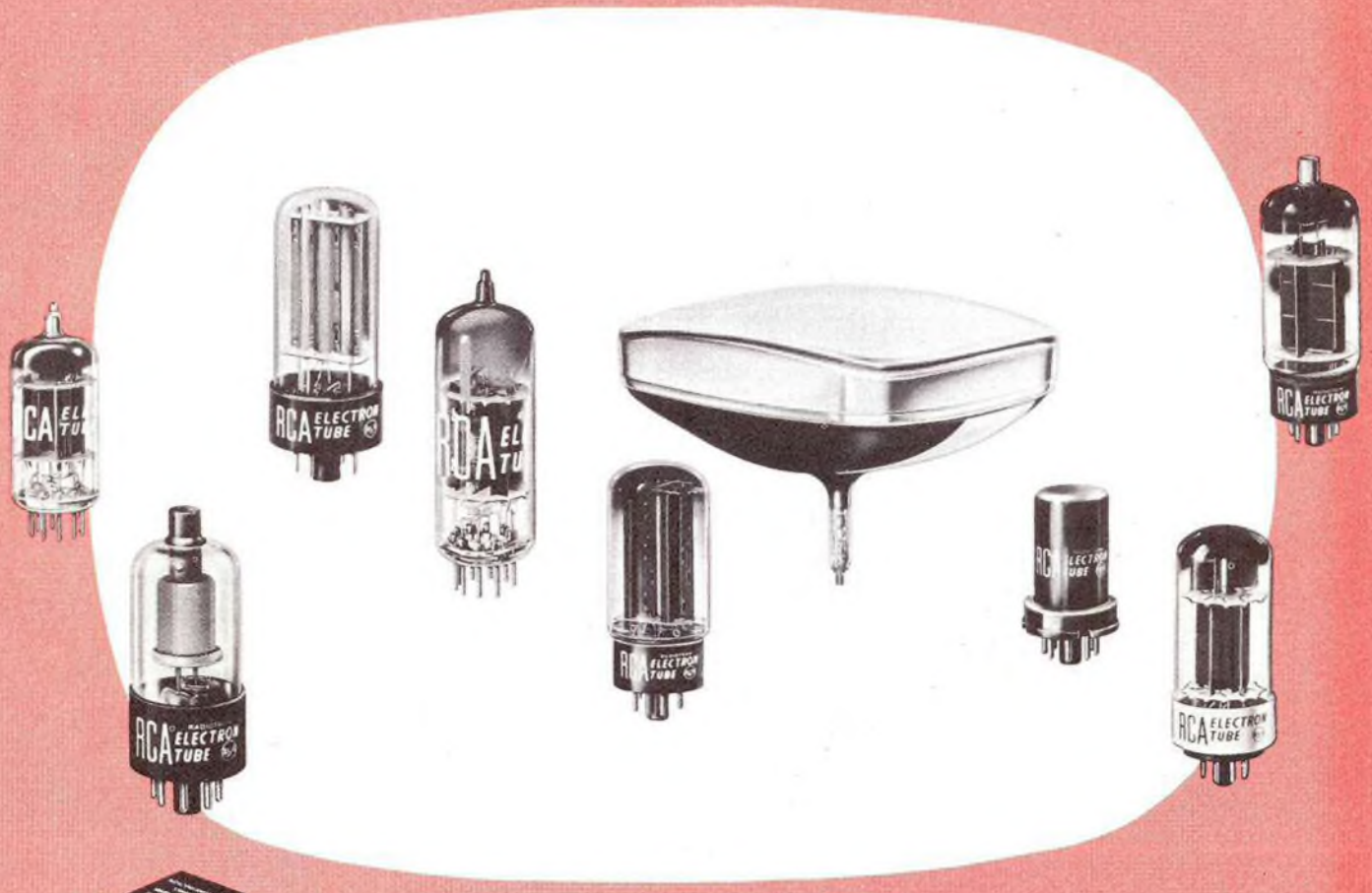
PRICE 35 CENTS

RCA receiving tubes and picture tubes



characteristics and socket connections for

- POWER AMPLIFIERS • VOLTAGE AMPLIFIERS • OSCILLATORS
- RECTIFIERS • DETECTORS • CONVERTERS • MIXERS
- TV PICTURE TUBES

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RCA Receiving Tubes

Chart 1. is arranged to permit quick determination of the type designations of (A) RCA picture tubes according to their envelope size, focus method, and deflection method; and (B) all other RCA receiving tubes according to their functions and filament or heater voltages. Chart 2. starting on page 6 lists characteristics and operating data of all RCA receiving tubes. Chart 3. starting on pages 38 and 39 lists characteristics and operating data of all RCA picture tubes. Both Charts 2. and 3. include RCA discontinued types.

1. RECEIVING TUBE CLASSIFICATION CHART

A—Picture Tubes

BLACK-AND-WHITE TYPES						
	Focusing Method	Deflection Method	Approximate Envelope Diameter (Inches)			
			5-15	16-17	19-22	24-27
Directly Viewed	electrostatic	electrostatic	7JP4			
	electrostatic	magnetic	8DP4 14ATP4 14HP4 14QP4-A 14RP4 14RP4-A 14WP4/14ZP4	17AVP4/17ATP4 17AVP4-A/17ATP4-A 17BJP4 17BVP4 17BZP4/17CAP4/ 17CKP4/17BRP4 17CDP4 17CFP4 17CKP4 17CYP4 17DKP4 17DSP4 17GP4 17HP4/17RP4 17HP4-B/17RP4-C 17LP4/17VP4 17LP4-A/17VP4-B 17TP4	20HP4-A/20MP4 20HP4-D 21ALP4 21ALP4-B/21ALP4-A 21ATP4-A/21ATP4 21AVP4/21AUP4 21AVP4-B/21AUP4-B/ 21AVP4-A/21AUP4-A 21BTP4 21CBP4-A 21CEP4 21CXP4 21DAP4 21DEP4-A/21DEP4/21CZP4 21DFP4 21DLP4 21DSP4 21EQP4 21MP4 21FP4-A 21FP4-C 21XP4-A 21YP4 21YP4-A	24AEP4 24AHP4 24AUP4 24BAP4 24DP4-A/ 24YP4
	magnetic	magnetic	10BP4-A 10FP4-A 12KP4-A 12LP4-A 14EP4/14CP4/14BP4	16AP4-A 16DP4-A 16GP4-B 16LP4-A 16RP4/16KP4 16RP4-A/16KP4-A 16TP4 16WP4-A 17BP4-A 17BP4-B 17GP4 17QP4 17QP4-A	19AP4-B 20DP4-A/20CP4-A 20DP4-C/20CP4-D 21ACP4-A/21BSP4/21AMP4-A 21AP4 21AWP4 21EP4-A 21EP4-B 21WP4 21WP4-A 21ZP4-A 21ZP4-B	24ADP4/ 24VP4-A/ 24CP4-A/ 27EP4 24TP4 27MP4 27RP4
Projection	electrostatic	magnetic	5TP4			
COLOR TYPES						
Directly Viewed	electrostatic	magnetic	15GP22		21AXP22-A 21AXP22-A/ 21AXP22 21CYP22	

B—Rectifiers, Detectors, Power and Voltage Amplifiers, Converters and Mixers, Electron-Ray Tubes, Gated Amplifiers, and Shunt Voltage Regulators

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts			1.25—1.4		2.0—5.0			6.3—117.0		
			Miniature	*Other*	*Octal*	*Other*	*Miniature*	*Miniature*	*Octal*	*Other*
RECTIFIER DIODES—Vacuum Types *(For rectifiers with amplifier units, see POWER AMPLIFIERS).*										
Single Diode	Application	Peak Inverse Volts						6AF3 6V3-A 17H3*	6AU4-GTA 6AX4-GT 6BY5-GA• 6DA4 6DE4 6W4-GT 12D4‡ 12AX4-GTA‡ [17AX4-GT• 17D4‡] 17DE4‡ 19AU4‡ 25AX4-GT 25W4-GT	
	Damper	Above 1500						[12AF3‡]		
	Low-Current Pulsed or RF Rectifier	Above 1500	1AX2 1V2 [1X2-A] [1X2-B]	[1B3-GT 1G3-GT/ 1B3-GT 1J3 1K3]	3A3 3B2		3A2			
	60-Cycle Half-Wave Rectifier	Below 1500						35W4 36AM3 50DC4 117Z3	6W4-GT 25W4-GT [35Z4-GT 35Z5-GT]	1-v 35Y4 35Z3
Twin Diode	Doubler	Below 1500							[25Z6-GT 50Y6-GT 50Y7-GT 117Z6-GT	25Z5] 50X6
	Full-Wave Rectifier	Above 1500			[3AS4-A 5T4 5U4-G 5U4-GB 5X4-G]	5Z3]				
		Below 1500			5V3 [5V4-G 5V4-GA 5Y3-GT 5Y4-GT 5Z4]	3AZ4 80]		6BW4 [6X4 12X4	6AX5-GT 6X5-GT]	7Y4 7Z4 84/6Z4
Twin Diode (Gas Type)			OZ4, OZ4-G							

* 300-milliampere heater type having controlled warm-up time for series-string TV operation.

• 450-milliampere heater type having controlled warm-up time for series-string TV operation.

‡ 600-milliampere heater type having controlled warm-up time for series-string TV operation.

◆ Twin type.

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RECEIVING TUBE CLASSIFICATION CHART — Cont'd

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts			1.25—1.4		2.0—5.0			6.3—117.0		
			Miniature	Other	Octal	Other	Miniature	Miniature	Octal	Other
DETECTOR DIODES *(For diode detectors with amplifier units, see VOLTAGE AMPLIFIERS and also POWER AMPLIFIERS).*										
Single Diode			1A3							
Twin Diode							2EN5• 3AL5‡	6AL5 12AL5	6H6 12H6	7A6
Triple Diode								6BC7 6BJ7		
POWER AMPLIFIERS *with and without Rectifiers, Diode Detectors, and Voltage Amplifiers.*										
Triodes	low-mu	single unit				2A3 45			6CK4	
	medium-mu	single unit						6C4		
	high-mu	single unit							6AC5-GT	
		twin unit							6AQ7-GT [6N7 6N7-GT]	
Tetrodes		single unit						12K5°		
		with one diode						12EM6°		
		with two diodes						12DL8° 12DS7° 12DV8° 12J8°		
		with triode						12AL8°		
Beam Power Tubes		single unit		3Q5-GT* 3LF4*	5V6-GT‡		3BN6‡† 4BN6•‡ 5AQ5‡ 5CZ5‡	6BN6 6AQ5-A• 6AS5 6BK5 6BQ5 6CU5 6CZ5• 6DS5 6DT5 6EM5 8BQ5‡ 8EM5‡ 12AB5§ 12AQ5 12BK5‡ 12CA5‡ [12CU5‡] [12CU5/12C5‡] [12DB5‡ 12DT5‡] 12ED5• 12R5‡ 25BK5△ 25C5 25CA5△ 32ET5 [35B5 35C5] [50B5 50C5] 6973 7189	6AU5-GT 6AV5-GA [6BG6-G 6BG6-GA] 6BQ6-GTB/6CU6 6CB5-A [6CD6-GA 6DC6-GT 6DN6] 6DQ5 6DQ6-A [6L6 6L6-GB] [6V6 6V6-GT] [6Y6-G 6W6-GT] [6Y6-GA 12AV5-GA‡] 12BQ6-GTB/12CU6‡ 12DQ6-A‡ 12EN6‡ 12L6-GT‡ 12V6-GT 12W6-GT‡ 17BQ6-GTB• 17DQ6-A• 18A5△ 19BG6-GA [25AV5-GA°] [25BQ6-GTB/25CU6] [25CD6-GA‡] [25CD6-GB‡] 25DN6‡ [25L6 25L6-GT] 35L6-GT 50L6-GT [5881 7027-A]	7A5 7C5 35A5 50A5
		with diode							70L7-GT 117L7/M7-GT 117P7-GT 117N7-GT	
Pentodes		single unit	[1S4 3S4*] [3Q4* 3V4*]	1A5-GT 1C5-GT 1LB4		47		6AR5 [6CL6 6CM6 6EH5 12DQ7▲ 12EH5‡ 25EH5 50EH5 [6AK6	6AG7 [6F6 6F6-G 6F6-GT [6K6-GT 6G6-G]	7AD7 42] 7B5 41] 43
		with triode							6AD7-G	
CONVERTERS & MIXERS *(For other types used as Mixers, see VOLTAGE AMPLIFIERS).*										
Converters	pentagrid		1L6 1R5	1A7-GT 1EA6 1LC6				6BA7 6BE6 12AD6° 12BA7 18FX6 [12BE6	[6A8 6A8-G 6A8-GT 6SB7-Y] 6SA7 6SA7-GT] 12A8-GT 12SA7 12SA7-GT]	6A7] 7B8 7Q7 14Q7
	triode-tetrode						5CL8-A‡	6CL8-A• 9CL8△		
	triode-pentode						[5AT8‡ 5CG8‡ 5U8‡ 5X8‡]	[6AT8 6AT8-A• 6CG8-A• 6X8] 6FA8• 6EH8° 6U8-A• 9U8-A△ 19X8		
	triode-hexode								6K8 12K8	
	triode-heptode									7J7
	octode									7A8
Mixers	pentagrid								6L7	
ELECTRON-RAY TUBES.										
Indicator								EM84/6FG6		6AB5/6N5 6E5 6U5
Single	with triode									
Twin	without triode								6AF6-G	
Triple	without triode								6AL7-GT	

△ 300-milliampere heater type having controlled warm-up time for series-string TV operation.

• 450-milliampere heater type having controlled warm-up time for series-string TV operation.

‡ 600-milliampere heater type having controlled warm-up time for series-string TV operation.

▲ Heater arranged for either 6.3- or 12.6-volt operation.

† Beam tube.

° For use in automobile receivers, with electrode voltages supplied directly from a 12-volt storage battery.

* Filament arrangement for either 1.4- or 2.8-volt operation.

§ For use in automobile radio receivers operating from 12-volt storage batteries.

RECEIVING TUBE CLASSIFICATION CHART—Cont'd

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts			1.25—1.4		2.0—5.0			6.3—117.0		
			Miniature	Other	Octal	Other	Miniature	Miniature	Octal	Other
VOLTAGE AMPLIFIERS *with and without Diode Detectors;* TRIODE, TETRODE, AND PENTODE DETECTORS; OSCILLATORS.										
Triodes	low-mu							12FK6°		
	medium-mu	single unit		1LF3		27	2AF4-A‡ 3AF4-A• 2BN4‡	[6AF4 6AF4-A] 6BC4 [6BN4 6BN4-A] 6S4-A‡ 6T4 12B4-A▲‡	6AH4-GT [6C5 6C5-GT] [6J5 6J5-GT] 12J5-GT	7A4
		with pentode					[5B8‡ 5AN8‡ 5AV8‡ 5BE8‡ 5BR8‡] 5U8‡	6AU8‡ [6AX8] 6BH8‡ [6U8-A•] [6AN8 6CH8] 6AZ8 6BA8-A‡ 6BR8 6BR8-A• 6CX8 6CU8• 6EA8• 6EH8• 8AU8• 8BH8• 8CX8‡ 9U8-A△ 12CT8△ 7199◆	6AD7-G	6F7
		with tetrode					[5CL8-A‡ 5CQ8‡]	[6CL8-A•] [6CQ8•] 9CL8△ 12AL8°		
		with two diodes						6BJ8‡ [6BF6] [12AE6° 12AE6-A] 12AJ6° 12FK6° 12FM6° [12BF6]	6R7 6SR7] 12SR7]	
		twin unit					[4BQ7-A‡ 4BS8‡] [4BC8‡ 4BZ7‡] 5BK7-A‡ 5BQ7-A• 5J6‡	[6BC8 6BQ7-A 6BS8 6BZ7] 6BK7-B• 6BZ8 [6CG7‡ 6FW8 6J6 7AU7●‡ 8CG7• 9AU7▪• 12AU7-A▲ 12AV7▲ 12AY7 12BH7-A▲‡ 12U7° 19J6	6BL7-GTA 6BX7-GT 6C8-G 6F8-G 6SN7-GTB‡ 12AH7-GT 12SN7-GT	7AF7 7F8 7N7 14AF7 14F8
		dual unit■						6CM7‡ 6CS7‡ 6CY7 6DE7 6DR7 8CM7• 10DE7‡ 11CY7• 13DE7•	6DN7	
	high-mu	single unit						6AB4 6AM4 6AN4	6F5 [6SF5 6SF5-GT] 12SF5	7B4
		with diode		1H5-GT 1LH4						
		with two diodes					3AV6‡	[6AQ6 6AT6 6BN8‡] [6AV6 6CN7] 8BN8• 8CN7▪• 9BR7•‡ 12AT6 12AV6 12BR7▲ 12EL6° 18FY6	6Q7 6Q7-GT] 6SQ7 6SQ7-GT] 12Q7-GT [12SQ7 12SQ7-GT]	7B6 7C6 7K7 7X7 14B6 75
		with three diodes					5T8‡	[6T8 6T8-A•] 19T8	6S8-GT	
		twin unit						6DT8 12BZ7▲ [12AT7▲ 12AX7▲ 12AZ7▲ 12DT8 7025◆]	6SC7 6SL7-GT 12SC7 12SL7-GT	7F7 14F7
		with pentode					5CM8‡	[6AW8‡ 6AW8-A‡] 6CM8• 6EB8 8AW8-A• 8EB8‡ 10C8△		
Tetrodes	sharp-cutoff	single unit				24-A	2CY5‡ 3CY5•	[6CY5 6FV6]		
		with triode					[5CL8-A‡ 5CQ8‡]	6CL8-A• 6CQ8• 9CL8△		
Pentodes	remote-cutoff	single unit	1T4	1LG5				6BJ6 [6BA6 6BD6 12AC6° 12AF6° 12BL6° [12BA6 [12BD6 12CN5° 12DZ6°	6AB7 6S7 6SG7] 6SK7 6SK7-GT] [6K7 6K7-GT 12SG7] 12SK7 12SK7-GT] 6SS7 12K7-GT	6D6 7A7 7AH7 7B7 7H7 7S] 14A7
		with triode								6F7
		with diode	1DN5					6CR6 12CR6	6SF7 12SF7	
		with two diodes						12F8°	6B8 12C8	7E7 7R7 14R7
	semi-remote cutoff	single unit					3BZ6‡ 4BZ6•	6BZ6 6DC6 18FW6		
		with triode						6AZ8		

RECEIVING TUBE CLASSIFICATION CHART—Cont'd

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts			1.25—1.4		2.0—5.0			6.3—117.0		
			Miniature	Other	Octal	Other	Miniature	Miniature	Octal	Other
VOLTAGE AMPLIFIERS *with and without Diode Detectors* **TRIODE, TETRODE, AND PENTODE DETECTORS; OSCILLATORS.**										
Pentodes	sharp-cutoff	single unit	1L4 1U4	1LN5 1N5-GT			3AU6‡ [3BC5‡] 3CB6‡ [3CF6‡] 3DK6‡ 3DT6‡ 4AU6• 4BC5• [4CB6•] [4DE6•] 4DT6• 4EW6‡	[6AG5 6BC5] 6AH6 6AK5 6AU6 6BH6 [6CB6 6DE6] [6CB6-A▲] 6CF6 12AU6 [6DK6] 6CY5 6DT6 12AW6 12BV7▲ 12BY7-A▲‡ 12CX6° 12EA6° 12EK6° 6EW6 5879♦	6J7 6J7-GT 6W7-G 6SH7 12J7-GT 6AC7 6SJ7 12SH7 12SJ7	6C6 7AG7 7C7 7G7 7L7 7V7 7W7 14C7
		twin unit					3BU8‡ 4BU8•	6BU8		
		with triode					[5AN8‡] [5AV8‡] 5B8‡ [5BE8‡] [5BR8‡] 5CM8‡ 5U8‡	6AN8 [6AX8 6U8-A] 6CH8 6AU8‡ 6AW8‡ 6BH8‡ [6AW8-A‡ 6BA8-A‡] [6BR8 6BR8-A] 6CM8• 6CU8• 6CX8 6EA8• 6EB8 6EH8• 8AU8• 8AW8-A• 8BH8• 8CX8‡ 8EB8‡ 9U8-A△ 10C8= 12CT8△ 7199♦		
		with diode	1S5 1U5	1LD5			5AM8‡ 5AS8‡	6AM8-A• 6AS8 6BY8‡		
		with two diodes					5BT8‡			
Beam Pentode		single unit					[3BN6‡†] 4BN6•†	6BN6		
HORIZONTAL AND VERTICAL DEFLECTION AMPLIFIERS AND OSCILLATORS. *(for TV Receivers)*										
Triodes	low-mu	single unit							6CK4	
	medium-mu	single unit						6S4-A‡ 12B4-A▲‡	6AH4-GT	
		twin unit						6CG7‡ 7AU7•‡ 8CG7• 12AU7-A▲ 12BH7-A▲‡	6BL7-GTA 6BX7-GT 6SN7-GTB‡	
		dual unit■						6CM7‡ 6CS7‡ 6CY7 6DE7 8CM7• 10DE7‡ 11CY7• 13DE7•	6DN7	
		with two diodes						6BJ8‡		
Beam Power Tubes		single unit					5CZ5‡	6CM6 6CZ5• 6DT5 6EM5 8EM5 [12DB5‡ 12DT5‡] 12R5	6AU5-GT 6AV5-GA 6BG6-G 6BG6-GA 6BQ6-GTB/6CU6 6CB5 6CB5-A [6CD6-GA 6DN6] 6DQ5 6DQ6-A 6W6-GT 12AV5-GA‡ 12DQ6-A‡ 12BQ6-GTB/12CU6‡ 12EN6‡ 17BQ6-GTB• 17DQ6-A• 18A5△ 19BG6-GA [25AV5-GA▲] [25BQ6-GTB/25CU6] [25CD6-GA‡] [25CD6-GB‡] 25DN6‡	
Pentode		single unit							6K6-GT (Triode connected)	
GATED AMPLIFIERS										
Pentagrid Amplifier							3BY6‡ 3CS6‡ 4CS6•	6BY6 6CS6 12EG6°		
SHUNT VOLTAGE REGULATORS										
Beam Triode	sharp-cutoff								6BK4	

△ 300-milliampere heater type having controlled warm-up time for series-string TV operation.

• 450-milliampere heater type having controlled warm-up time for series-string TV operation.

‡ 600-milliampere heater type having controlled warm-up time for series-string TV operation.

▲ Heater arranged for either 6.3- or 12.6-volt operation.

• Heater arranged for either 3.5- or 7.0-volt operation.

° For use in automobile receivers, with electrode voltages supplied directly from a 12-volt storage battery.

■ With dissimilar triodes.

♦ For high-quality, high-fidelity audio applications where low noise and hum characteristics are primary considerations.

† Beam tube.

2. RECEIVING TUBE CHARACTERISTICS CHART

In this chart, characteristics of RCA receiving tubes, including discontinued RCA types, are listed in numerical-alphabetical sequence of type designations.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
00-A	Detector Triode	D12a	D.C. F	5.0	0.25	Grid-Leak Detector	45	Grid Return to (−) Filament			1.5	30000	666	20	——	——	00-A
01-A	Detector★ Amplifier	D12a	D.C. F	5.0	0.25	Class A Amplifier	90 135	− 4.5 − 9.0	——	——	2.5 3.0	11000 10000	725 800	8.0 8.0	——	——	01-A
0Y4	Half-Wave Gas Rectifier	B2	Cold	——	——	Rectifier	Max. Peak Inverse Plate Volts, 300 Max. DC Starting Volts, 95				Max. Peak Plate Current, 500 ma. Max. DC Output Current, 75 ma.						0Y4
0Z4 0Z4-G	Full-Wave Gas Rectifier	B3 B2	Cold	——	——	Rectifier	Starting Supply Voltage per Plate, 300 min. peak volts. Peak Plate Current, 200 max. ma. DC Output Current, 75 max., 30 min. ma. DC Output Voltage, 300 max. volts.										0Z4 0Z4-G
1A3	HF Diode	B0	H	1.4	0.15	Detector Rectifier	Max. Peak Inverse Volts, 330 Max. Peak Plate Ma., 5				Max. DC Output Ma., 0.5 Max. Peak Heater-Cathode Volts, 140						1A3
1A4-P	Remote-Cutoff Pentode	D9	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1D5-GP.										1A4-P
1A5-GT	Power Amplifier Pentode	C2c	D.C. F	1.4	0.05	Class A Amplifier	85 90	− 4.5 − 4.5	85 90	0.7 0.8	3.5 4.0	300000 300000	800 850	——	25000 25000	0.100 0.115	1A5-GT
1A6	Pentagrid Converter ◘	D8	D.C. F	2.0	0.06	Converter	135 180	− 3.0 min.	67.5 67.5	2.5 2.4	1.2 1.3	400000 500000	Anode-Grid (★2): 180▲ max. volts, 2.3 ma. Oscillator-Grid (★1) Resistor◆, Conversion Transcond., 300 micromhos.				1A6
1A7-GT	Pentagrid Converter ◘	C3	D.C. F	1.4	0.05	Converter	90	0	45♣	0.7	0.6	600000	Anode-Grid (★2): 90 max. volts, 1.2 ma. Oscillator-Grid (★1) Resistor, 0.2 meg. Conversion Transcond., 250 micromhos.				1A7-GT
1AC5	Power Pentode	A	F	1.25	0.04	Class A Amplifier	45 67.5	− 3 − 4.5	45 67.5	0.2 0.4	1.0 2.0	170000 150000	600 750	——	40000 25000	0.015 0.050	1AC5
1AD5	Sharp-Cutoff Pentode	A	F	1.25	0.04	Class A Amplifier	30 67.5	0 0	30 67.5	0.16 0.75	0.45 1.85	700000 700000	430 735	——	——	——	1AD5
1AX2	Half-Wave Rectifier	B5a	F	1.4	0.65	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 25000 Max. Peak Plate Ma., 11				Max. Average Plate Ma., 1						1AX2
1B3-GT	Half-Wave Rectifier	D2	F	1.25	0.2	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 30000 Max. Peak Plate Ma., 17				Max. Average Plate Ma., 2 Max. Frequency of Supply Voltage, 300 Kc						1B3-GT
1B4-P	RF Amplifier Pentode	D8	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1E5-GP.										1B4-P
1B5/25S	Duplex-Diode Triode	D5	D.C. F	2.0	0.06	Triode Unit as Amplifier	For other characteristics, refer to Type 1H6-G.										1B5/25S
1B7-GT	Pentagrid Converter ◘	C3	D.C. F	1.4	0.10	Converter	90	0	45♣	1.3	1.5	350000	Anode-Grid (★2): 90 max. volts, 1.6 ma. Oscillator-Grid (★1) Resistor, 0.2 meg. Conversion Transcond., 350 micromhos				1B7-GT
1C5-GT	Power Amplifier Pentode	C2c	D.C. F	1.4	0.10	Class A Amplifier	83 90	− 7.0 − 7.5	83 90	1.6 1.6	7.0 7.5	110000 115000	1500 1550	——	9000 8000	0.20 0.24	1C5-GT
1C6	Pentagrid Converter ◘	D9	D.C. F	2.0	0.12	Converter	For other characteristics, refer to Type 1C7-G.										1C6
1C7-G	Pentagrid Converter ◘	D8	D.C. F	2.0	0.12	Converter	135 180	− 3.0 − 3.0	67.5 67.5	2.5 2.0	1.3 1.5	600000 700000	Anode-Grid (★2): 180▲ max. volts, 4.0 ma. Oscillator-Grid (★1) Resistor◆, Conversion Transcond., 325 micromhos.				1C7-G
1D5-GP	Remote-Cutoff Pentode	D8	D.C. F	2.0	0.06	Class A Amplifier	90 180	− 3.0 min.	67.5 67.5	0.9 0.8	2.2 2.3	600000 1.0§	720 750	——	——	——	1D5-GP
1D5-GT	Remote-Cutoff Tetrode	D8	D.C. F	2.0	0.06	Class A Amplifier	180	− 3.0	67.5	0.7	2.2	600000	650	——	——	——	1D5-GT
1D7-G	Pentagrid Converter ◘	D8	D.C. F	2.0	0.06	Converter	For other characteristics, refer to Type 1A6.										1D7-G
1D8-GT	Diode-Triode-Power Pentode	C2c	D.C. F	1.4	0.10	Pentode Unit as Class A Amplifier	45 90	− 4.5 − 9.0	45 90	0.3 1.0	1.6 5.0	300000 200000	650 925	——	20000 12000	0.035 0.200	1D8-GT
						Triode Unit as Class A Amplifier	45 90	0 0	——	——	0.3 1.1	77000 43500	325 575	25 25	——	——	
1DN5	Diode Remote-Cutoff Pentode	B0	F	1.4	0.5	Triode Unit as Class A Amplifier	67.5	0	67.5	0.55	2.1	600000	630	——	——	——	1DN5
1E5-GP	RF Amplifier Pentode	D8	D.C. F	2.0	0.06	Class A Amplifier	90 180	− 3.0 − 3.0	67.5 67.5	0.7 0.6	1.6 1.7	1.0§ 1.3§	600 650	——	——	——	1E5-GP
1E7-GT	Twin-Pentode Power Amplifier	C2c	D.C. F	2.0	0.24	Class A Amplifier	135	− 7.5	135	——	Power Output is for one tube at stated plate-to-plate load.				24000	0.575	1E7-GT
1E8	Pentagrid Converter▲	A	F	1.25	0.04	Converter	45 67.5	0 0	45 67.5	1.1 1.5	0.6 1.0	400000 400000	Oscillator Grid (★1) Resistor, 0.1 meg. Conversion Transcond., 150 micromhos				1E8
1F4	Power Amplifier Pentode	D12a	D.C. F	2.0	0.12	Amplifier	For other characteristics, refer to Type 1F5-G.										1F4
1F5-G	Power Amplifier Pentode	D11c	D.C. F	2.0	0.12	Class A Amplifier	90 135	− 3.0 − 4.5	90 135	1.1 2.4	4.0 8.0	240000 200000	1400 1700	——	20000 16000	0.11 0.31	1F5-G
1F6	Duplex-Diode Pentode	D9	D.C. F	2.0	0.06	Pentode Unit as Amplifier	For other characteristics, refer to Type 1F7-G.										1F6
1F7-G	Duplex-Diode Pentode	D8	D.C. F	2.0	0.06	Pentode Unit as Class A Amplifier	180	− 1.5	67.5	0.7	2.2	1.0§	650	——	——	——	1F7-G
1G3-GT/1B3-GT	Half-Wave Rectifier	C10	F	1.25	0.2	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 26000 (Abs.) Max. Peak Plate Ma., 50				Max. Average Plate Ma., 0.5						1G3-GT/1B3-GT
						HV Rectifier in RF Power Supplies	Max. Peak Inverse Plate Volts, 33000 (Abs.) Max. Peak Plate Ma., 30				Max. Average Plate Ma., 1.0 Frequency Range of Supply Voltage, 1.5 to 100 Kc						
1G4-GT	Medium-Mu Triode	C2c	D.C. F	1.4	0.05	Class A Amplifier	90	− 6.0	——	——	2.3	10700	825	8.8	——	——	1G4-GT
1G5-G	Power Amplifier Pentode	D11c	D.C. F	2.0	0.12	Class A Amplifier	90 135	− 6.0 −13.5	90 135	2.5 2.5	8.5 8.7	133000 160000	1300 1550	——	8500 9000	0.25 0.55	1G5-G
1G6-GT	Twin-Triode Amplifier	C2c	D.C. F	1.4	0.10	Class B Amplifier	90	0	——	——	Power Output is for one tube at stated plate-to-plate load.				12000	0.350	1G6-GT
1H4-G	Detector★ Amplifier	D8	D.C. F	2.0	0.06	Class A Amplifier	135	− 9.0	——	——	3.0	10300	900	9.3	——	——	1H4-G
						Class B Amplifier	157.5	−15.0	——	——	1.0♣	——	——	——	8000	2.1†	
1H5-GT	Diode High-Mu Triode	C3	D.C. F	1.4	0.05	Triode Unit as Class A Amplifier	90	0	——	——	0.15	240000	275	65	——	——	1H5-GT
1H6-G	Duplex-Diode Triode	D8	D.C. F	2.0	0.06	Triode Unit as Class A Amplifier	135	− 3.0	——	——	0.8	35000	575	20	——	——	1H6-G
1J3	Half-Wave Rectifier	D2	F	1.25	0.2	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 26000 (Abs.) Max. Peak Plate Ma., 50				Max. Average Plate Ma., 0.5						1J3
1J5-G	Power Pentode	D11c	D.C. F	2.0	0.12	Class A Amplifier	135	−16.5	135	2.0	7.0	105000	950	——	13500	0.45	1J5-G
1J6-G 1J6-GT	Twin-Triode Amplifiers	C10	D.C. F	2.0	0.24	Class B Amplifier	135 135	0 − 3.0	——	——	Power Output is for one tube at stated plate-to-plate load.				10000 10000	2.1 1.9	1J6-G 1J6-GT
1K3	Half-Wave Rectifier	C10	F	1.25	0.2	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 26000 (Abs.) Max. Peak Plate Ma., 50				Max. Average Plate Ma., 0.5						1K3
1L4	RF Amplifier Pentode	B0	D.C. F	1.4	0.05	Class A Amplifier	90 90	0 0	67.5 90	1.2 2.0	2.9 4.5	600000 260000	925 1025	——	——	——	1L4
1L6	Pentagrid Converter ◘	B0	D.C. F	1.4	0.05	Converter	90	0	45	0.6	0.5	650000	Anode-Grid (★2): 90 max. volts, 1.2 ma. Oscillator Grid (★1) Resistor, 0.2 meg. Conversion Transcond., 300 micromhos.				1L6

For data on RCA Picture Tubes see pages 38 through 47.

Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
1LA4	Power Amplifier Pentode	B5	D.C. F	1.4	0.05	Amplifier	For other characteristics, refer to Type 1A5-GT.										1LA4
1LA6	Pentagrid Converter ●	B5	D.C. F	1.4	0.05	Converter	90	0	45♣	0.6	0.55	750000	Anode Grid (# 2): 90 max. volts, 1.2 ma. Oscillator Grid (# 1) Resistor, 0.2 meg. Conversion Transcond., 250 micromhos.				**1LA6**
1LB4	Power Amplifier Pentode	B6	D.C. F	1.4	0.05	Class A Amplifier	For other characteristics, refer to Pentode Unit of Type 1D8-GT.										**1LB4**
1LC5	Sharp-Cutoff Pentode	B5	D.C. F	1.4	0.05	Class A Amplifier	45 90	0 0	45 45	0.35 0.30	1.10 1.15	700000 1.0§	750 775	— —	— —	— —	1LC5
1LC6	Pentagrid Converter ●	B5	D.C. F	1.4	0.05	Converter	45 90	0 0	35 35	0.75 0.70	0.70 0.75	300000 650000	Anode-Grid (# 2): 50 max. volts, 1.4 ma. Oscillator-Grid (# 1) Resistor, 0.2 meg. Conversion Transcond., 275 micromhos.				**1LC6**
1LD5	Diode-Pentode	B5	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	Plate Supply, 90 v applied through 1 meg. resistor. Screen Supply, 90 v applied through 5.6 meg. resistor. Grid Bias, 0 v. Grid Resistor, 10 megohms. Voltage Gain, 101 approx.										**1LD5**
1LE3	Medium-Mu Triode	B5	D.C. F	1.4	0.05	Class A Amplifier	90 90	0 — 3	— —	— —	4.5 1.4	11200 19000	1300 760	14.5 14.5	— —	— —	**1LE3**

Light Face = Discontinued type.

One vertical rule before or after type No. = GT or other larger glass type.

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Four vertical rules before or after type No. = Subminiature type.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by $\frac{1}{8}$ (approx.) of filament voltage.

● Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

▸ Supply voltage applied through 20000-ohm voltage-dropping resistor.

♣ Obtained preferably by using 70000-ohm voltage-dropping resistor in series with a 90-volt supply.

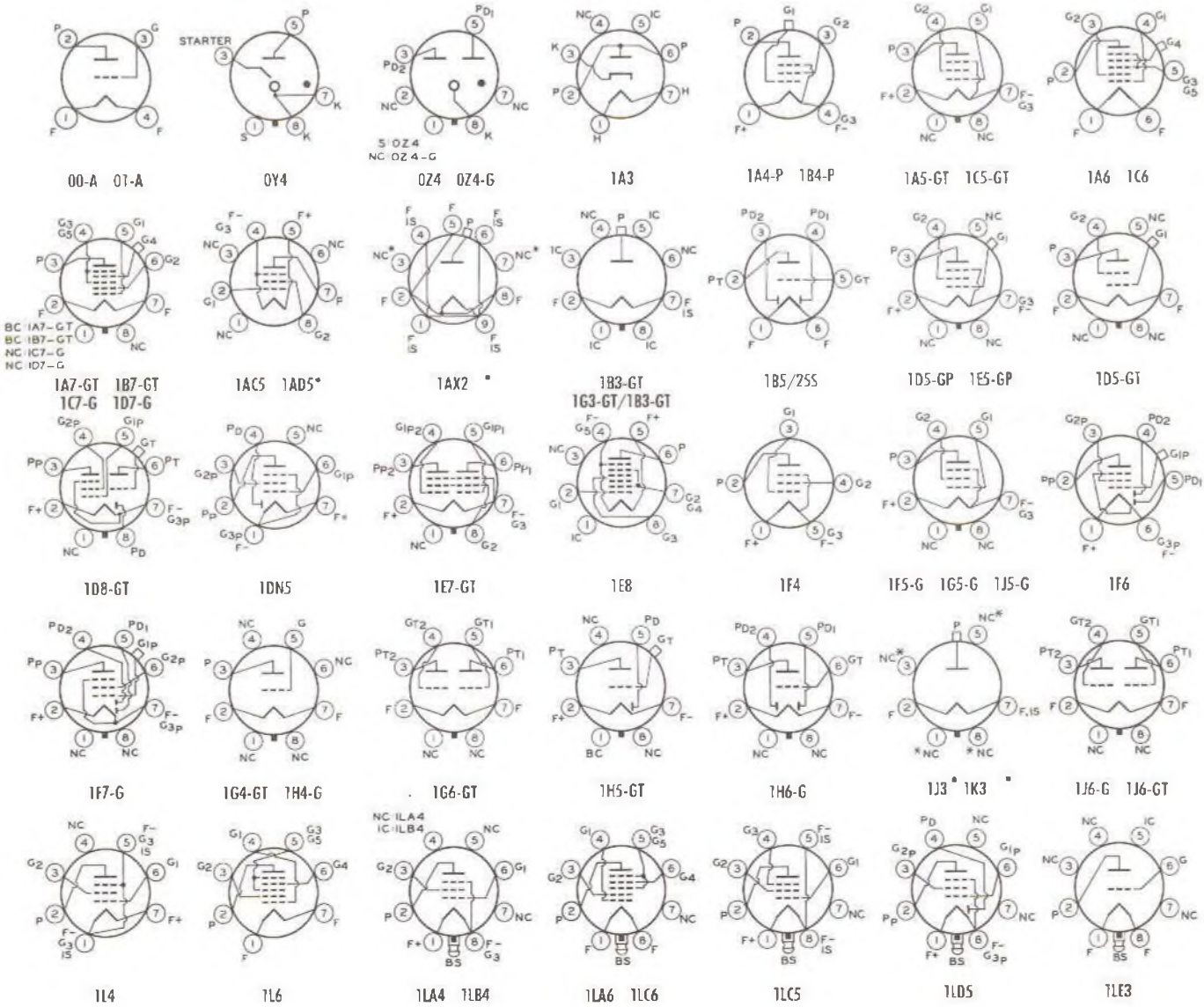
§ Megohms.

♠ For two tubes.

† Power output is for two tubes at stated plate-to-plate load.

★ For Grid-leak Detection—plate volts, 45; grid return to + filament or to cathode.

◔ 50000 ohms.



• Pin No. 4 includes an internal shield.

■ Pin numbers with asterisks may be connected to filament, otherwise do not use.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
1LG5	Remote-Cutoff Pentode	B6	D.C. F	1.4	0.05	Class A Amplifier	90 90	0 — 1.5	45 90	0.4 0.9	1.7 3.7	1.0§ 500000	800 1150	— —	— —	— —	1LG5
1LH4	Diode High-Mu Triode	B5	D.C. F	1.4	0.05	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 1H5-GT.										1LH4
1LN5	Sharp-Cutoff Pentode	B5	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.35	1.6	1.1§	800	—	—	—	1LN5
1N5-GT	Sharp-Cutoff Pentode	C3	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.3	1.2	1.5§	750	—	—	—	1N5-GT
1N6-G	Diode—Power Amplifier Pentode	D1	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	90	— 4.5	90	0.7	3.4	300000	800	—	25000	0.1	1N6-G
1P5-GT	Remote-Cutoff Pentode	C3	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.7	2.3	800000	750	—	—	—	1P5-GT
1Q5-GT	Beam Power Tube	C2t	D.C. F	1.4	0.1	Class A Amplifier	90	— 4.5	90	1.3	9.5	90000	2200	—	8000	0.27	1Q5-GT
1R5	Pentagrid Converter▲	B0	D.C. F	1.4	0.05	Converter	45 90	0 0	45 67.5	1.9 3.2	0.7 1.6	600000 600000	Grid #1 Resistor, 100000 ohms. Conversion Transcond., 300 μmhos.				1R5
1S4	Power Amplifier Pentode	B0	D.C. F	1.4	0.1	Class A Amplifier	45 90	— 4.5 — 7.0	45 67.5	0.8 1.4	3.8 7.4	100000 100000	1250 1575	—	8000 8000	0.065 0.27	1S4
1S5	Diode-Pentode	B0	D.C. F	1.4	0.05	Pentode Unit as AF Amplifier	Plate Supply, 90 v applied through 1 meg. resistor. Screen Supply, 90 v applied through 3.1 meg. resistor. Grid Bias, 0 volts. Grid Resistor, 10 megohms. Voltage Gain, 66 approx.										1S5
1T4	Remote-Cutoff Pentode	B0	D.C. F	1.4	0.05	Class A Amplifier	45 90	0 0	45 67.5	0.7 1.4	1.7 3.5	350000 500000	700 900	—	—	—	1T4
1T5-GT	Beam Power Tube	C2t	D.C. F	1.4	0.05	Class A Amplifier	90	— 6.0	90	0.8	6.5	250000	1150	—	14000	0.17	1T5-GT
1T6	Diode-Pentode	A	F	1.25	0.04	Pentode Unit as Class A Amplifier	45 67.5	0 0	45 67.5	0.2† 0.4	0.75 1.6	500000 400000	475 600	—	—	—	1T6
1U4	Sharp-Cutoff Pentode	B0	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.50	1.0	1.0§	900	—	—	—	1U4
1U5	Diode-Pentode	B0	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	67.5	0	67.5	0.4	1.6	600000	625	—	—	—	1U5
1-v	Half-Wave Rectifier	D5	H	6.3	0.3	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 325 Max. DC Output Ma., 45					Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 0 ohms; at 150 volts, 30 ohms; at 325 volts, 75 ohms.					1-v
1V2	Half-Wave Rectifier	B0a	F	0.625	0.3	Pulsed Rectifier	Max. Peak Inverse Plate Volts, 7500 Max. Peak Plate Ma., 10					Max. Average Plate Ma., 0.5					1V2
1X2-A	Half-Wave Rectifier	B4	F	1.25	0.2	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 18000 Max. Peak Plate Ma., 10					Max. Average Plate Ma., 1					1X2-A
1X2-B	Half-Wave Rectifier	B4	F	1.25	0.2	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 22000 (Absolute Value) Max. Peak Plate Ma., 45					Max. Average Plate Ma., 0.5					1X2-B
2A3	Power Amplifier Triode	E3s	F	2.5	2.5	Class A Amplifier	250	−45.0	—	—	60.0	800	5250	4.2	2500	3.5	2A3
						Push-Pull Class AB1 Amplifier	300 300	Cath. Bias, 780 ohms◆ −62 volts, fixed bias			80.0◆ 80.0◆	—	—	—	5000 3000	10.0† 15.0†	
2A4-G	Glow-Discharge Triode	D3	D.C. F	2.5	2.5	Relay Service	Max. Peak Inverse Anode Volts, 200 Max. Peak Forward Anode Volts, 200					Max. Peak Anode Current, 1.25 ampere Max. Av. Anode Current, 0.1 ampere					2A4-G
2A5	Power Amplifier Pentode	D12a	H	2.5	1.75	Amplifier	For other characteristics, refer to Type 6F6-G.										2A5
2A6	Duplex-Diode High-Mu Triode	D9	H	2.5	0.8	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.										2A6
2A7	Pentagrid Converter ●	D9	H	2.5	0.8	Converter	For other characteristics, refer to Type 6A8.										2A7
2AF4-A	Medium-Mu Triode	B0	He	2.35	0.6	Class A Amplifier	80 100	Cath. Bias Res., 150 ohms			16 20	2270 2130	6600 7500	15 16	—	—	2AF4-A
						Oscillator at 950 Mc.	100	Grid Bias Volts, −4 Grid Res., 10000 ohms			22	Grid Current (Approx.), 400 μa. Useful Power Output, 160 milliwatts					
2B7	Duplex-Diode Pentode	D9	H	2.5	0.8	Pentode Unit as Amplifier	For other characteristics, refer to Type 6B8-G.										2B7
2BN4	Medium-Mu Triode	B0	He	2.3	0.6	Class A Amplifier	150	Cath. Bias	—	—	9	6300	6800	43	Cath. Bias Res., 220 ohms		2BN4
2CY5	Sharp-Cutoff Tetrode	B0	He	2.4	0.6	Class A Amplifier	125	−1	80	1.5	10	100000	8000	—	—	—	2CY5
2E5	Electron-Ray Tube	D5	H	2.5	0.8	Visual Indicator	For other characteristics, refer to Type 6E5.										2E5
2EN5	Twin Diode	B0	He	2.1	0.45	Horizontal Phase Detector	Max. Peak Heater-Cathode Volts, ±200 DC Volts Not to Exceed +100					Max. DC Plate Ma., 5					2EN5
3A2	Half-Wave Rectifier	B4	H	3.15	0.22	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 18000 Max. Peak Plate Ma., 80					Max. Average Plate Ma., 1.5					3A2
3A3	Half-Wave Rectifier	D2	H	3.15	0.22	Pulsed Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 30000 Max. Peak Plate Ma., 80					Max. Average Plate Ma., 1.5					3A3
3A8-GT	Diode-Triode RF Amplifier Pentode	C5	D.C. F	1.4 2.8	0.1 0.05	Triode Unit as Class A Amplifier	90	0	—	—	0.2	200000	325	65	—	—	3A8-GT
						Pentode Unit as Class A Amplifier	90	0	90	0.5	1.5	800000	750	—	—	—	
3AF4-A	Medium-Mu Triode	A1	He	3.2	0.45	Class A Amplifier	100 100	Cathode Bias Res., 150 ohms			16 20	2270 2130	6600 7500	15 16	—	—	3AF4-A
						Oscillator at 950 Mc.	100	Grid Bias Volts, −4 Grid Res., 10000 ohms			22	Grid Current (Approx.), 400 μa. Useful Power Output, 160 milliwatts					
3AL5	Twin Diode	A1	He	3.15	0.6	Detector Rectifier	Max. Peak Inverse Volts, 330 Max. Peak Plate Ma. per Plate, 54					Max. DC Output Ma. per Plate, 9 Max. Peak Heater-Cathode Volts, 330					3AL5
3AU6	Sharp-Cutoff Pentode	B0	He	3.15	0.6	Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5.0 10.6	500000 1.0§	3900 5200	Cath. Bias Res., 150 ohms Cath. Bias Res., 68 ohms			3AU6
3AV6	Twin Diode High-Mu Triode	B0	He	3.15	0.6	Triode Unit as Class A Amplifier	100 250	− 1.0 − 2.0	—	—	0.5 1.2	80000 62500	1250 1600	100 100	—	—	3AV6
3B2	Half-Wave Rectifier	E1a	H	3.15	0.22	Pulsed Rectifier in TV Service	Max. Peak Plate Ma., 80 Max. Total DC & Peak Inverse Plate Volts, 35000 (Abs.)					Max. DC Inverse Plate Volts, 25000 Max. Average Plate Ma., 1.1					3B2
3BC5	Sharp-Cutoff Pentode	B0	He	3.15	0.6	Class A Amplifier	250	Cath. Bias	150	2.1	7.5	800000	5700	Cath. Bias Res., 180 ohms			3BC5
3BN6	Beam Tube	B1	He	3.15	0.6	Limiter and Discriminator	Max. DC Plate Volts, 300 Max. Peak Heater-Cathode Volts, 90			Max. Grid No. 2 Volts, 100 Max. Positive-Peak Grid No. 1 Volts, 55		Max. Cathode Ma., 11.5					3BN6
3BU8	Sharp-Cutoff Twin Pentode	B1a	He	3.15	0.6	Class A Amplifier With Both Sections Operating	100 100	: :	67.5 67.5	6.5 3.3	— 2.2	Grid-No. 3 Volts, each section, −10 Grid-No. 3 Volts, each section, 0					3BU8
							:Grid current adjusted for 100 microamperes DC.										
3BY6	Pentagrid Amplifier	B0	He	3.15	0.6	Sync Separator and Sync Clipper	10	0	25	3.5	1.4	Grid-No. 3 Volts, 0					3BY6
3BZ6	Semiremote-Cutoff Pentode	B0	He	3.15	0.6	Class A Amplifier	200	Cath. Bias	150	2.6	11	0.6§	6100	Cath. Bias Res., 180 ohms			3BZ6
3CB6	Sharp-Cutoff Pentode	B0	He	3.15	0.6	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms			3CB6
3CF6	Sharp-Cutoff Pentode	B0	He	3.15	0.6	Class A Amplifier	200	− 6.5	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms			3CF6
3CS6	Pentagrid Amplifier	B0	He	3.15	0.6	Sync Separator and Sync Clipper	10	—	30	4.5	2	Grid-No. 3 Volts, 0 Grid-No. 1 Volts, 0		—	—	—	3CS6
						Class A Amplifier	100	− 1	30	5.5	0.8	700000	—	Grid-No. 3 Volts, −1 Transcond., 1500 μmhos			
							100	0	30	1.3	1	1§	1100	Grid-No. 3 Volts, 0 Transcond., 0 μmhos			
3CY5	Sharp-Cutoff Tetrode	B0	He	2.9	0.45	Class A Amplifier	125	− 1	80	1.5	10	100000	8000	—	—	—	3CY5

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
3DK6	Sharp-Cutoff Pentode	B0	He	3.15	0.6	Class A Amplifier	125	Cath. Bias	125	3.8	12	350000	9800	Cath. Bias Res., 56 ohms			3DK6
3DT6	Sharp-Cutoff Pentode	B0	He	3.15	0.6	Class A Amplifier	150	Cath. Bias	100	2.1	1.1	150000	615	Cath. Bias Res., 560 ohms			3DT6
						FM Detector	250	Cath. Bias	100	5.5	0.22	Grid-No. 3 Volts, −6; Cath. Resistor, 560 ohms Plate Load Resistor, 270000 ohms					
3LF4	Beam Power Tube	B5	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	For other characteristics, refer to Type 3Q5-GT.										3LF4

Light Face – Discontinued type.

One vertical rule before or after type No. = GT or other larger glass type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Four vertical rules before or after type No. = Subminiature type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

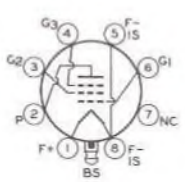
◆ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

Note 1: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.

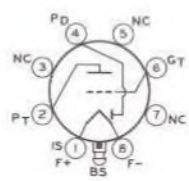
§ Megohms

♠ For two tubes.

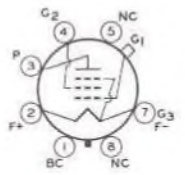
† Power output is for two tubes at stated plate-to-plate load.



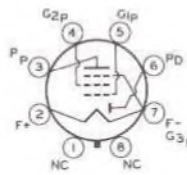
1LG5 1LN5



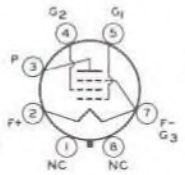
1LH4



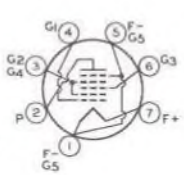
1N5-GT 1P5-GT



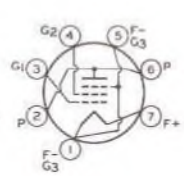
1N6-G



1Q5-GT



1R5



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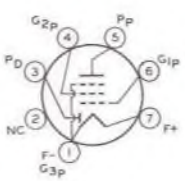

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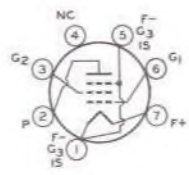
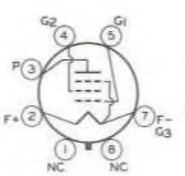
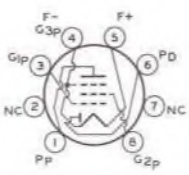


1T4 1U4



1T5-GT



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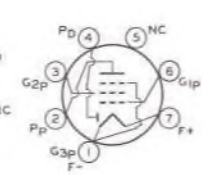
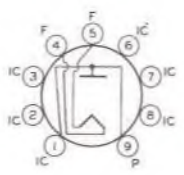


1U5

1-v



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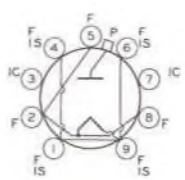
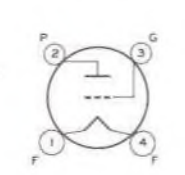


1X2-A 1X2-B



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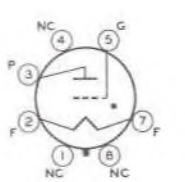
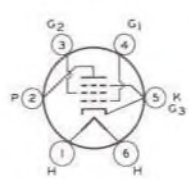
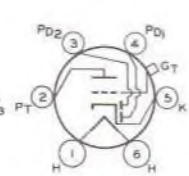


2A4-G



2A5



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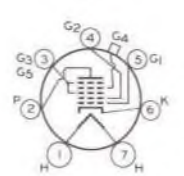
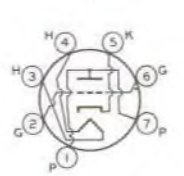
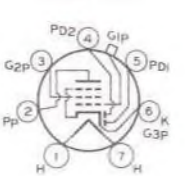


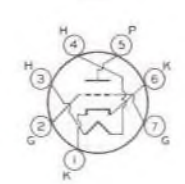
2A7



2AF4-A



2B7



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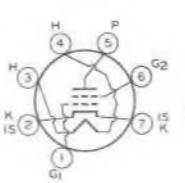

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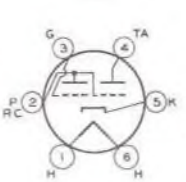
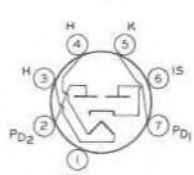
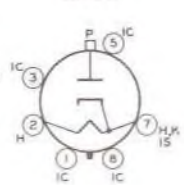


2E5



2EN5

3A2



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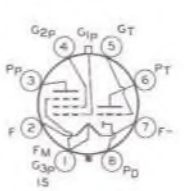

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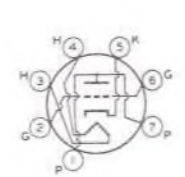

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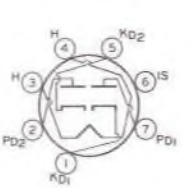

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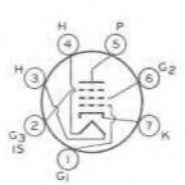

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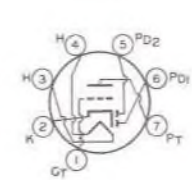

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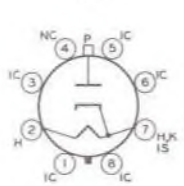
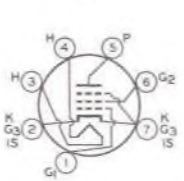


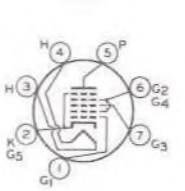
3B2



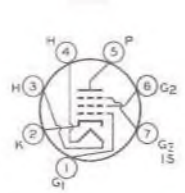
3BC5

3BN6

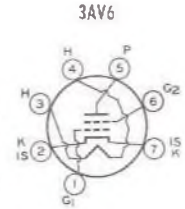
3BU8



3BY6 3CS6



3BZ6 3CB6 3CF6



3CY5

3DK6 3DT6*

3LF4

* IS is connected to pin No. 2 instead of pin No. 7.

Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
3Q4	Power Amplifier Pentode	B0	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	For other characteristics, refer to Type 3V4										3Q4
3Q5-GT	Beam Power Tube	C2c	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	110 110	− 6.6 − 6.6	110 110	1.4 1.1	10.0 8.5	100000 110000	2200 2000	——	8000 8000	0.40 0.33	3Q5-GT
3S4	Power Amplifier Pentode	B0	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	90 90	− 7 − 7	67.5 67.5	1.4 1.1	7.4 6.1	100000 100000	1575 1425	——	8000 8000	0.27 0.235	3S4
3V4	Power Amplifier Pentode	B0	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	90 90	− 4.5 − 4.5	90 90	2.1 1.7	9.5 7.7	100000 120000	2150 2000	——	10000 10000	0.27 0.24	3V4
4AU6	Sharp-Cutoff Pentode	B0	He	4.2	0.45	Class A Amplifier	100 250	Cath. Bias Cath. Bias	100 150	2.1 4.3	5 10.6	500000 1§	3900 5200	Cath. Bias Res., 150 ohms Cath. Bias Res., 68 ohms			4AU6
4BC5	Sharp-Cutoff Pentode	B0	He	4.2	0.45	Class A Amplifier	250	Cath. Bias	150	2.1	7.5	800000	5700	Cath. Bias Res., 180 ohms			4BC5
4BC8	Medium-Mu Twin-Triode	B0a	He	4.2	0.6	Each Unit as Class A Amplifier	150	Cath. Res., 220 ohms			10	——	6200	35	——	——	4BC8
4BN6	Beam Tube	B1	He	4.2	0.45	Limiter and Discriminator	Max. DC Plate Volts, 300 Max. Positive-Peak Grid No. 1 Volts, 55				Max. Cathode Ma., 11.5			Max. Grid-No. 2 Volts, 100 Max. Peak Heater-Cathode Volts, 90			4BN6
4BQ7-A	Medium-Mu Twin-Triode	B0a	He	4.2	0.6	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			9.0	6100	6400	39	Grid-No. 1 Volts for Cutoff, −10		4BQ7-A
4BS8	Medium-Mu Twin Triode	B0a	He	4.5	0.6	Cascode Amplifier	250	− 1	——	——	16	——	10000	——	——	——	4BS8
						Each Unit as Class A Amplifier	150	Cath. Bias	——	——	10	5000	7200	36	Cath. Bias Res., 220 ohms		
4BU8	Sharp-Cutoff Twin Pentode	B1a	He	4.2	0.45	Class A Amplifier (With both sections operating)	100 100	: :	67.5 67.5	6.5 3.3	—— 2.2	Grid-No. 3, volts, each section, −10 Grid-No. 3, volts, each section, 0					4BU8
							: Grid current adjusted for 100 microamperes DC										
4BZ6	Semiremote-Cutoff Pentode	B0	He	4.2	0.45	Class A Amplifier	200	Cath. Bias	150	2.6	11	600000	6100	Cath. Bias Res., 180 ohms			4BZ6
4BZ7	Medium-Mu Twin-Triode	B0a	He	4.2	0.6	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			10	5600	6800	38	Grid-No. 1 Volts for Cutoff, −10		4BZ7
4CB6	Sharp-Cutoff Pentode	B0	He	4.2	0.45	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms			4CB6
4CS6	Pentagrid Amplifier	B0	He	4.2	0.45	Sync Separator and Sync Clipper	10	——	30	4.5	2	Grid-No. 3 Volts, 0 Grid-No. 1 Volts, 0			——	——	4CS6
						Class A Amplifier	100 100	− 1 0	30 30	5.5 1.3	0.8 1	700000 1§	—— 1100	Grid-No. 3 Volts, −1 Transcond., 1500 μmhos Grid-No. 3 Volts, 0 Transcond., 0 μmhos			
4DE6	Sharp-Cutoff Pentode	B0	He	4.2	0.45	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms			4DE6
4DT6	Sharp-Cutoff Pentode	B0	He	4.2	0.45	Class A Amplifier	150	Cath. Bias	100	2.1	1.1	150000	515	Cath. Bias Res., 560 ohms			4DT6
						FM Detector	250	Cath. Bias	100	5.5	0.22	Grid-No. 3 Volts, −6; Cath. Res., 560 ohms Plate Load Resistor, 270000					
4EW6	Sharp-Cutoff Pentode	B0	He	4.2	0.6	Class A Amplifier	125	Cath. Bias	125	3.2	11	200000	14000	Cath. Bias Res., 56 ohms			4EW6
5AM8	Diode—Sharp-Cutoff Pentode	B0a	He	4.7	0.6	Diode Unit	Max. DC Plate Ma., 5				Max. Peak Heater-Cathode Volts, 1200						5AM8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.7	11.5	——	7000	Cath. Bias Res., 120 ohms			
5AN8	Medium-Mu Triode—Sharp-Cutoff Pentode	B0a	He	4.7	0.6	Triode Unit as Class A Amplifier	200	− 6	——	——	13	5750	3300	19	——	——	5AN8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	Cath. Bias Res., 180 ohms			
5AQ5	Beam Power Tube	B1	He	4.7	0.6	Single Tube Class A Amplifier	180 250	− 8.5 −12.5	180 250	3.0 4.5	29.0 45.0	58000 52000	3700 4100	——	5500 5000	2.0 4.5	5AQ5
						Push-Pull Class AB1 Amplifier	250	−13	250	5.0♠	70♠	60000	——	——	10000	10†	
5AS4 5AS4-A	Full-Wave Rectifiers	E3 D6	H	4.7	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 300 Max. Peak Plate Ma., 1000			Min. Total Effect. Supply Imped. per Plate, 97 ohms			5AS4 5AS4-A
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 275 Max. Peak Plate Ma., 1000			Min. Value of Input Choke, 10 henries			
5AS8	Diode—Sharp-Cutoff Pentode	B0a	He	4.7	0.6	Diode Unit	Max. Peak Inverse Plate Volts, 330				Max. Peak Plate Ma., 50			Max. Average Plate Ma., 5.0			5AS8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.0	9.5	300000	6200	Cath. Bias Res., 180 ohms			
5AT8	Triode—Pentode Converter	B0a	He	4.7	0.6	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 Ma.						Plate Current, 13 Ma. Power Output (Approx.), 0.5 Watt			5AT8
						Pentode Unit as Mixer√	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Plate Current, 6.2 Ma.				Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms Conversion Transconductance, 2100 μmhos					
5AV8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	He	4.7	0.6	Triode Unit as Class A Amplifier	200	− 6	——	——	13	5750	3300	19	——	——	5AV8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	——	Cath. Bias Res., 180 ohms		
5AZ4	Full-Wave Rectifier	C2	F	5.0	2.0	For ratings and characteristics, refer to Type 5Y3-GT.											5AZ4
5B8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	He	4.7	0.6	Triode Unit as Class A Amplifier	200	− 6	——	——	13	5750	3300	19	——	——	5B8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	Cath. Bias Res., 180 ohms			
5BE8	Medium-Mu Triode—Sharp-Cutoff Pentode	B0a	He	4.7	0.6	Triode Unit as Class A Amplifier	150	Cath. Bias Res., 56 ohms			18	5000	8500	40	——	——	5BE8
						Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	5200	Cath. Bias Res., 68 ohms			
5BK7-A	Medium-Mu Twin Triode	B0a	He	4.7	0.6	Each Unit as Class A Amplifier	150	Cath. Bias Res., 56 ohms			18	4600	9300	43	Grid-No. 1 Volts for Cutoff, −10		5BK7-A
5BQ7-A	Medium-Mu Twin Triode	B0a	He	4.7	0.45	Each Unit as Class A Amplifier	150	Cath. Bias Res., 220 ohms			9	6100	6400	39	Grid-No. 1 Volts for Cutoff, −10		5BQ7-A
5BR8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	He	4.7	0.6	Triode Unit as Class A Amplifier	150	Cath. Bias	——	——	18	5000	8500	40	Cath. Bias Res., 56 ohms		5BR8
						Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	5200	——	Cath. Bias Res., 68 ohms		
5BT8	Twin-Diode-Sharp-Cutoff Pentode	B0a	He	4.7	0.6	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	Cath. Bias Res., 180 ohms			5BT8
5CG8	Triode Pentode Converter	B0a	He	4.7	0.6	Triode Unit as 250-Mc Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 Ma.						Plate Current, 13 Ma. Power Output (Approx.) 0.5 watt			5CG8
						Pentode Unit As Mixer√	150	Conversion Transconductance, 2100 μmhos Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5				Plate Current, 6.2 Ma. Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms					
						Triode Unit as Class A Amplifier	100	Cath. Bias	——	——	8.5	6900	5800	40	Cath. Bias Res., 100 ohms		
						Pentode Unit as Class A Amplifier	250	Cath. Bias	150	1.6	7.7	750000	4600	——	Cath. Bias Res., 200 ohms		
5CL8 5CL8-A	Medium-Mu Triode Sharp-Cutoff Tetrode	B0a	He	4.7	0.6	Triode Unit as Class A Amplifier	125	Cath. Bias	——	——	15	5000	8000	40	Cath. Bias Res., 56 ohms		5CL8 5CL8-A
						Tetrode Unit as Class A Amplifier	125	− 1	125	4	12	100000	Transcond. 5800 μmhos for 5CL8 Transcond. 6400 μmhos for 5CL8-A				

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
5CM8	High-Mu Triode—Sharp-Cutoff Pentode	B8a	He●	4.7	0.6	Triode Unit as Class A Amplifier	250	−2	——	——	1.8	50000	2000	100	——	——	5CM8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms			
5CQ8	Medium-Mu Triode Sharp-Cutoff Tetrode	B8a	He●	4.7	0.6	Triode Unit as Class A Amplifier	125	Cath. Bias	——	——	15	5000	8000	40	Cath. Bias Res., 56 ohms		5CQ8
						Tetrode Unit as Class A Amplifier	125	−1	125	4.2	12	140000	5800	——	——	——	
5CZ5	Beam Power Tube	B1a	He●	4.7	0.6	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 140					Max. Peak Positive Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts					5CZ5
						Class A Amplifier	250	−14	250	4.6	46	73000	4800	——	5000	5.4	
						Push-Pull Class AB1 Amplifier	350	−23.5	280	3	46	——	——	——	7500	21.5	

One vertical rule before or after type No. = GT or other larger glass type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ⅓ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

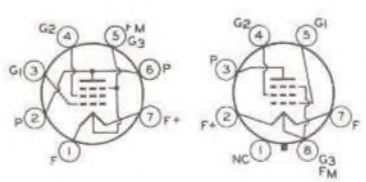
Note 1: Subscript 1 on class of amplifier service (as AB1) indicates that grid current does not flow during any part of input cycle.

§ Megohms.

♠ For two tubes.

† Power output is for two tubes at stated plate-to-plate load.

√ With separate excitation and triode unit grounded.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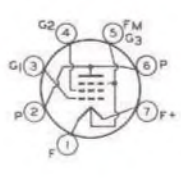
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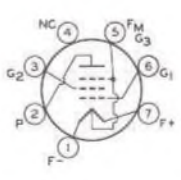
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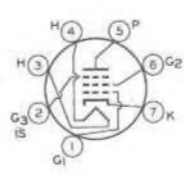
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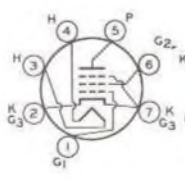
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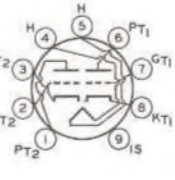
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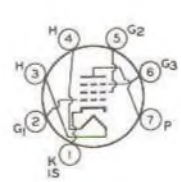
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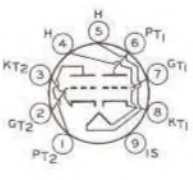
4BQ7-A 4BS8


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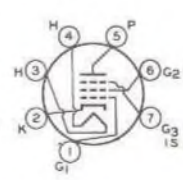
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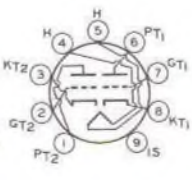
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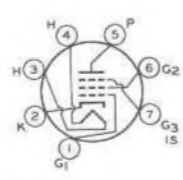
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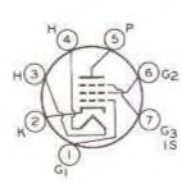
4CS6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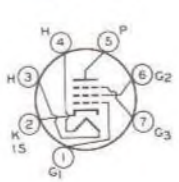
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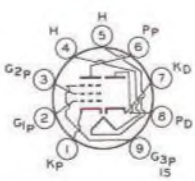
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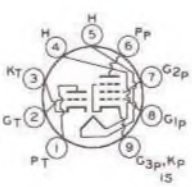
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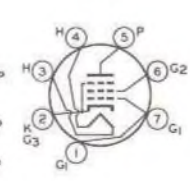
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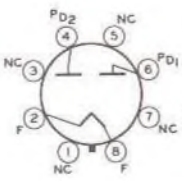
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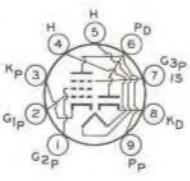
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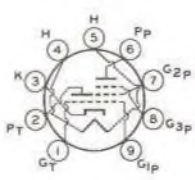
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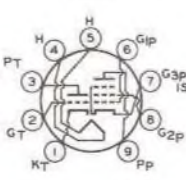
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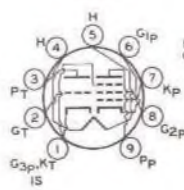
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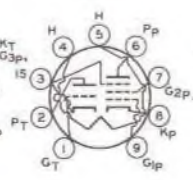
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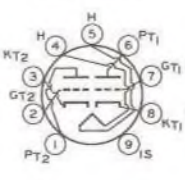
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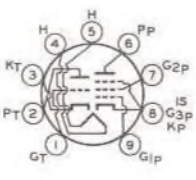
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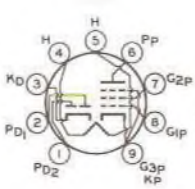
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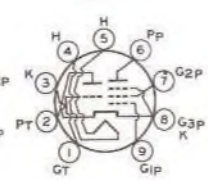
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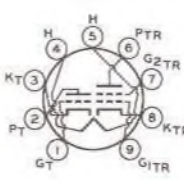
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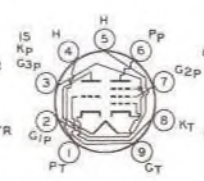
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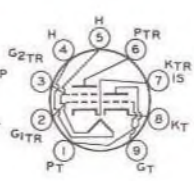
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5CZ5

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
5J6	Medium-Mu Twin-Triode	B0	H●	4.7	0.6	Each Unit as Class A Amplifier	100	Cath. Res., 220 ohms, both units		—	8.5	7100	5300	38	—	—	5J6
						Push-Pull Class C Amplifier	150	−10	Cath. Res., 220 ohms, both units		30	Grid Current, 16 Ma. Driving Power, 0.35 Watt			—	3.5	
5T4	Full-Wave Rectifier	O7	F	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 675				Min. Total Effect. Supply Imped. per Plate, 150 ohms		5T4
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 675				Min. Value of Input Choke, 3 henries		
5T8	Triple Diode High-Mu Triode	B0a	H●	4.7	0.6	Triode Unit as Class A Amplifier	100 250	− 1 − 3	—	—	0.8 1	54000 58000	1300 1200	70 70	—	—	5T8
5U4-G	Full-Wave Rectifier	E2	F	5.0	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 675				Min. Total Effect. Supply Imped. per Plate, 170 ohms		5U4-G
5U4-GB	Full-Wave Rectifier	O12c	H	5.0	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 275 Max. Peak Plate Ma., 1000				Min. Total Effect. Supply Imped. per Plate, 97 ohms		5U4-GB
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 275 Max. Peak Plate Ma. per Plate 1000				Min. Value of Input Choke, 10 henries		
5U8	Triode—Pentode Converter	B0a	H●	4.7	0.6	Triode Unit as Class A Amplifier	150	Cath. Bias	—	—	18	5000	8500	40	Cath. Res., 56 ohms		5U8
						Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	40000	5200	—	Cath. Res., 68 ohms		
5V3	Full-Wave Rectifier	O12b	F	5.0	3.8	With Capacitive Input Filter	Max. AC Volts per Plate (RMS), 425 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 350 Max. Peak Plate Ma. per Plate, 1200						5V3
							Min. Total Effect. Supply Imped. per Plate, 75 ohms										
						With Inductive Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 350 Max. Peak Plate Ma. per Plate, 1200						
							Min. Value of Input Choke, 10 henries										
5V4-G	Full-Wave Rectifier	O11c	H	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 375 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 175 Max. Peak Plate Ma., 525				Min. Total Effect. Supply Imped. per Plate, 100 ohms		5V4-G
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 175 Max. Peak Plate Ma., 525				Min. Value of Input Choke, 4 henries		
5V4-GA	Full-Wave Rectifier	C11a	H	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 375 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 175 Max. Peak Plate Ma., 525				Min. Total Effect. Supply Imped. per Plate, 100 ohms		5V4-GA
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 175 Max. Peak Plate Ma., 525				Min. Value of Input Choke, 4 henries		
5V6-GT	Beam Power Tube	C2c	H●	4.7	0.6	Single-Tube Class A Amplifier	250 315	− 12.5 − 13	250 225	4.5 2.2	45 34	50000 80000	4100 3750	—	5000 8500	4.5 5.5	5V6-GT
						Push-Pull Class AB1 Amplifier	250 285	− 15 − 19	250 285	5♠ 4♠	70♠ 70♠	60000 70000	3750 3600	—	10000 8000	10♠ 14♠	
5W4 5W4-GT	Full-Wave Rectifiers	C2a C4	F	5.0	1.5	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 100 Max. Peak Plate Ma., 300				Min. Total Effect. Supply Imped. per Plate, 50 ohms		5W4 5W4-GT
5X4-G	Full-Wave Rectifier	E2	F	5.0	3.0	For other ratings, refer to Type 5U4-G.											5X4-G
5X8	Triode—Pentode Converter	B0a	H●	4.7	0.6	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 Ma.					Plate Current, 13 Ma. Power Output (Approx.), 0.5 Watt				5X8
						Pentode Unit as Mixer√	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Plate Current, 6.2 Ma.					Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms Conversion Transconductance, 2100 μmhos				
5Y3-G 5Y3-GT	Full-Wave Rectifiers	D11c C4	F	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 440				Min. Total Effect. Supply Imped. per Plate, 50 ohms		5Y3-G 5Y3-GT
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 440				Min. Value of Input Choke, 10 henries		
5Y4-G 5Y4-GT	Full-Wave Rectifiers	D11c	F	5.0	2.0	For other ratings, refer to Type 5Y3-GT.											5Y4-G 5Y4-GT
5Z3	Full-Wave Rectifier	E2a	F	5.0	3.0	For other ratings, refer to Type 5U4-G.											5Z3
5Z4	Full-Wave Rectifier	C2a	H	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375				Min. Total Effect. Supply Imped. per Plate, 50 ohms		5Z4
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375				Min. Value of Input Choke, 5 henries		
6A3	Power Amplifier Triode	E3a	F	6.3	1.0	Amplifier	For other characteristics, refer to Type 6B4-G.										6A3
6A4/LA	Power Amplifier Pentode	D12a	F	6.3	0.3	Class A Amplifier	100 180	− 6.5 −12.0	100 180	1.6 3.9	9.0 22.0	83250 45500	1200 2200	—	11000 8000	0.31 1.40	6A4/LA
6A6	Twin-Triode Amplifier	D12a	H	6.3	0.8	Amplifier	For other characteristics, refer to Type 6N7-GT.										6A6
6A7 6A7S	Pentagrid Converters ◘	O9	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.										6A7 6A7S
6A8 6A8-G 6A8-GT	Pentagrid Converters ■	C1 O8 C3	H	6.3	0.3	Converter	100 250	− 1.5 − 3.0	50 100	1.3 2.7	1.1 3.5	600000 360000	Anode-Grid (#2): 250■ max. V 4.0 ma. Oscillator-Grid (#1) Res. ■ Conversion Transcond., 550 μmhos				6A8 6A8-G 6A8-GT
6AB4	High-Mu Triode	B0	H	6.3	0.15	Class A Amplifier	100 250	Cath. Res., 270 ohms Cath. Res., 200 ohms			3.7 10.0	15000 10900	4000 5500	60 60	—	—	6AB4
6AB5/ 6N5	Electron-Ray Tube Indicator Type	D4	H	6.3	0.15	Visual Indicator	Plate & Target Supply = 135 volts. Triode Plate Resistor = 0.25 meg. Target Current = 2.0 ma. Grid Bias, −10.0 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.5 ma.										6AB5/ 6N5
							Plate & Target Supply = 135 volts. Triode Plate Resistor = 1.0 meg. Target Current = 1.9 ma. Grid Bias, −15.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle 90°; Plate Current, 0.13 ma.										
6AB7	Remote-Cutoff Pentode	B3	H	6.3	0.45	Class A Amplifier	300	− 3.0	200	3.2	12.5	700000	5000	—	—	—	6AB7
6AC5-GT	High-Mu Power Amplifier Triode	C2c	H	6.3	0.4	Class B Amplifier	250	0	—	—	5.0♠	—	—	—	10000	8.0♠	6AC5-GT
						Dynamic-Coupled Amplifier With 76 Driver	250	Bias for both 6AC5-GT and 76 is developed in coupling circuit. Average Plate Current of Driver = 5.5 milliamperes Average Plate Current of 6AC5-GT = 32 milliamperes.							7000	3.7	
6AC7	Sharp-Cutoff Pentode	B3	H	6.3	0.45	Class A Amplifier	300	Cath. Bias	150	2.5	10.0	1.0§	9000	—	Cathode-Bias Resistor, 160 ohms		6AC7
6AD6-G	Electron-Ray Tube	B5c	H	6.3	0.15	Visual Indicator	Target Voltage, 150 volts. Control-Electrode Voltage, −50 volts; Shadow Angle, 135°; Target Current, 1.2 ma. Control-Electrode Voltage, 75 volts; Angle, 0°; Target Current, 3 ma										6AD6-G
6AD7-G	Triode—Power Pentode	D11c	H	6.3	0.85	Triode Unit as Class A Amplifier	250	−25.0	—	—	3.7	19000	325	6	—	—	6AD7-G
						Pentode Unit as Class A Amplifier	250	−16.5	250	6.5	34.0	80000	2500	—	7000	3.2	
6AE5-GT	Amplifier Triode	C4	H	6.3	0.3	Class A Amplifier	95	−15.0	—	—	7.0	3500	1200	4.2	—	—	6AE5-GT
6AE6-G	Twin-Plate Control Tube	D3	H	6.3	0.15	Remote Cutoff Triode	250 250	− 1.5 −35.0	—	—	6.5 0.01	25000	1000	25	—	—	6AE6-G
						Sharp-Cutoff Triode	250 250	− 1.5 − 9.5	—	—	4.5 0.01	35000	950	33	—	—	

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
6AE7-GT	Twin-Input Triode Amplifier	C2c	H	6.3	0.5	Class A Amp.▲▲	250	−13.5	—	—	10.0	4650	3000	14	—	—	6AE7-GT
						Driver For Push-Pull 6AC5-GT In Dynamic-Coupled Amplifier	250	Bias for both 6AC5-GT and 6AE7-GT developed in coupling circuit. Zero-Signal Plate Current of 6AE7-GT = 10 milliamperes. Zero-Signal Plate Current of 6AC5-GT = 64 milliamperes. Power Output is for two 6AC5-GT at stated plate-to-plate load.						10000	9.5	
6AF3	Half-Wave Rectifier	C2b	H	6.3	1.2	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 Max. Peak Plate Ma., 750								Max. Average Plate Ma., 185 Max. Plate Dissipation, 6 watts		6AF3
6AF4 6AF4-A	Medium-Mu Triodes	A1 B0	H	6.3	0.225	Class A Amplifier	80 100	Cathode Bias Res., 150 ohms			16 20	2270 2130	6600 7500	15 16	— —	— —	6AF4 6AF4-A
						Oscillator at 950 Mc.	100	Grid Bias Volts, −4 Grid Res., 10000 ohms			22	Grid Current (Approx.), 400 μa. Useful Power Output, 150 milliwatts					
6AF6-G	Electron-Ray Tube Twin Indicator Type	B0c	H	6.3	0.15	Visual Indicator	Target Voltage, 125 volts. Control-Electrode Voltage, 0 volts; Shadow Angle, 95°; Target Current, 0.65 ma. Control-Electrode Voltage, 80 volts; Angle, 0°.										6AF6-G
							Target Voltage, 250 volts. Control-Electrode Voltage, 0 volts; Shadow Angle, 95°; Target Current, 2.2 ma. Control-Electrode Voltage, 160 volts; Angle, 0°.										

Light Face = Discontinued type.

One vertical rule before or after type No. = GT or other larger glass type.

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

▫ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

◣ Supply voltage applied through 20000-ohm voltage-dropping resistor.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

Note 1: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.

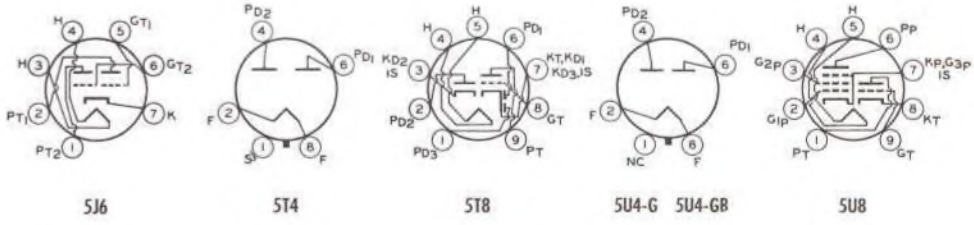
♠ For two tubes.

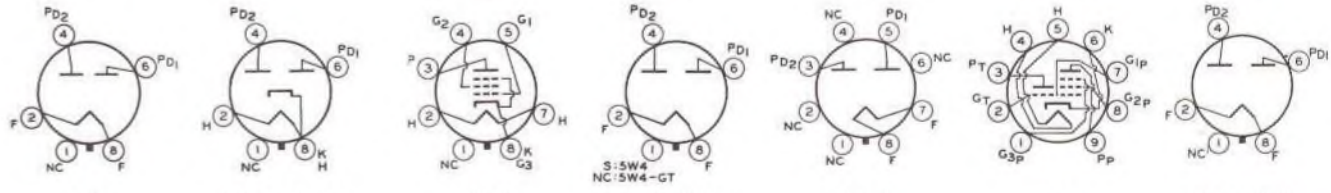
! Power output is for two tubes at stated plate-to-plate load.

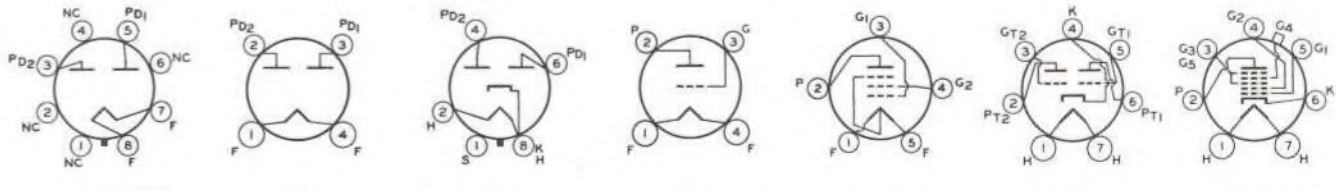
▲▲ Both grids connected together; likewise both cathodes.

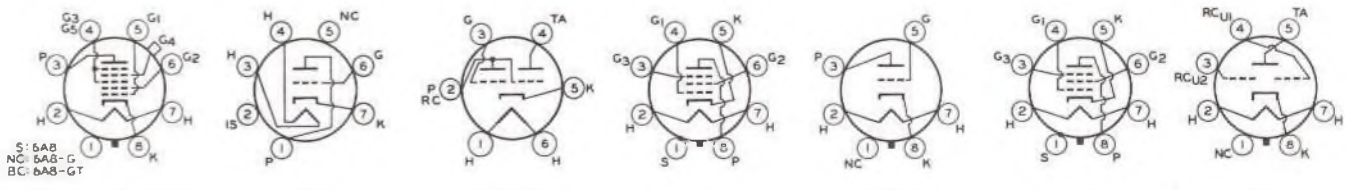
√ With separate excitation and triode unit grounded.

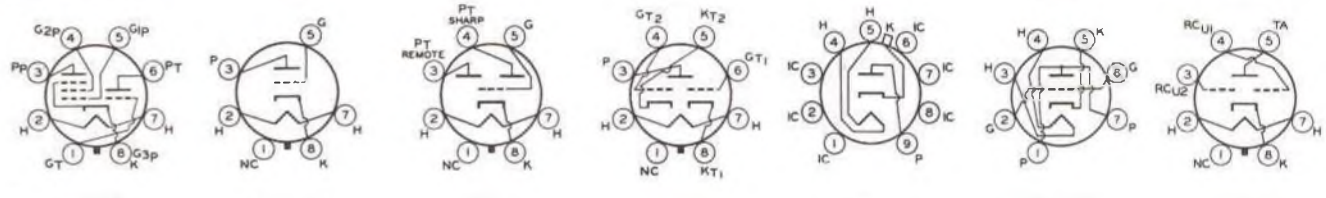
⌀ 50000 ohms.











• *Pin Nos. 4 and 6 are omitted.*

Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amps.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
6AG5	Sharp-Cutoff Pentode	G0	H	6.3	0.3	As Pentode Class A Amplifier	100 250	Cath. Bias	100 150	1.4 2.0	4.5 6.5	600000 800000	4500 5000	Cath. Bias Res., 180 ohms Cath. Bias Res., 180 ohms			**6AG5**
						As Triode□ Class A Amplifier	180 250	Cath. Bias	— —	— —	7.0 5.5	8000 10000	5700 3800	Cath. Bias Res., 330 ohms Cath. Bias Res., 820 ohms			
6AG7	Power Pentode	C2a	H	6.3	0.65	Class A Amplifier 4-Mc. Bandwidth Video Circuit	300	Cath. Bias — 2.0	125	7.0	28.0	Cathode-Bias Resistor, 57 ohms. Load Resistance, 3500 ohms. Peak-to-Peak Volts Output, 140 approx.					**6AG7**
6AH4-GT	Medium-Mu Triode	C2c	H	6.3	0.75	Vertical Deflection Amplifier	Max. DC Plate Volts, 500 Max. DC Cathode Ma., 60					Max. Peak Positive-Pulse Plate Volts, 2000 Max. Plate Dissipation, 7.5 watts					**6AH4-GT**
6AH6	Sharp-Cutoff Pentode	B0	H	6.3	0.45	Class A Amplifier	300	Cath. Bias	150	2.5	10.0	500000	9000	Cath. Res., 160 ohms			**6AH6**
6AK5	Sharp-Cutoff Pentode	A1	H	6.3	0.175	Class A Amplifier	120 180	Cath. Bias	120 120	2.5 2.4	7.5 7.7	300000 500000	5000 5100	Cath. Res., 180 ohms			**6AK5**
6AL5	Twin Diode	A1	H	6.3	0.3	Detector Rectifier	Max. Peak Inverse Volts, 330 Max. Peak Plate Ma. per Plate, 54					Max. DC Output Ma. per Plate, 9 Max. Peak Heater-Cathode Volts, 330					**6AL5**
6AL7-GT	Electron-Ray Tube Indicator Type	C0h	H	6.3	0.15	Visual Indicator	Target Voltage, 315 volts Grid Voltage = 0 volts Cathode Bias Res., 3300 ohms approx.					Grid Voltage for Pattern Cutoff, −7 volts approx. Deflecting-Electrodes—No. 1, No. 2 and No. 3 Voltage = 0■					**6AL7-GT**
6AM4	High-Mu Triode	A1a	H	6.3	0.225	Class A Amplifier	150	Cath. Bias Res., 100 ohms			7.5	9500	9000	85	—	—	**6AM4**
6AM8 **6AM8-A**	Diode—Sharp-Cutoff Pentodes	B0a	H H●	6.3	0.45	Diode Unit	Max. DC Plate Ma., 5 Max. Peak Heater-Cathode Volts, ±200										6AM8 **6AM8-A**
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.7	11.5	—	7000	Cath. Bias Res., 120 ohms			
6AN4	High-Mu Triode	A1	H	6.3	0.225	Class A Amplifier	200	Cath. Bias Res., 100 ohms			13	—	10000	70	—	—	**6AN4**
						Mixer Service	125	Cath. Bias Res., 270 ohms			7	Conversion Transcond., 2900 micromhos Oscillator Injection Volts (RMS), 1.4					
6AN8	Triode—Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	200	— 6	—	—	13.0	5750	3300	19	—	—	**6AN8**
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	—	Cath. Res., 180 ohms		
6AQ5 **6AQ5-A**	Beam Power Tubes	B1	H H●	6.3	0.45	Single Tube Class A Amplifier	180 250	— 8.5 — 12.5	180 250	3.0 4.5	29.0 45.0	58000 52000	3700 4100	— —	5500 5000	2.0 4.5	6AQ5 **6AQ5-A**
						Push-Pull Class AB$_1$ Amplifier	230	— 15.0	250	5.0♠	70.0♠	60000	—	—	10000	10.0†	
6AQ6	Twin-Diode High-Mu Triode	B0	H	6.3	0.15	Triode Unit as Class A Amplifier	100 250	— 1.0 — 3.0	— —	— —	0.8 1.0	61000 58000	1150 1200	70 70	—	—	**6AQ6**
6AQ7-GT	Twin-Diode High-Mu Triode	C2c	H	6.3	0.3	Triode Unit as Class A Amplifier	250	— 2	—	—	2.3	44000	1600	70	—	—	**6AQ7-GT**
6AR5	Power Pentode	B1	H	6.3	0.4	Class A Amplifier	250 250	— 16.5 — 18	250 250	5.7 5.5	34.0 32.0	65000 68000	2400 2300	— —	7000 7500	3.2 3.4	**6AR5**
6AS5	Beam Power Tube	B1	H	6.3	0.8	Class A Amplifier	150	— 8.5	110	2.0	35	—	5600	—	4500	2.2	**6AS5**
6AS8	Diode—Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Diode Unit	Max. Peak Inverse Plate Volts, 330 Max. Peak Plate Ma., 50 Max. Average Plate Ma., 5.0										**6AS8**
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.0	9.5	300000	6200	Cath. Res., 180 ohms			
6AT6	Twin-Diode High-Mu Triode	B0	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	— 1.0 — 3.0	— —	— —	0.8 1.0	54000 58000	1300 1200	70 70	— —	— —	**6AT6**
6AT8 **6AT8-A**	Triode—Pentode Converters	B0a	H H●	6.3	0.45	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 Ma.				Plate Current, 13 ma Power Output (Approx.), 0.5 watt					**6AT8** **6AT8-A**
						Pentode Unit as Mixer√	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Plate Current, 6.2 Ma.				Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms Conversion Transconductance, 2100 μmhos					
6AU4-GT	Half-Wave Rectifier	C10b	H	6.3	1.8	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Absolute) Max. Peak Plate Ma., 1050					Max. Average Plate Ma., 175 Max. Plate Dissipation 6.0 watts					6AU4-GT
6AU4-GTA	Half-Wave Rectifier	C10b	H	6.3	1.8	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Absolute) Max. Peak Plate Ma., 1150					Max. Average Plate Ma., 190 Max. Plate Dissipation, 6.0 Watts					**6AU4-GTA**
6AU5-GT	Beam Power Tube	C2c	H	6.3	1.25	Horizontal Deflection Amplifier	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110					Max. Peak Positive-Pulse Plate Volts, 5500 Absolute Max. Plate Dissipation, 10 watts					**6AU5-GT**
6AU6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5.0 10.6	500000 1.0§	3900 5200	Cath. Bias Res., 150 ohms Cath. Bias Res., 68 ohms			**6AU6**
6AU7	Medium-Mu Twin-Triode	B0a	H	3.15 6.3	0.6 0.3	Each Unit as Class A Amplifier	100 250	0 — 8.5	— —	— —	13 10.5	6300 7950	3500 2200	22 17.5	— —	— —	6AU7
6AU8	Medium-Mu Triode—Sharp-Cutoff Pentode	B1a	H●	6.3	0.6	Triode Unit as Class A Amplifier	150	Cath. Res., 150 ohms			9.5	7200	5600	40	—	—	**6AU8**
						Pentode Unit as Class A Amplifier	200	Cath. Bias	125	3.6	17	140000	8000	Cath. Bias Res., 82 ohms			
6AV5-GA 6AV5-GT	Beam Power Tubes	D1a C2c	H	6.3	1.2	Horizontal Deflection Amplifier	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110					Max. Peak Positive-Pulse Plate Volts, 5500 (Abs.) Max. Plate Dissipation, 11 watts					**6AV5-GA** 6AV5-GT
6AV6	Twin-Diode High-Mu Triode	B0	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	— 1.0 — 2.0	— —	— —	0.5 1.2	80000 62500	1250 1600	100 100	— —	— —	**6AV6**
6AW8 **6AW8-A**	High-Mu Triode—Sharp-Cutoff Pentode	B1a	H●	6.3	0.6	Triode Unit as Class A Amplifier	200	— 2	—	—	4	17500	4000	70	—	—	**6AW8** **6AW8-A**
						Pentode Unit as Class A Amplifier••	200	Cath. Bias	150	3.5	13	400000	9000	Cath. Bias Res., 180 ohms			
							•• 6AW8-A Features a plate current characteristic with a controlled knee.										
6AX4-GT	Half-Wave Rectifier	C2c	H	6.3	1.2	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 Max. Peak Plate Ma., 750 Max. DC Plate Ma., 125					Max. Peak Heater-Cathode Volts: { −4400•• +300 ••DC component must not exceed 900 volts.					**6AX4-GT**
6AX5-GT	Full-Wave Rectifier	C2c	H	6.3	1.2	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250					Max. DC Output Ma., 80 Max. Peak Plate Ma., 375			Min. Total Effec. Supply Imped. per Plate, 105		**6AX5-GT**
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250					Max. DC Output Ma., 125 Max. Peak Plate Ma., 375			Min. Value of Input Choke, 10 henries		
6AX8	Medium-Mu Triode—Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	150	Cath. Bias Res., 56 ohms			18	5000	8500	40	—	—	**6AX8**
						Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	4800	Cath. Bias Res., 120 ohms			
6AZ8	Medium-Mu Triode—Semiremote-Cutoff Pentode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	200	— 6	—	—	13	5750	3300	19	—	—	**6AZ8**
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3	9.5	300000	6000	Cath. Res., 180 ohms			
6B4-G	Power Amplifier Triode	E2	F	6.3	1.0	Class A Amplifier	250	−45.0	—	—	60.0	800	5250	4.2	2500	3.20	**6B4-G**
						Push-Pull Class AB$_1$ Amplifier	325 325	Cath. Bias, 850 ohms ♠ −68 volts, fixed bias			80.0♠ 80.0♠	—	—	—	5000 3000	10.0† 15.0†	
6B5	Direct-Coupled Power Amplifier	D12a	H	6.3	0.8	Class A Amplifier	For other characteristics, refer to Type 6N6-G.										6B5
6B6-G	Twin-Diode High-Mu Triode	D8	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.										6B6-G
6B7 6B7S	Twin-Diode Remote-Cutoff Pentode	D8	H	6.3	0.3	Pentode Unit as Amplifier	Input Triode: Plate Volts, 300 max; Grid Volts, 0; Plate Ma., 8; AF Signal Volts (Peak), 21 Output Triode: Plate Volts, 300 max.; Plate Ma., 45; Plate Res., 24000 ohms; Load Resistance, 7000 ohms; Power Output, 4 watts.											6B7 6B7S
6B8	Twin-Diode Pentode	C1	H	6.3	0.3	Pentode Unit as Amplifier	For other characteristics, refer to Type 12C8.										**6B8**

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
6B8-G	Twin Diode—Remote-Cutoff Pentode	D8	H	6.3	0.3	Pentode Unit as RF Amplifier	100	− 3.0	100	1.7	5.8	300000	950				6B8-G
							250	− 3.0	125	2.3	9.0	600000	1125				
						Pentode Unit as AF Amplifier	90 ✖ Cath. Bias, 3500 ohms. Screen Resistor = 1.1 meg. Grid Resistor,** 0.5 megohm. Gain per stage = 55										
							300 ✖ Cath. Bias, 1600 ohms. Screen Resistor = 1.2 meg.										
6BA6	Remote-Cutoff Pentode	8D	H	6.3	0.3	Class A Amplifier	100	Cath.	100	4.4	10.8	250000	4300	Cath. Bias Res., 68 ohms			6BA6
							250	Bias	100	4.2	11.0	1.0§	4400	Cath. Bias Res., 68 ohms			
6BA7	Pentagrid Converter ▲	81a	H	6.3	0.3	Converter	100	− 1.0	100	10.2	3.6	500000	Grid-No. 1 Resistor, 20000 ohms				6BA7
							250	− 1.0	100	10.0	3.8	1.0§	Conversion Transcond., 950 micromhos				

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

□ Grid # 2 tied to plate.

✖ Applied through plate resistor of 250000 ohms.

Note 1: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.

§ Megohms.

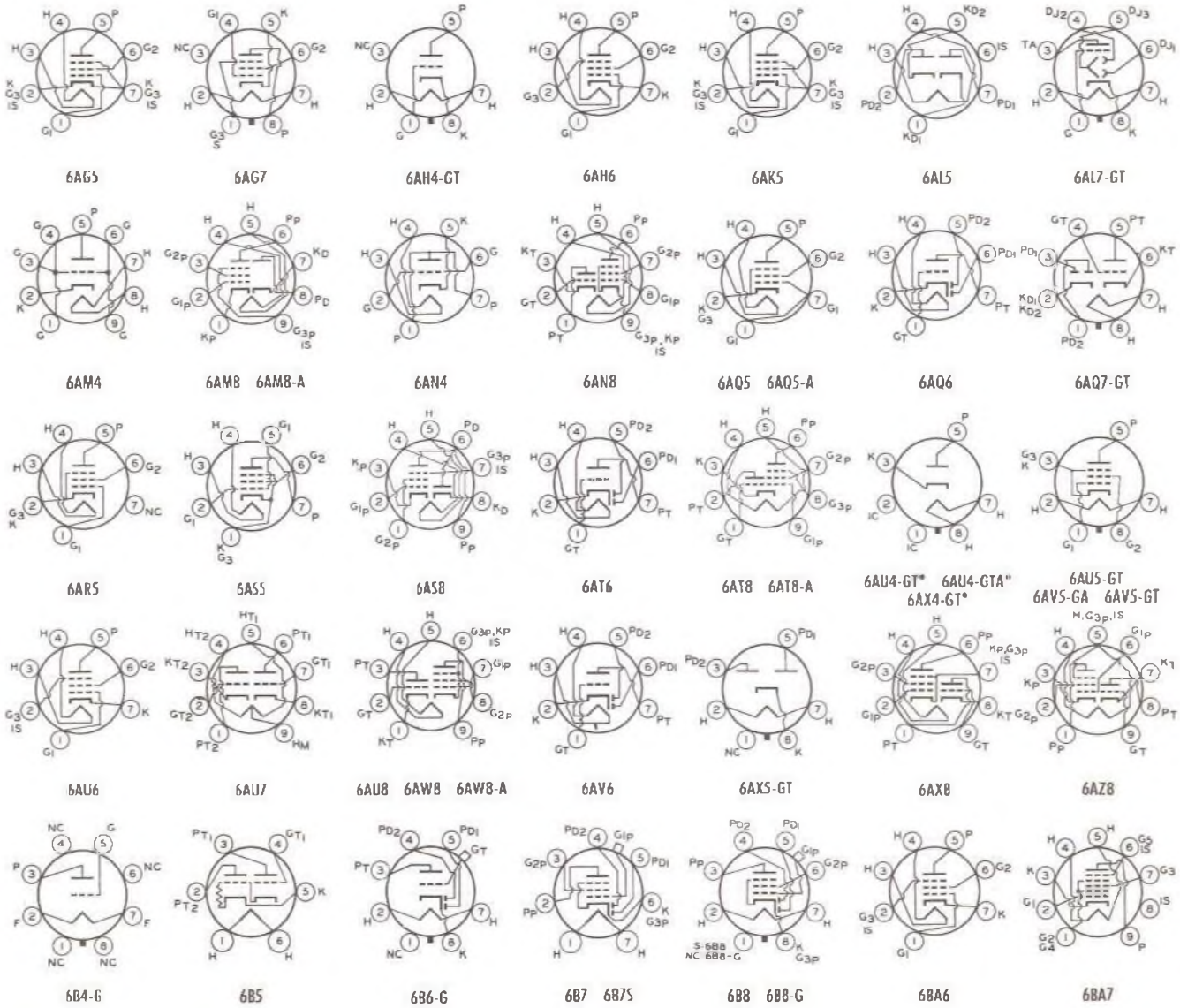
♠ For two tubes.

† Power output is for two tubes at stated plate-to-plate load.

** For grid of following tube.

*/ With separate excitation and triode unit grounded.

▣ With tube mounted horizontally and pins No. 4 and No. 8 in a vertical plane (pin No. 4 on top), deflecting electrode No. 1 controls left-hand section of pattern, deflecting electrode No. 2 controls top right-hand section of pattern, deflecting electrode No. 3 controls bottom section of pattern.



* Socket terminals 1, 2, 4, and 6 should not be used as tie points.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
6BA8-A	Medium-Mu Triode Sharp-Cutoff Pentode	B1a	H●	6.3	0.6	Triode Unit as Class A Amplifier	200	− 8	—	—	8	6700	2700	18	——	——	**6BA8-A**
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.5	13	400000	9000	——	Cath. Bias Res., 180 ohms		
6BC4	Medium-Mu Triode	A1a	H	6.3	0.225	Class A Amplifier	150	Cath. Bias	——	——	14.5	4800	10000	48	Cath. Res., 100 ohms		**6BC4**
6BC5	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	250	Cath. Bias	150	2.1	7.5	800000	5700	Cath. Bias Res., 180 ohms			**SBC5**
6BC7	Triple Diode	B0a	H	6.3	0.45	DC Restorer in Color TV	Each Diode: Max. Peak Inverse Plate Volts, 300; Max. Peak Plate Ma., 54							Max. Average Plate Ma., 12			**6BC7**
6BC8	Medium-Mu Twin-Triode	B0a	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cath. Res., 220 ohms			10	——	6200	35	——	——	**6BC8**
6BD4	Sharp-Cutoff Beam Triode	E0	H	6.3	0.6	Voltage-Control	Max. DC Plate Volts, 20000; Max. Unregulated DC Supply Volts, 40000							Max. DC Plate Ma., 1.5; Max. Plate Dissipation, 20.0 watts			6BD4
6BD4-A	Sharp-Cutoff Beam Triode	E0	H	6.3	0.6	Voltage-Control	Max. DC Plate Volts, 27000; Max. Unregulated DC Supply Volts, 55000							Max. DC Plate Ma., 1.5; Max. Plate Dissipation, 25.0 watts			6BD4-A
6BD6	Remote-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	100	− 1	100	5.0	13.0	150000	2550	——	——	——	**6BD6**
							250	− 3	100	3.0	9.0	800000	2000	——	——	——	
6BE6	Pentagrid Converter▲	B0	H	6.3	0.3	Converter	100	− 1.5	100	7.0	2.6	400000	Grid # 1 Resistor, 20000 ohms				**6BE6**
							250	− 1.5	100	6.8	2.9	1.0§	Conversion Transcond., 475 micromhos				
6BF5	Beam Power Tube	B1	H	6.3	1.2	Class A Amplifier	110	− 7.5	110	4.0	36.0	12000	7500	——	2500	1.9	**6BF5**
						Vertical Deflection Amplifier□	Max. DC Plate Volts, 250; Max. DC Cathode Ma., 40					Absolute Max. Peak Positive-Pulse Plate Volts, 900; Max. Plate Dissipation, 5 watts					
6BF6	Twin-Diode Medium-Mu Triode	B0	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 9.0	——	——	9.5	8500	1900	16	Power Output, 300 milliwatts		**6BF6**
6BG6-G 6BG6-GA	Beam Power Tubes	F1 E	H	6.3	0.9	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700; Max. DC Cathode Ma., 110					Max. Peak Positive-Pulse Plate Volts, 6600 (Abs.); Max. Plate Dissipation, 20 watts					**6BG6-G 6BG6-GA**
6BH6	Sharp-Cutoff Pentode	B0	H	6.3	0.15	Class A Amplifier	100	− 1.0	100	1.4	3.6	700000	3400	——	——	——	**6BH6**
							250	− 1.0	150	2.9	7.4	1.4§	4600	——	——	——	
6BH8	Medium-Mu Triode— Sharp-Cutoff Pentode	B1a	H●	6.3	0.6	Triode Unit as Class A Amplifier	150	− 5	——	——	9.5	5150	3300	17	——	——	**6BH8**
						Pentode Unit as Class A Amplifier	200	Cath. Bias	125	3.4	15	150000	7000	Cath. Bias Res., 82 ohms			
6BJ6	Remote-Cutoff Pentode	B0	H	6.3	0.15	Class A Amplifier	100	− 1.0	100	3.5	9.0	250000	3650	——	——	——	**6BJ6**
							250	− 1.0	100	3.3	9.2	1.3§	3600	——	——	——	
6BJ7	Triple Diode	B0a	H	6.3	0.45	DC Restorer in Color TV	Each Diode: Max. Peak Inverse Plate Volts, 330; Max. Peak Plate Ma., 10							Max. Average Plate Ma., 1			**6BJ7**
6BJ8	Twin Diode Medium-Mu Triode	B1o	H●	6.3	0.6	Triode Unit as Class A Amplifier	90	0	——	——	13.5	4700	4700	22	——	——	**6BJ8**
							250	− 9	——	——	8	7150	2800	20	——	——	
						Triode Unit as Vertical Deflection Amplifier	Max. DC Plate Volts, 300; Max. Peak Cathode Ma., 70					Max. Peak Positive-Pulse Plate Volts, 1200 (Abs.); Max. Plate Dissipation, 3.5 watts					
6BK4	Sharp-Cutoff Beam Triode	E1a	H	6.3	0.2	Voltage-Control	Max. DC Plate Volts, 25000; Max. Unregulated DC Supply Volts, 55000							Max. DC Plate Ma., 1.5; Max. Plate Dissipation, 25 Watts			**6BK4**
6BK5	Beam Power Tube	B1a	H	6.3	1.2	Class A Amplifier	250	− 5	250	3.5	35	100000	8500	——	6500	3.5	**6BK5**
6BK7-A **6BK7-B**	Medium-Mu Twin Triodes	B0a	H H●	6.3	0.45	Each Unit as Class A Amplifier	150	Cathode Bias Res., 56 ohms			18	4600	9300	43	Grid-No. 1 Volts for Cutoff, − 11		6BK7-A **6BK7-B**
6BL4	Half-Wave Rectifier	D11b	H	6.3	3.0	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Abs.); Max. Peak Plate Ma., 1200; Max. DC Plate Ma., 200					Max. Peak Heater-Cathode Volts: −4500* (Abs.), +300; *DC component not to exceed −900 volts					6BL4
6BL7-GT	Medium-Mu Twin Triode	C2c	H	6.3	1.5	Vertical Deflection Amplifier	Max. DC Plate Volts, 500; Max. DC Cathode Ma. (Each Unit), 60					Max. Peak Positive-Pulse Plate Volts, 1800; Max. Plate Dissipation (Each Unit), 10 watts					6BL7-GT
6BL7-GTA	Medium-Mu Twin Triode	C2c	H	6.3	1.5	Vertical Deflection Amplifier (Unit No. 2)	Max. DC Plate Volts, 500; Max. DC Cathode Ma., 60					Max. Peak Positive-Pulse Plate Volts, 2000 (Abs.); Max. Plate Dissipation, 10 watts					**6BL7-GTA**
						Vertical Deflection Oscillator (Unit No. 1)	Max. DC Plate Volts, 500; Max. Plate Dissipation, 10 watts					Max. DC Cathode Ma., 60; Max. Peak Neg. Grid Volts, 400					
6BN4	Medium-Mu Triode	B0	H	6.3	0.2	Class A Amplifier	150	Cathode Bias Res., 150 ohms			9	6300	6800	43	——	——	**6BN4**
6BN4-A	Medium-Mu Triode	B0	H	6.3	0.2	Class A Amplifier	150	Cath. Bias Res., 220 ohms			9	5400	8000	43	——	——	**6BN4-A**
6BN6	Beam Power Tube	B1	H	6.3	0.3	Limiter and Discriminator	Max. DC Plate Volts, 300; Max. Positive-Peak Grid-No. 1 Volts, 55			Max. Cathode Ma., 11.5; Max. Peak Heater-Cathode Volts, 90			Max. Grid-No. 2 Volts, 100				**6BN6**
6BN8	Twin-Diode High-Mu Triode	B1a	H●	6.3	0.6	Triode Unit as Class A Amplifier	100	− 1	——	——	1.5	21000	3500	75	——	——	**6BN8**
							250	− 3	——	——	1.6	28000	2500	70	——	——	
6BQ5	Beam Power Tube	C0a	H	6.3	0.76	Class A Amplifier	250	− 7.3	250	5.5	48	38000	11300	——	4500	5.7	**6BQ5**
						Push-Pull Class AB_1 Amplifier	250	Cath. Bias	250	7◆	62◆	Cath. Bias Res., 130 ohms			8000	11†	
							300	Cath. Bias	300	8◆	72◆	Cath. Bias Res., 130 ohms			8000	12†	
6BQ6-GT	Beam Power Tube	C11	H	6.3	1.2	Horizontal Deflection Amplifier	Max. DC Plate Volts, 550; Max. DC Cathode Ma., 110					Max. Peak Positive-Pulse Plate Volts, 5500 (Abs.); Max. Plate Dissipation, 11 watts					6BQ6-GT
6BQ6-GTB/ 6CU6	Beam Power Tube	C11	H	6.3	1.2	Horizontal Deflection Amplifier	Max. DC Plate Volts, 600; Max. DC Cathode Ma., 112.5					Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.); Max. Plate Dissipation, 11 Watts					**6BQ6-GTB/ 6CU6**
6BQ7	Medium-Mu Twin Triode	B0a	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			9.0	5800	6000	35	Grid-No. 1 Volts for Cutoff, −10		6BQ7
6BQ7-A	Medium-Mu Twin Triode	B0a	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			9.0	6100	6400	39	Grid-No. 1 Volts for Cutoff, −10		**6BQ7-A**
6BR8 6BR8-A	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	H H●	6.3	0.4	Triode Unit as Class A Amplifier	150	Cath. Bias	——	——	18	5000	8500	40	Cath. Bias Res., 56 ohms		**6BR8 6BR8-A**
						Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	5200	——	Cath. Bias Res., 68 ohms		
6BS8	Medium-Mu Twin Triode	B0a	H	6.3	0.4	Cascode Amplifier	250	− 1	——	——	16	——	10000	——	——	——	**6BS8**
						Each Unit as Class A Amplifier	150	Cath. Bias	——	——	10	5000	7200	36	Cath. Bias Res., 220 ohms		
6BU8	Sharp-Cutoff Twin Pentode	B1a	H	6.3	0.3	Class A Amplifier With Both Sections Operating	100	:	67.5	6.5	——	Grid-No. 3 volts, each section, −10					**6BU8**
							100	:	67.5	3.3	2.2	Grid-No. 3 volts, each section, 0					
							:Grid current adjusted for 100 microamperes DC										
6BW4	Full-Wave Rectifier	B1a	H	6.3	0.9	With Capacitive Input Filter	Max. AC Volts per Plate (RMS), 325; Max. Peak Inverse Volts, 1275; Min. Total Effect. Supply Imped. per Plate, 82 ohms						Max. DC Output Ma., 100; Max. Peak Plate Ma. per Plate, 350				**6BW4**
						With Inductive Input Filter	Max. AC Volts per Plate (RMS), 450; Max. Peak Inverse Volts, 1275; Min. Value of Input Choke, 10 henries						Max. DC Output Ma., 100; Max. Peak Plate Ma. per Plate, 350				
6BX7-GT	Medium-Mu Twin Triodes	C2c	H	6.3	1.5	Vertical Deflection Oscillator	Max. DC Plate Volts, 500; Max. Plate Dissipation: 10 watts either plate; 12 watts both plates							Max. DC Cathode Ma., 180			**6BX7-GT**
						Vertical Deflection Amplifier	Max. DC Plate Volts, 500; Max. DC Cath. Ma., 180					Max. Peak Positive-Pulse Plate Volts, 2000 (Abs.); Max. Plate Dissipation: 10 watts either plate; 12 watts both plates.					
6BY5-GA	Full-Wave Rectifier	C11a	H	6.3	1.6	Television Damper Service	Max. Peak Inverse Plate Volts, 3000 (Abs.); Max. Peak Plate Ma., 525; Max. DC Plate Ma., 175						Max. Peak Heater-Cathode Volts: −450, +100				**6BY5-GA**

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
6BY6	Pentagrid Amplifier	80	H	6.3	0.3	Sync Separator and Sync Clipper	10	0	25	3.5	1.4	Grid-No. 3 Volts, 0					6BY6
6BY8	Diode Sharp-Cutoff Pentode	81a	H●	6.3	0.6	Diode Unit	Max. Peak Inverse Plate Volts, 430 Max. Peak Plate Ma., 180					Max. DC Plate Ma., 45 Max. Peak Heater-Cathode Volts, ±200					6BY8
						Pentode Unit as Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5 10.6	500000 1§	3900 5200	Cath. Bias Res., 150 ohms Cath. Bias Res., 68 ohms			
6BZ6	Semiremote-Cutoff Pentode	80	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	2.6	11	0.6§	6100	Cath. Bias Res., 180 ohms			6BZ6
6BZ7	Medium-Mu Twin-Triode	80a	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			10	5600	6800	36	Grid-No. 1 Volts for Cutoff, −7		6BZ7
6BZ8	Medium-Mu Twin Triode	80a	H	6.3	0.4	Each Unit as Class A Amplifier	125	Cath. Bias Res., 100 ohms			10	5600	8000	45	——	——	6BZ8
6C4	HF Power Triode	80	H	6.3	0.15	Class A Amplifier	100 250	0 −8.5	——	——	11.8 10.5	6250 7700	3100 2200	19.5 17	——	——	6C4
						Class C Amplifier	300	−27.0	Grid Ma., 7		28.0	Driving Power, 0.35 watt			——	5.5	

One vertical rule before or after type No. = GT or other larger glass type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

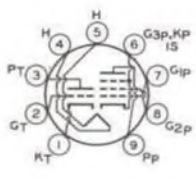
□ Grid # 2 tied to plate.

Note 1: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.

§ Megohms.

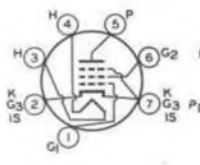
♠ For two tubes.

! Power output is for two tubes at stated plate-to-plate load.



6BA8-A

6BC4



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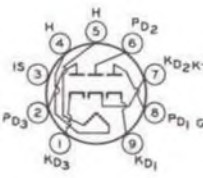

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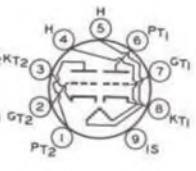
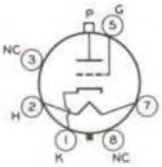
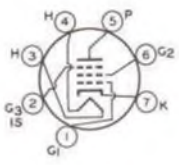


6BC8 6BK7-A 6BK7-B



6BD4 6BD4-A



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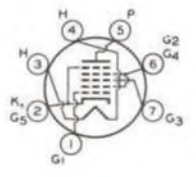

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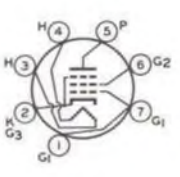

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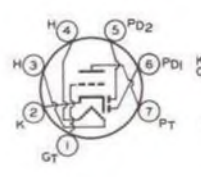

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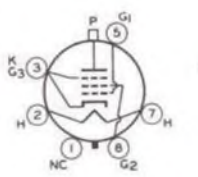
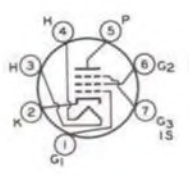
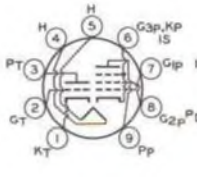


6BG6-G 6BG6-GA



6BH6 6BJ6



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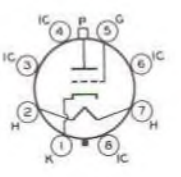
6BJ7

6BJ8



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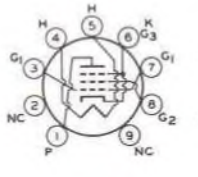

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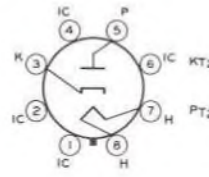

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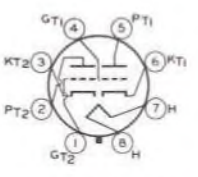
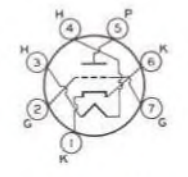


6BL7-GT 6BL7-GTA



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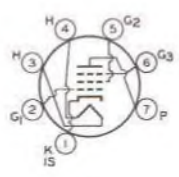

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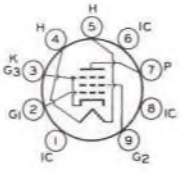
6BN8



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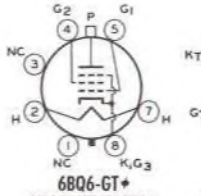
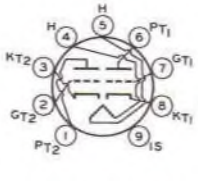


6BQ6-GT♦
6BQ6-GTB/6CU6♦



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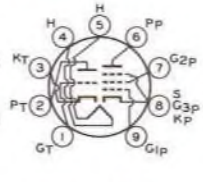

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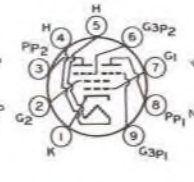

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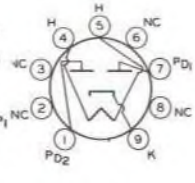

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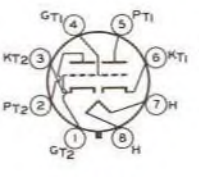

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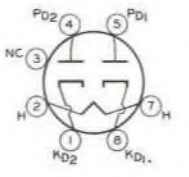

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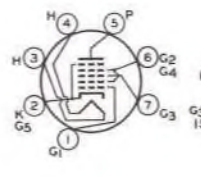

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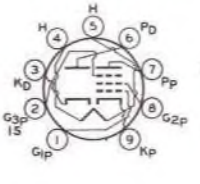

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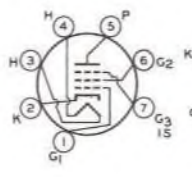

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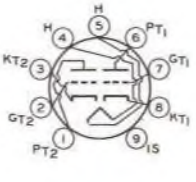

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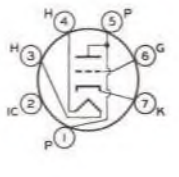


6C4

♦ On the 6-pin bases pin 1 as well as pin 6 is omitted.

Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma	Plate Current Ma	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
6C5 6C5-GT	Medium-Mu Triodes	B3 C3	H	6.3	0.3	Class A Amplifier	250 90♥ 300♥	− 8.0 Cath. Bias, 6400 ohms. Cath. Bias, 5300 ohms.	——	——	8.0	10000 Grid Resistor,** 0.25 megohm.	2000	20	—— Gain per stage = 11 Gain per stage = 13	——	6C5 6C5-GT
						Bias Detector	250	−17.0 approx. Plate current to be adjusted to 0.2 milliampere with no signal.									
6C6	Sharp-Cutoff Pentode	D13a	H	6.3	0.3	Amplifier Detector	For other characteristics, refer to Type 6J7.										6C6
6C7	Twin-Diode Triode	D9	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 9.0	——	——	4.5	16000	1250	20	——	——	6C7
6C8-G	Medium-Mu Twin-Triode	D8	H	6.3	0.3	Each Unit as Class A Amplifier	250	− 4.5	——	——	3.2	22500	1600	36	——	——	6C8-G
6CB5	Beam Power Tube	E0a E0	H	6.3	2.5	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 200					Max. Peak Positive-Pulse Plate Volts, 6800 (Abs.) Max. Plate Dissipation, 23 Watts					6CB5
6CB5-A	Beam Power Tube	E0a E0	H	6.3	2.5	Horizontal Deflection Amplifier	Max. DC Plate Volts, 800 Max. DC Cathode Ma., 220					Max. Peak Positive-Pulse Plate Volts, 6800 (Abs.) Max. Plate Dissipation, 23 Watts					6CB5-A
6CB6 6CB6-A	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	125	Cath. Bias	125	3.7	13	280000	8000	Cath. Bias Res., 56 ohms			6CB6 6CB6-A
6CD6-G 6CD6-GA	Beam Power Tubes	F1 E0	H	6.3	2.5	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 200					Max. Peak Positive-Pulse Plate Volts, 7000 Max. Plate Dissipation, 20 watts					6CD6-G 6CD6-GA
6CF6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	200	− 6.5	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms			6CF6
6CG7	Medium-Mu Twin-Triode	B1a	H●	6.3	0.6	Horizontal Deflection Oscillator	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 600					Max. Peak Cathode Ma., 300 Max. DC Cathode Ma., 20			Max. Dissipation (Watts): either plate, 3.5 both plates, 5		6CG7
						Vertical Deflection Oscillator	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 400					Max. Peak Cathode Ma., 70 Max. DC Cathode Ma., 20					
6CG8 6CG8-A	Triode Pentode Converter	B0a	H H●	6.3	0.45	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 ma.				Plate Current, 13 ma. Power Output (Approx.), 0.5 watt					6CG8 6CG8-A
						Pentode Unit as Mixer	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Conversion Transcond., 2100 μmhos				Plate Current, 6.2 ma. Mixer Grid-No. 1 Resistor, 120000 ohms Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6					
						Triode Unit as Class A Amplifier	100	Cath. Bias	——	——	8.5	6900	5800	40	Cath. Bias Res., 100 ohms		
						Pentode Unit as Class A Amplifier	250	Cath. Bias	150	1.6	7.7	750000	4600	——	Cath. Bias Res., 200 ohms		
6CH8	Medium-Mu Triode Sharp-Cutoff Pentode	B4b	H	6.3	0.45	Triode Unit as Class A Amplifier	200	− 6	——	——	13	5750	3300	19	——	——	6CH8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	——	Cath. Bias Res., 120 ohms		
6CK4	Low-Mu Triode	C5	H	6.3	1.25	Vertical Deflection Amplifier	Max. DC Plate Volts, 550 Max. Peak Cathode Ma., 350					Max. Peak Positive-Pulse Plate Volts, 2000 (Abs.) Max. Plate Dissipation, 12 watts					6CK4
6CL6	Power Pentode	B1a	H	6.3	0.65	Class A Amplifier 4-Mc. Bandwidth Video Circuit	300	− 2	300	7.0	30.0	Load Resistor, 3900 ohms Peak-to-Peak Grid-No. 1 Signal Volts, 3 Peak-to-Peak Output Volts, 132 approx.					6CL6
6CL8	Medium-Mu Triode Sharp-Cutoff Tetrode	B0a	H●	6.3	0.45	Triode Unit as Class A Amplifier	125	Cath. Bias	——	——	15	5000	8000	40	Cath. Bias Res., 56 ohms		6CL8
						Tetrode Unit as Class A Amplifier	125	− 1	125	4	12	100000	5800	——	——	——	
6CL8-A	Medium-Mu Triode Sharp-Cutoff Tetrode	B0r	H●	6.3	0.45	Triode Unit as Class A Amplifier	125	Cath. Bias Res., 56 ohms			15	5000	8000	40	——	——	6CL8-A
						Tetrode Unit as Class A Amplifier	125	− 1	125	4	12	100000	6400	——	——	——	
6CM6	Beam Power Tube	B1a	H	6.3	0.45	Class A Amplifier	180 315	−8.5 −13	180 225	3 2.2	29 34	50000 80000	3700 3750	——	5500 8500	2 5.5	6CM6
						Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 140					Max. Peak Positive-Pulse Plate Volts, 2000 (Abs.) Max. Plate Dissipation, 8 watts					
6CM7	Dual Triode With Dissimilar Units	B1a	H●	6.3	0.6	Vertical Deflection Oscillator (Unit No. 1)	Max. DC Plate Volts, 500 Max. Peak Neg.-Pulse Grid Volts, 200					Max. Peak Cathode Ma., 70		Max. DC Cathode Ma., 15	Max. Plate Dissipation 1.25 watts		6CM7
						Vertical Deflection Amplifier (Unit No. 2)	Max. DC Plate Volts, 500 Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.)					Max. Peak Neg.-Pulse Grid Volts, 200 Max. Peak Cathode Ma., 70					
6CM8	High-Mu Triode—Sharp-Cutoff Pentode	B0a	H●	6.3	0.45	Triode Unit as Class A Amplifier	250	− 2	——	——	1.8	50000	2000	100	——	——	6CM8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms			
6CN7	Twin Diode High-Mu Triode	B0b	H	●3.15 6.3	0.6 0.3	Triode Unit as Class A Amplifier	100 250	− 1 − 3	——	——	0.8 1	54000 58000	1300 1200	70 70	——	——	6CN7
6CQ8	Medium-Mu Triode Sharp-Cutoff Tetrode	B0a	H●	6.3	0.45	Triode Unit as Class A Amplifier	125	Cath. Bias	——	——	15	5000	8000	40	Cath. Bias Res., 56 ohms		6CQ8
						Tetrode Unit as Class A Amplifier	125	− 1	125	4.2	12	140000	5800	——	——	——	
6CR6	Diode Remote-Cutoff Pentode	B0	H	6.3	0.3	Pentode Unit as Class A Amplifier	250	− 2	100	3	9.5	200000	1950	Grid-No. 1 Volts for transcond. of 10 micromhos, −40			6CR6
6CS6	Pentagrid Amplifier	B0	H	6.3	0.3	Sync Separator and Sync Clipper	10	——	30	4.5	2	Grid-No. 3 Volts, 0 Grid-No. 1 Volts, 0			——	——	6CS6
						Class A Amplifier	100 100	− 1 0	30 30	5.5 1.3	0.8 1	700000 15	—— 1100		Grid-No. 3 Volts, −1 Transcond., 1500 μmhos Grid-No. 3 Volts, 0 Transcond., 0 μmhos		
6CS7	Dual Triode With Dissimilar Units	B1a	H●	6.3	0.6	Vertical Deflection Oscillator (Unit No. 1)	Max. DC Plate Volts, 500 Max. Peak Neg.-Pulse Grid Volts, 400					Max. Peak Cathode Ma., 70 Max. DC Cathode Ma., 15			Max. Plate Dissipation, 1.25 watts		6CS7
						Vertical Deflection Amplifier (Unit No. 2)	Max. DC Plate Volts, 500 Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.)					Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 105					
6CU5	Beam Power Tube	B1	H	6.3	1.2	Class A Amplifier	120	− 8	110	4	49	10000	7500	——	2500	2.3	6CU5
6CU8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	H●	6.3	0.45	Triode Unit as Class A Amplifier	200	− 6	——	——	13	5750	3300	19	——	——	6CU8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	——	Cath. Bias Res., 180 ohms		
6CX8	Medium-Mu Triode—Sharp-Cutoff Pentode	B1a	H	6.3	0.75	Triode Unit as Class A Amplifier	150	Cath. Bias Res., 150 ohms			9.2	8700	4600	40	——	——	6CX8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	125	5.2	24	70000	10000	Cath. Bias Res., 68 ohms			
6CY5	Sharp-Cutoff Tetrode	B0	H	6.3	0.2	Class A Amplifier	125	−1	80	1.5	10	100000	8000	——	——	——	6CY5
6CY7	Dual Triode With Dissimilar Units	B1a	H	6.3	0.75	Vertical Deflection Oscillator (Unit No. 1)	Max. Peak Neg.-Pulse Grid Volts, 400 Max. DC Plate Volts, 350								Max. Plate Dissipation, 1 watt		6CY7
						Vertical Deflection Amplifier (Unit No. 2)	Max. Peak Pos.-Pulse Plate Volts, 1800 Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 120								Max. Plate Dissipation, 5.5 watts Max. DC Plate Volts, 350		
6CZ5	Beam Power Tube	B1a	H	6.3	0.45	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 140					Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts					
						Class A Amplifier	250	−14	250	4.6	46	23000	4800	——	5000	5.4	6CZ5
						Push-Pull Class AB_1 Amplifier	350	−23.5	280	3	46	——	——	——	7500	21.5	

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
6D6	Remote-Cutoff Pentode	D13a	H	6.3	0.3	Amplifier Mixer	For other characteristics, refer to Type 6U7-G.										6D6
6D7	Sharp-Cutoff Pentode	D13a	H	6.3	0.3	Amplifier Detector	For other characteristics, refer to Type 6J7.										6D7
6D8-G	Pentagrid Converter ◘	D8	H	6.3	0.15	Converter	135 250	− 3.0 − 3.0	67.5 100	1.7 2.6	1.5 3.5	600000 400000	Anode-Grid (# 2): 250 ♠ max. volts, 4.3 ma. Oscillator-Grid (# 1) Resistor ◘. Conversion Transcond., 550 micrombos.				6D8-G
6DA4	Half-Wave Rectifier	C2c	H	6.3	1.2	Television Damper Service	Max. Peak Inverse Volts, 4400 (Abs.) Max. Peak Plate Ma., 900								Max. Average Plate Ma., 155 Max. Plate Dissipation, 5.5 watts		6DA4
6DC6	Semiremote-Cutoff Pentode	B8	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	3.0	9.0	500000	5500	Cath. Bias Res., 180 ohms			6DC6
6DE4	Half-Wave Rectifier	C10b	H	6.3	1.6	Television Damper Service	Max. Peak Inverse Plate Volts, 5000 Max. Peak Heater-Cathode Volts, −5000 (DC Component Not to Exceed 900 Volts) Max. Peak Heater-Cathode Volts, +300 (DC Component Not to Exceed 100 Volts) Max. DC Plate Ma., 175							Max. Peak Plate Ma., 1100				6DE4
6DE6	Sharp-Cutoff Pentode	B8	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	0.6§	6200	Cath. Bias Res., 180 ohms			6DE6

Light Face = Discontinued type.

One vertical rule before or after type No. = GT or other larger glass type.

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ⅛ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

• Supply voltage applied through 20000-ohm voltage-dropping resistor.

Note 1: Subscript 1 on class of amplifier service (as AB$_1$) indicates that grid current does not flow during any part of input cycle.

♥ Applied through plate resistor of 100000 ohms.

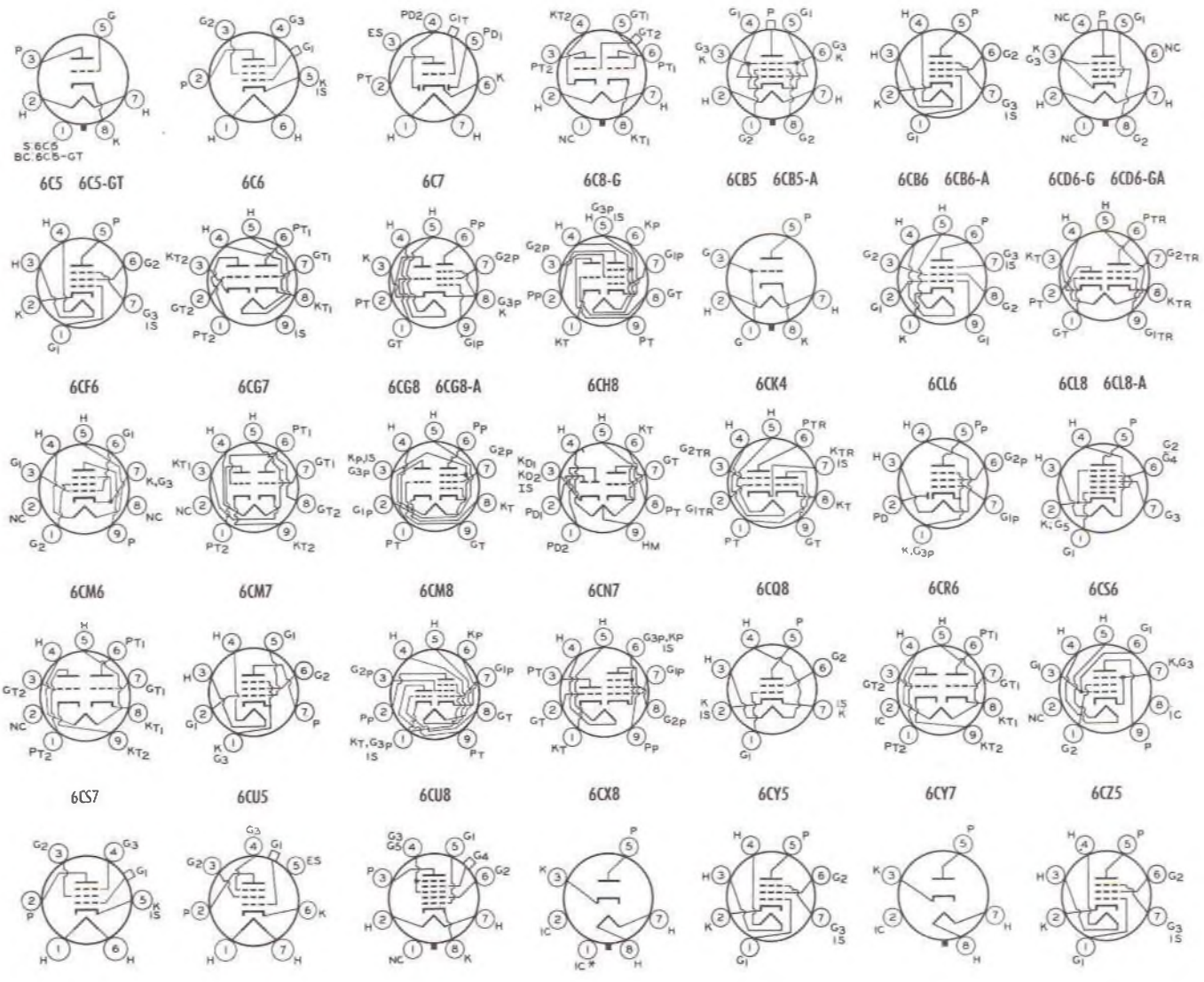
§ Megohms. □ Grid # 2 tied to plate.

♠ For two tubes.

•• For grid of following tube.

√ With separate excitation and triode unit grounded.

♠ 50000 ohms.



Pin numbers with asterisks may be connected to filament, otherwise do not use.

Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
6DE7	Dual Triode With Dissimilar Units	B1a	Ha	6.3	0.95	Vertical Deflection Oscillator (Unit No. 1)	Max. Peak Neg.-Pulse Grid Volts, 400 Max. Peak Cathode Ma., 77				Max. DC Plate Volts, 330			Max. Plate Dissipation, 1.5 watts			6DE7
						Vertical Deflection Amplifier (Unit No. 2)	Max. Peak Pos.-Pulse Plate Volts, 1500 (Abs.) Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 175							Max. Plate Dissipation, 7 watts Max. DC Plate Volts, 275			
6DG6-GT	Beam Power Tube	C2a	H	6.3	1.2	Class A Amplifier	110 200	— 7.5 Cath. Res., 180 ohms	110 125	4 2.2	49 46	13000 28000	8000 8000	——	2000 4000	2.1 3.8	6DG6-GT
6DK6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	125	Cath. Bias	125	3.8	12	350000	9800	Cath. Bias Res., 56 ohms			6DK6
6DN6	Beam Power Tube	E	H	6.3	2.5	Horizontal-Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 200					Max. Peak Positive-Pulse Plate Volts, 6600 (Abs.) Max. Plate Dissipation, 15 watts					6DN6
6DN7	Dual Triode With Dissimilar Units	C0	H	6.3	0.9	Vertical Deflection Oscillator (Unit No. 1)	Max. Peak Neg.-Pulse Grid Volts, 400 Max. DC Plate Volts, 350							Max. Plate Dissipation, 1 watt			6DN7
						Vertical Deflection Amplifier (Unit No. 2)	Max. Peak Pos.-Pulse Plate Volts, 2500 Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 150							Max. Plate Dissipation, 10 watts Max. DC Plate Volts, 550			
6DQ5	Beam Power Tube	D11	H	6.3	2.5	Horizontal Deflection Amplifier	Max. DC Plate Volts, 900 Max. DC Cathode Ma., 285					Max. Peak Positive-Pulse Plate Volts, 7000 (Abs.) Max. Plate Dissipation, 24 watts					6DQ5
6DQ6-A	Beam Power Tube	D6	H	6.3	1.2	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 140					Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 watts					6DQ6-A
6DR7	Dual Triode With Dissimilar Units	B1a	H	6.3	0.9	Vertical Deflection Oscillator	Unit No. 1: Max. DC Plate Volts, 330 Max. Peak Cathode Ma., 70							Max. Peak Neg.-Pulse Grid Volts, 400 Max. Plate Dissipation, 1 watt			6DR7
						Vertical Deflection Amplifier	Unit No. 2: Max. DC Plate Volts, 275 Max. Peak Pos.-Pulse Plate Volts, 1500 Max. Plate Dissipation, 7 watts							Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 175			
6DS5	Beam Power Tube	B1	H	6.3	0.8	Class A Amplifier	200 250	— 7.5 — 8.5	200 200	3 3	35 29	28000 28000	6000 5800	——	6000 8000	3 3.8	6DS5
6DT5	Beam Power Tube	B1a	H	6.3	1.2	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 190					Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 9 watts					6DT5
6DT6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	Class A Amplifier	150	Cath. Bias	100	2.1	1.1	150000	515	Cath. Bias Res., 560 ohms			6DT6
						FM Detector	250	Cath. Bias	100	5.5	0.22	Grid-No. 3 Volts, — 6; Cath. Res., 560 ohms Plate Load Resistor, 270000 ohms					
6DT8	High-Mu Twin Triodes	B0a	H	6.3	0.3	Class A Amplifier	100 250	Cath. Bias Res., 270 ohms Cath. Bias Res., 200 ohms			3.7 10	15000 10900	4000 5500	60 60	——	——	6DT8
6E5	Electron-Ray Tube	D4	H	6.3	0.3	Visual Indicator	Plate & Target Supply = 125 volts. Triode Plate Resistor = 1.0 meg. Target Current = 0.8 ma. Grid Bias, — 4.0 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.1 ma.										6E5
							Plate & Target Supply = 250 volts. Triode Plate Resistor = 1.0 meg. Target Current = 2.0 ma. Grid Bias, — 7.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.2 ma.										
6E6	Twin-Triode Power Amplifier	D12a	H	6.3	0.6	Push-Pull Class A Amplifier	180 250	— 20.0 — 27.5	——	——	Power Output is for one tube at stated plate-to-plate load.				15000 14000	0.75 1.60	6E6
6E7	Remote-Cutoff Pentode	D13a	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6U7-G.										6E7
6EA8	Triode—Pentode Converter	B0a	Ha	6.3	0.45	Triode Unit as Class A Amplifier	150	Cath. Bias	——	——	18	5000	8500	40	Cath. Bias Res., 56 ohms		6EA8
						Pentode Unit as Class A Amplifier	125	— 1	125	4	12	80000	6400	——	——	——	
6EB8	High-Mu Triode—Sharp-Cutoff Pentode	B1a	H	6.3	0.75	Triode Unit as Class A Amplifier	250	— 2	——	——	2	37000	2700	100	——	——	6EB8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	125	7	25	75000	12500	Cath. Bias Res., 68 ohms			
6EH5	Power Pentode	B1	H	6.3	1.2	Class A Amplifier	110	Cath. Res., 62 ohms	115	11.5	42	11000	14600	——	8000	1.4	6EH5
6EH8	Medium-Mu Triode—Sharp-Cutoff Pentode	B0a	Ha	6.3	0.45	Triode Unit as Class A Amplifier	125	— 1	——	——	13.5	——	7500	40	——	——	6EH8
						Pentode Unit as Class A Amplifier	125	— 1	125	4	12	170000	6000	——	——	——	
6EM5	Beam Power Tube	C6a	H	6.3	0.8	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 210					Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts					6EM5
						Class A Amplifier	250	— 18	250	3	36	——	5100	8.7	——	——	
6EW6	Sharp-Cutoff Pentode	B0	H	6.3	0.4	Class A Amplifier	125	Cath. Bias	125	3.2	11	200000	14000	Cath. Bias Res., 56 ohms			6EW6
6F5 6F5-GT	High-Mu Triodes	C1 C2a	H	6.3	0.3	Class A Amplifier	100 250	— 1.0 — 2.0	——	——	0.4 0.9	85000 66000	1150 1500	100 100	——	——	6F5 6F5-GT
							90 Ω 300 Ω	Cath. Bias, 8800 ohms. Cath. Bias, 3200 ohms.	Grid Resistor, **0.5 megohm.					Gain per stage = 43 Gain per stage = 63			
6F6 6F6-G 6F6-GT	Power Pentodes	C2a D11c C10	H	6.3	0.7	Pentode Class A Amplifier	250 285	— 16.5 — 20.0	250 285	6.5 7.0	34.0 38.0	80000 78000	2500 2550	——	7000 7000	3.2 4.8	6F6 6F6-G 6F6-GT
						Triode‡ Class A Amplifier	250	— 20.0	——	——	31.0	2600	2600	6.8	4000	0.85	
						Pentode Push-Pull Class A Amplifier	315 315	Cath. Bias — 24.0	285 285	12.0♠ 12.0♠	62.0♠ 62.0♠	Cath. Bias Resistor, 320 ohms♠ ——			10000 10000	10.5† 11.0†	
6F7	Medium-Mu Triode—Remote-Cutoff Pentode	D8	H	6.3	0.3	Triode Unit as Class A Amplifier	100	{ — 3.0 min.	——	——	3.5	16000	500	8	——	——	6F7
						Pentode Unit as Class A Amplifier	100 250	{ — 3.0 min.	100 100	1.6 1.5	6.3 6.3	290000 850000	1050 1100	——	——	——	
						Pentode Unit as Mixer	250	— 10.0	100	0.6	2.8	Oscillator Peak Volts = 7.0. Conversion Transcond. = 300 micromhos.					
6F8-G	Twin-Triode Amplifier	D8	H	6.3	0.6	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6J5.										6F8-G
6FG6	Electron-Ray Tube	B5b	H	6.3	0.27	Visual Indicator	For other characteristics, refer to Type EM84/6FG6.										6FG6
6FV6	Sharp-Cutoff Tetrode	B0	H	6.3	0.2	Class A Amplifier	125	— 1	80	1.5	10	100000	8000	——	——	——	6FV6
6FW8	Medium-Mu Twin Triode	B0a	H	6.3	0.4	Each Unit as Class A Amplifier	125	— 2	——	——	15	2600	12500	33	——	——	6FW8
6G6-G	Power Amplifier Pentode	D3	H	6.3	0.15	Pentode Class A Amplifier	135 180	— 6.0 — 9.0	135 180	2.0 2.5	11.5 15.0	170000 175000	2100 2300	——	12000 10000	0.6 1.1	6G6-G
6H6 6H6-GT	Twin Diodes	A1b C3	H	6.3	0.3	Voltage Doubler	Max. AC Supply Volts per Plate (RMS), 150 Min. Total Effect. Plate-Supply Imped. per Plate: half-wave, 30 ohms; full-wave, 15 ohms.							Max. DC Output Ma., 8 min.			6H6
						Half-Wave Rectifier	Max. AC Plate Volts (RMS), 150 Max. DC Output Ma., 8 per Plate					Min. Total Effective Plate-Supply Impedance: up to 117 volts, 15 ohms; at 150 volts, 40 ohms.					6H6-GT
6J5 6J5-GT	Medium-Mu Triodes	B3 C3	H	6.3	0.3	Class A Amplifier	90 250	0 — 8.0	——	——	10.0 9.0	6700 7700	3000 2600	20 20	——	——	6J5 6J5-GT
6J6	Medium-Mu Twin Triode	B0	H	6.3	0.45	Each Unit as Class A Amplifier	100	Cathode Resistor, for both units, 50 ohms			8.5	7100	5300	38	——	——	6J6
						Push-Pull Class C Amplifier	150	— 10.0	Cath. Res., 220 ohms, both units		30.0	Grid Current, 16 ma. Driving Power, 0.35 watt.			——	3.5	

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating C.T.	Volts	Amp.	Use — Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
6J7	Sharp-Cutoff Pentodes	C1	H	6.3	0.3	Pentode Class A RF Amplifier	100	− 3.0	100	0.5	2.0	1.0§	1185	——	——	——	6J7
							250	− 3.0	100	0.5	2.0	1.0 +§	1225				
6J7-G		D8				Pentode Class A AF Amplifier	90 ✖	Cath. Bias, 2600 ohms. Screen Resistor = 1.2 meg.				Grid Resistor,** 0.5 megohm.		Gain per stage = 85			6J7-G
							300 ✖	Cath. Bias, 1200 ohms. Screen Resistor = 1.2 meg.						Gain per stage = 140			
6J7-GT		C3				Pentode Bias Detector	250	− 4.3	100	Cathode Current 0.43 ma.		——	Plate Resistor, 500000 ohms. Grid Resistor,** 250000 ohms.				6J7-GT
6J8-G	Triode-Heptode Converter	D8	H	6.3	0.3	Triode Unit as Oscillator	100	Triode-Grid Resistor, 50000 ohms			4.0	Triode-Grid & Heptode-Grid Current, 0.3 ma.					6J8-G
							250 ▲				5.8	Triode-Grid & Heptode-Grid Current, 0.4 ma.					
						Heptode Unit as Mixer	100	− 3.0	100	3.0	1.4	900000	Conversion Transcond., 260 micromhos.				
							250	− 3.0	100	2.9	1.3	4.0§	Conversion Transcond., 290 micromhos.				
6K5-GT	High-Mu Triode	C3	H	6.3	0.3	Class A Amplifier	250	− 3.0	——	——	1.1	50000	1400	70	——	——	6K5-GT
6K6-GT	Power Pentode	C2x	H	6.3	0.4	Single-Tube Class A Amplifier	250	−18.0	250	5.5	32.0	90000	2300	——	7600	3.40	6K6-GT
							315	−21.0	250	4.0	25.5	110000	2100		9000	4.50	
						Push-Pull Class A Amplifier	285	−25.5	285	9.0♠	55.0♠	——	——	——	12000	10.5†	
							285	Cath. Bias	285	9.0♠	55.0♠	Cath. Bias Resistor, 400 ohms ♠			12000	9.8†	

Light Face = Discontinued type.

One vertical rule before or after type No. = GT or other larger glass type.

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

✖ Applied through plate resistor of 250000 ohms.

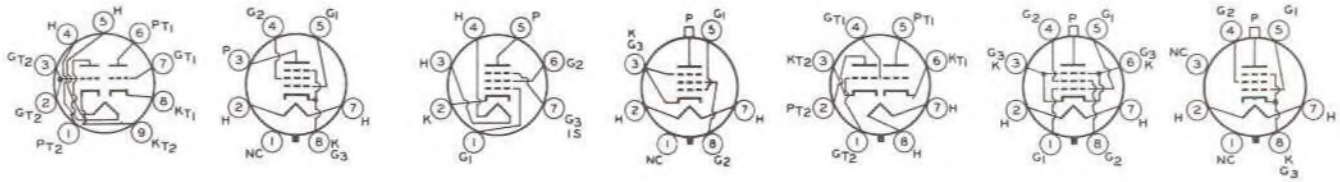
▲ Supply voltage applied through 20000-ohm voltage-dropping resistor.

§ Megohms.

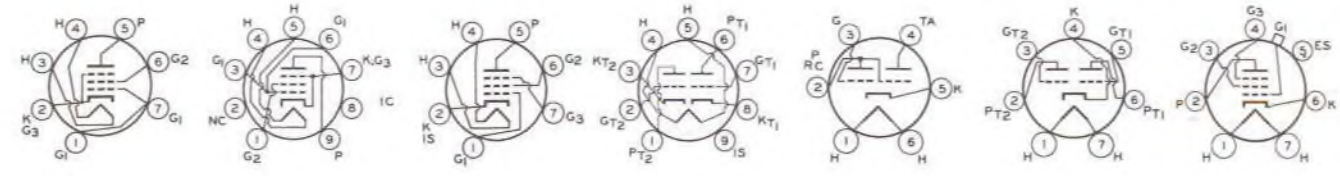
♠ For two tubes.

† Power output is for two tubes at stated plate-to-plate load.

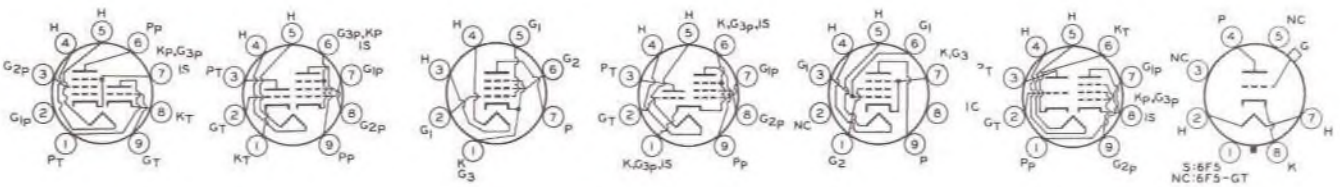
** For grid of following tube.



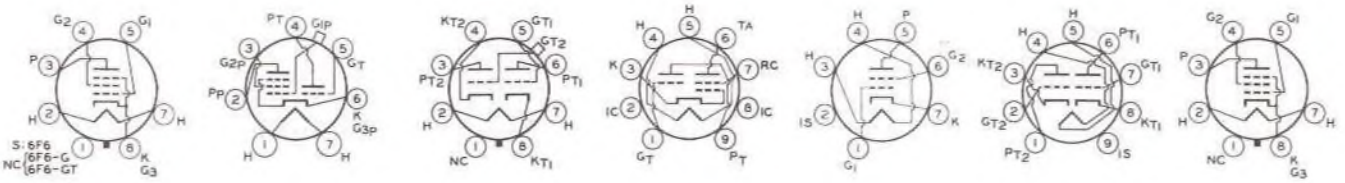
6DE7 6DR7 — 6DG6-GT — 6DK6 6EW6 — 6DN6 — 6DN7 — 6DQ5 — 6DQ6-A



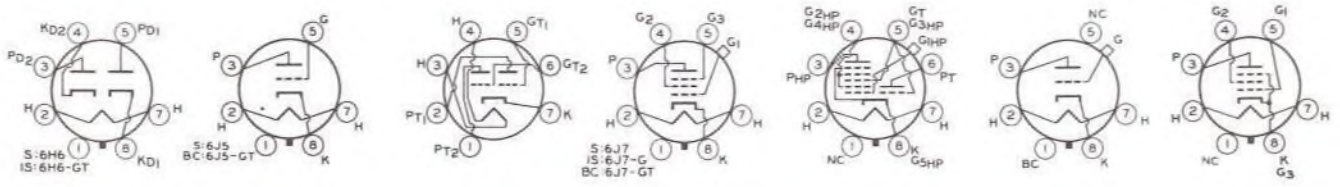
6DS5 — 6DT5 — 6DT6 — 6DT8 — 6E5 — 6E6 — 6E7



6EA8 — 6EB8 — 6EH5 — 6EH8 — 6EM5 — 6EU8 — 6F5 6F5-GT



6F6 6F6-G 6F6-GT — 6F7 — 6F8-G — 6FG6 — 6FV6 — 6FW8 — 6G6-G



6H6 6H6-GT — 6J5 6J5-GT — 6J6 — 6J7 6J7-G 6J7-GT — 6J8-G — 6K5-GT — 6K6-GT

Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amps.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
6K7 6K7-G **6K7-GT**	Remote-Cutoff Pentodes	C1 D8 C3	H	6.3	0.3	Class A Amplifier	250	− 3.0	125	2.6	10.5	600000	1650	——	——	——	**6K7** 6K7-G **6K7-GT**
						Mixer Service	250	−10.0	100	——	——	Oscillator Peak Volts = 7.0					
6K8 6K8-G 6K8-GT	Triode-Hexode Converters	C1 D8 C10	H	6.3	0.3	Triode Unit as Oscillator	100	Grid Res., 50000 ohms			3.8	Triode-Grid & Hexode-Grid Current, 0.15 ma.					**6K8** 6K8-G 6K8-GT
						Hexode Unit as Mixer	100	− 3.0	100	6.2	2.3	400000	Conversion Transcond., 325 micromhos.				
							250	− 3.0	100	6.0	2.5	600000	Conversion Transcond., 350 micromhos.				
6L5-G	Medium-Mu Triode	D3	H	6.3	0.15	Class A Amplifier	135	− 5.0	——	——	3.5	11300	1500	17	——	——	6L5-G
							250	− 9.0	——	——	8.0	9000	1900	17			
6L6	Beam Power Tubes	D7	H	6.3	0.9	Single-Tube Class A Amplifier	250	−14.0	250	5.0	72.0	——	——	——	2500	6.5	**6L6**
							250	Cath. Bias	250	5.4	75.0	Cath. Bias Resistor, 168 ohms.			2500	6.5	
6L6-G		E2				Push-Pull Class A Amplifier	270	−17.5	270	11.0♠	134.0♠	——	——	——	5000	17.5†	6L6-G
							270	Cath. Bias	270	11.0♠	134.0♠	Cath. Bias Resistor, 124 ohms.♠			5000	18.5†	
6L6-GB		D6				Push-Pull Class AB1 Amplifier	360	−22.5	270	5.0♠	88.0♠	——	——	——	6600	26.5†	**6L6-GB**
							360	Cath. Bias	270	5.0♠	88.0♠	Cath. Bias Resistor, 248 ohms.♠			9000	24.5†	
6L7 6L7-G	Pentagrid Mixer▲	C1 D8	H	6.3	0.3	Mixer Service	250	− 3.0	100	7.1	2.4	Oscillator Grid (No. 3) Bias, −10 volts. Grid-No. 3 Peak Swing, 12 volts minimum. Conversion Transcond., 375 micromhos.					**6L7** 6L7-G
						Class A Amplifier	250	− 3.0§	100	6.5	5.3	600000	1100	——	——	——	
6N6-G	Direct-Coupled Power Triode	D11c	H	6.3	0.8	Class A Amplifier	Output Triode: Plate Volts, 300; Plate Ma., 45; Load, 7000 ohms. Input Triode: Plate Volts, 300; Grid Volts, 0; A-F Signal Volts (Peak), 21; Plate Ma., 8.									4.0	6N6-G
6N7 **6N7-GT**	High-Mu Twin Power Triodes	C2a C2c	H	6.3	0.8	Class A Amplifier (as Driver)²	250	− 5.0	——	——	6.0	11300	3100	35	20000 or more	exceeds 0.4	**6N7** **6N7-GT**
							294	− 6.0			7.0	11000	3200	35			
						Class B Amplifier	300	0	Power Output for 1 tube at stated plate-to-plate load.						8000	10.0	
6P5-GT	Medium-Mu Triode	C2c	H	6.3	0.3	Amplifier Detector	For other characteristics, refer to Type 76.										P5-GT6
6P7-G	Triode-Pentode	D8	H	6.3	0.3	Amplifier and Converter	For other characteristics, refer to Type 6F7.										6P7-G
6Q7 6Q7-G **6Q7-GT**	Twin-Diode High-Mu Triodes	C1 D8 C3	H	6.3	0.3	Triode Unit as Class A Amplifier	100	− 1.0	——	——	0.8	58000	1200	70	——	——	**6Q7** 6Q7-G **6Q7-GT**
							250	− 3.0	——	——	1.1	58000	1200	70			
							300=	Cath. Bias, 3000 ohms.			Grid Resistor,** 0.5 megohm			Gain per stage = 45			
6R7 6R7-G 6R7-GT	Twin-Diode Medium-Mu Triodes	C1 D8 C2c	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 9.0	——	——	9.5	8500	1900	16	——	——	**6R7** 6R7-G 6R7-GT
							300♥	Cath. Bias, 5000 ohms.			Grid Resistor,** 0.22 megohm.			Gain per stage = 12			
6S4 **6S4-A**	Medium-Mu Triode	B1A	H H●	6.3	0.6	Vertical Deflection Amplifier	Max. DC Plate Volts, 500 Max. DC Cathode Ma., 30					Max. Peak Positive-Pulse Plate Volts, 2000 Max. Plate Dissipation, 7.5 watts					6S4 **6S4-A**
6S7 6S7-G	Remote-Cutoff Pentodes	C1 D8	H	6.3	0.15	Class A Amplifier	135	− 3.0	67.5	0.9	3.7	1.0§	1250	——	——	——	**6S7** 6S7-G
							250	− 3.0	100	2.0	8.5	1.0§	1750				
6S8-GT	Triple-Diode High-Mu Triode	C9a	H	6.3	0.3	Triode Unit as Class A Amplifier	100	− 1.0	——	——	0.4	110000	900	100	——	——	**6S8-GT**
							250	− 2.0	——	——	0.9	91000	1100	100	——	——	
6SA7 **6SA7-GT**	Pentagrid Converter▲	B3 C3	H	6.3	0.3	Mixer	100	Self-Excited	100	8.5	3.3	500000	Grid-No. 1 Resistor, 20000 ohms Conversion Transcond., 450 micromhos.				**6SA7** **6SA7-GT**
							250		100	8.5	3.5	1.0§					
6SB7-Y	Pentagrid Converter▲	B3	H	6.3	0.3	Mixer	100	− 1.0	100	10.2	3.6	500000	Grid-No. 1 Resistor, 20000 ohms Conversion Transcond., 950 micromhos				**6SB7-Y**
							250	− 1.0	100	10.0	3.8	1.0§					
6SC7	High-Mu Twin-Triode Amplifier	B3	H	6.3	0.3	Each Unit as Amplifier	250	− 2.0	——	——	2.0	53000	1325	70	——	——	**6SC7**
6SF5 **6SF5-GT**	High-Mu Triodes	B3 C2c	H	6.3	0.3	Class A Amplifier	100	− 1.0	——	——	0.4	85000	1150	100	——	——	**6SF5** **6SF5-GT**
							250	− 2.0			0.9	66000	1500	100			
							300 ✖	Cath. Bias, 3200 ohms.			Grid Resistor,** 0.5 megohm.			Gain per stage = 53			
6SF7	Diode-Remote-Cutoff Pentode	B3	H	6.3	0.3	Pentode Unit as Class A Amplifier	100	− 1.0	100	4.3	13.5	200000	1975	——	——	——	**6SF7**
							250	− 1.0	100	4.1	13.9	700000	2050				
6SG7	Remote-Cutoff Pentode	B3	H	6.3	0.3	Class A Amplifier	100	− 1.0	100	3.2	8.2	250000	4100	——	——	——	**6SG7**
							250	− 2.5	150	3.4	9.2	1.0+§	4000				
6SH7	Sharp-Cutoff Pentode	B3	H	6.3	0.3	Class A Amplifier	100	− 1.0	100	2.1	5.3	350000	4000	——	——	——	**6SH7**
							250	− 1.0	150	4.1	10.8	900000	4900				
6SJ7 **6SJ7-GT**	Sharp-Cutoff Pentodes	B3 C3	H	6.3	0.3	Class A Amplifier	100	− 3.0	100	0.9	2.9	700000	1575	——	——	——	**6SJ7** **6SJ7-GT**
							250	− 3.0	100	0.8	3.0	1.0+§	1650				
							300 ✖	Cath. Bias, 860 ohms.			Grid Resistor,** 0.5 megohm.			Gain per stage = 167			
6SK7 **6SK7-GT**	Remote-Cutoff Pentodes	B3 C3	H	6.3	0.3	Class A Amplifier	100	− 1.0	100	4.0	13.0	120000	2350	——	——	——	**6SK7** **6SK7-GT**
							250	− 3.0	100	2.6	9.2	800000	2000				
6SL7-GT	High-Mu Twin Triode	C2c	H	6.3	0.3	Each Unit as Class A Amplifier	250	− 2.0	——	——	2.3	44000	1600	70	——	——	**6SL7-GT**
6SN7-GT 6SN7-GTA **6SN7-GTB**	Medium-Mu Twin Triodes	C2c	H H H●	6.3	0.6	Each Unit as Class A Amplifier	90	0	——	——	10.0	6700	3000	20	——	——	6SN7-GT 6SN7-GTA **6SN7-GTB**
							250	− 8.0	——	——	9.0	7700	2600	20	——	——	
						Vertical Deflection Amplifier +	Max. DC Plate Volts, 450 Max. Peak Cathode Ma., 70					Max. Plate Dissipation: 5 watts either plate; 7.5 watts both plates Max. Peak Positive Pulse Plate Volts, 1500					
6SQ7 **6SQ7-GT**	Twin-Diode High-Mu Triodes	B3 C3	H	6.3	0.3	Triode Unit as Class A Amplifier	100	− 1.0	——	——	0.5	110000	925	100	——	——	**6SQ7** **6SQ7-GT**
							250	− 2.0	——	——	1.1	85000	1175	100	——	——	
							300 ✖	Cath. Bias, 3900 ohms.			Grid Resistor,** 0.5 megohm.			Gain per stage = 53			
6SR7	Duplex-Diode Triode	B3	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 9.0	——	——	9.5	8500	1900	16	10000	0.3	**6SR7**
6SS7	Remote-Cutoff Pentode	B3	H	6.3	0.15	Class A Amplifier	100	− 1.0	100	3.1	12.2	120000	1930	——	——	——	**6SS7**
							250	− 3.0	100	2.0	9.0	1.0§	1850				
6ST7	Duplex-Diode Triode	B3	H	6.3	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SR7.										6ST7
6SZ7	Twin-Diode High-Mu Triode	B3	H	6.3	0.15	Triode Unit as Class A Amplifier	100	− 1.0	——	——	0.8	61000	1150	70	——	——	6SZ7
							250	− 3.0	——	——	1.0	58000	1200	70	——	——	
6T4	Medium-Mu Triode	A1	H	6.3	0.225	Oscillator in UHF TV Receivers	Max. DC Plate Volts, 200 Max. DC Cathode Ma., 30							Max. Grid Ma., 8 Max. Plate Dissipation, 3.5 watts			**6T4**
						Class A Amplifier	80	Cath. Bias Res., 150 ohms.			18	——	7000	13	——	——	
6T7-G	Twin-Diode High-Mu Triode	D8	H	6.3	0.15	Triode Unit as Class A Amplifier	250	− 3.0	——	——	1.2	62000	1050	65	——	——	6T7-G
							300 ✖	Cath. Bias, 4580 ohms.			Grid Resistor,** 0.5 megohm			Gain per stage = 40			
6T8 **6T8-A**	Triple-Diode High-Mu Triode	B0a	H H●	6.3	0.45	Triode Unit as Class A Amplifier	100	− 1	——	——	0.8	54000	1300	70	——	——	**6T8** **6T8-A**
							250	− 3			1.0	58000	1200	70			
6U5	Electron-Ray Tube	D4	H	6.3	0.3	Visual Indicator	Plate & Target Supply = 200 volts. Triode Plate Resistor = 1.0 meg. Target Current = 3.0 ma. Grid Bias, −18.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.19 ma. Plate & Target Supply = 250 volts. Triode Plate Resistor = 1.0 meg. Target Current = 4.0 ma. Grid Bias, −22 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.24 ma.										**6U5**
6U7-G	Remote-Cutoff Pentode	D13	H	6.3	0.3	Class A Amplifier	250	− 3.0	100	2.0	8.2	800000	1600	——	——	——	6U7-G
						Mixer Service	250	−10.0	100	——	——	Oscillator Peak Volts = 7.0					
6U8 **6U8-A**	Medium-Mu Triode—Sharp-Cutoff Pentodes	B0a	H H●	6.3	0.45	Triode Unit as Class A Amplifier	150	Cath. Bias	——	——	18	5000	8500	40	Cath. Res., 56 ohms		6U8 **6U8-A**
						Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	5200	——	Cath. Res., 68 ohms		
6V3-A	Half-Wave Rectifier	C0a	H	6.3	1.75	Television Damper Service	Max. Peak Inverse Plate Volts, 6000 (Abs.) Max. Peak Plate Ma., 800 Max. DC Plate Ma., 135					Max. Peak Heater-Cathode Volts					**6V3-A**

*DC component not to exceed −750 volts

For data on RCA Picture Tubes see pages 38 through 47.

Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
6V6 6V6-GT	Beam Power Tubes	C2a C2c	H	6.3	0.45	Single-Tube Class A Amplifier	250	−12.5	250	4.5	45.0	50000	4100	——	5000	4.5	**6V6 6V6-GT**
							315	−13.0	225	2.2	34.0	80000	3750	——	8500	5.5	
						Push-Pull Class AB1 Amplifier	250	−15.0	250	5.0♠	70.0♠	60000	3750	——	10000	10.0†	
							285	−19.0	285	4.0♠	70.0♠	70000	3600	——	8000	14.0†	
6V7-G	Duplex-Diode Triode	D8	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 85.										6V7-G
6W4-GT	Half-Wave Rectifier	C2c	H	6.3	1.2	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 350 Max. Peak Inverse Volts 3500ø, 1250				Max. DC Output Ma., 125 Max. Peak Plate Ma., 600				Min. Total Effect. Supply Imped. per Plate, 145 ohms		**6W4-GT**
6W6-GT	Beam Power Amplifier	C2a	H	6.3	1.2	Vertical Deflection Amplifier	Max. DC Plate Volts, 300 Max. Plate Dissipation, 7.5 watts				Max. Peak Positive-Pulse Plate Volts, 1200 Max. Peak Negative-Pulse Grid Volts, 250						**6W6-GT**
6W7-G	Sharp-Cutoff Pentode	D8	H	6.3	0.15	Class A Amplifier	250	− 3.0	100	0.5	2.0	1.5§	1225	——	——	——	6W7-G
6X4	Full-Wave Rectifier	B1	H	6.3	0.6	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 70 Max. Peak Plate Ma., 210				Total Effect. Supply Imped. per Plate, 520 ohms		**6X4**
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 70 Max. Peak Plate Ma., 210				Min. Value of Input Choke, 10 henries		

One vertical rule before or after type No. = GT or other larger glass type.

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Light Face = Discontinued type.

● Heater has controlled warm-up time for series-string operation.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

▲ Grids # 2 and # 4 are screen. Grid # 1 is signal-input control grid.

« Applied through plate resistor of 250000 ohms.

♥ Applied through plate resistor of 100000 ohms.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

Note 1: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/3 (approx.) of filament voltage.

† Power output is for two tubes at stated plate-to-plate load.

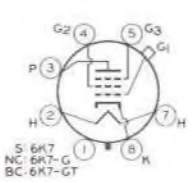
‡ Each unit. § Megohms. ♠ For two tubes.

¶ For signal-input control-grid (# 1); control-grid # 3 bias, −3 volts.

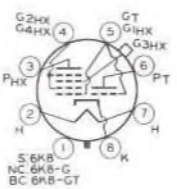
° Both grids connected together; likewise, both plates.

°° For grid of following tube.

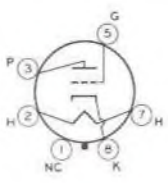
ø For television damper service.



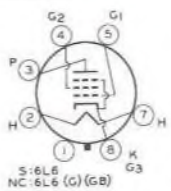
6K7(G)(GT)



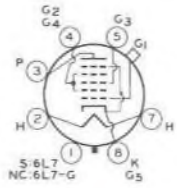
6K8(G)(GT)



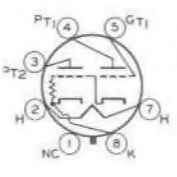
6L5-G 6P5-GT



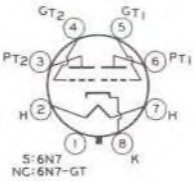
6L6(G)(GB)



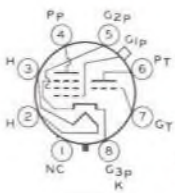
6L7 6L7-G



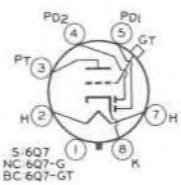
6N6-G



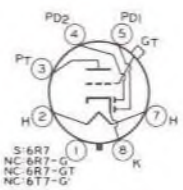
6N7 6N7-GT



6P7-G

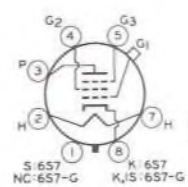


6Q7(G)(GT)

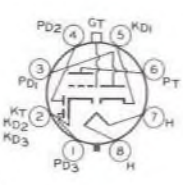


6R7(G)(GT) 6T7-G

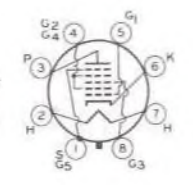

6S4 6S4-A

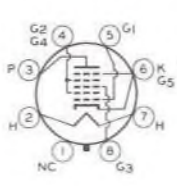


6S7 6S7-G



6S8-GT


6SA7 6SB7-Y



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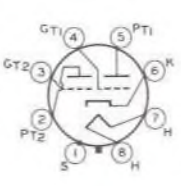
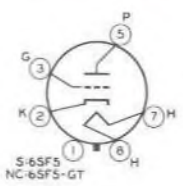
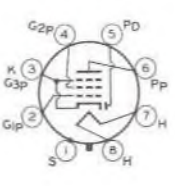
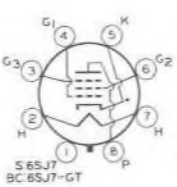

6SC7



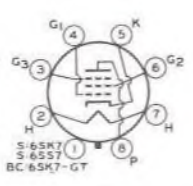
6SF5 6SF5-GT


6SF7


6SG7 6SH7

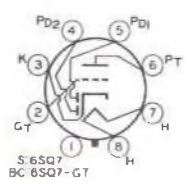


6SJ7 6SJ7-GT

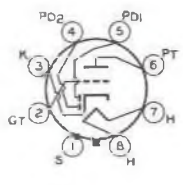


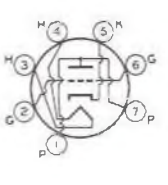
6SK7(GT) 6SS7


6SL7-GT
6SN7(GT)(GTA)(GTB)

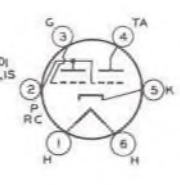


6SQ7 6SQ7-GT


6SR7 6ST7 6SZ7


6T4

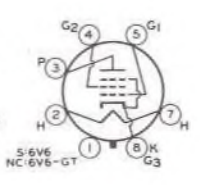
6T8 6T8-A


6U5

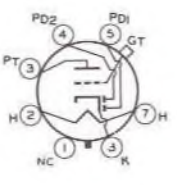
6U7-G 6W7-G


6U8 6U8-A

6V3-A



6V6 6V6-GT



6V7-G

6W4-GT

6W6-GT

6X4

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
6X5 6X5-GT	Full-Wave Rectifiers	C2a C2c	H	6.3	0.6	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 70 Max. Peak Plate Ma., 210			Min. Total Effect. Supply Imped. per Plate, 520 ohms			6X5 6X5-GT
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 70 Max. Peak Plate Ma., 210			Min. Value of Input Choke, 10 henries			
6X8	Triode-Pentode Converter	B0a	H	6.3	0.45	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 ma.			Plate Current, 13 ma. Power Output (Approx.), 0.5 watt						6X8
						Pentode Unit as Mixer‡	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Plate Current, 6.2 ma			Osc. Volts at Mixer Grid No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms Conversion Transconductance, 2100 μmhos						
6Y5	Full-Wave Rectifier	D5	H	6.3	0.8	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. DC Output Ma., 50										6Y5
6Y6-G 6Y6-GA	Beam Power Tube	D11c C11a	H	6.3	1.25	Single-Tube Class A Amplifier	135 200	−13.5 −14.0	135 135	3.5 2.2	58.0 61.0	9300 18300	7000 7100	— —	2000 2600	3.6 6.0	6Y6-G 6Y6-GA
6Y7-G	Twin-Triode Amplifier	D3	H	6.3	0.6	Class B Amplifier	For other characteristics, refer to Type 79.										6Y7-G
6Z5	Full-Wave Rectifier	D5	H	6.3 12.6	0.8 0.4	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 230 Max. DC Output Ma., 60										6Z5
6Z7-G	Twin-Triode Amplifier	D3	H	6.3	0.3	Class B Amplifier	135 180	0 0	—	—	Power Output is for one tube at stated plate-to-plate load.				9000 12000	2.5 4.2	6Z7-G
6ZY5-G	Full-Wave Rectifier	D3	H	6.3	0.3	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 40 Max. Peak Plate Ma., 120			Min. Total Effect. Supply Imped. per Plate, 225 ohms			6ZY5-G
7A4	Medium-Mu Triode	B5	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6J5.										7A4
7A5	Beam Power Tube	C2	H	6.3	0.75	Class A Amplifier	110 125	− 7.5 − 9.0	110 125	3.0 3.3	40.0 44.0	16000 17000	5800 6000	—	2500 2700	1.5 2.2	7A5
7A6	Twin Diode	B5	H	6.3	0.15	Detector Rectifier	Max. AC Voltage per Plate, 150 Volts, RMS				Max. DC Output Current per plate, 8 Ma.						7A6
7A7	Remote-Cutoff Pentode	B5	H	6.3	0.3	Class A Amplifier	For other characteristics, refer to Type 6SK7.										7A7
7A8	Octode Converter	B5	H	6.3	0.15	Converter	100 250	− 3.0 − 3.0	75 100	2.7 3.2	1.8 3.0	650000 700000	Anode-Grid (#2): 250 k max. volts, 4.2 ma. Oscillator-Grid (#1) Resistor ∞. Conversion Transcond., 550 micromhos.				7A8
7AD7	Power Pentode	C2	H	6.3	0.6	Class A Amplifier	300	Cath. Bias	150	7.0	28.0	300000	9500	Cath. Res., 68 ohms			7AD7
7AF7	Medium-Mu Twin Triode	B5	H	6.3	0.3	Each Unit as Class A Amplifier	250 100	−10 Cath. Bias Res., 600 ohms	—	—	9.0 10.8	7600 6500	2100 2600	16 17	— —	— —	7AF7
7AG7	Sharp-Cutoff Pentode	B5	H	6.3	0.15	Class A Amplifier	250	Cath. Bias	250	2.0	6.0	1 meg	4200	Cathode-Bias Resistor, 250 ohms			7AG7
7AH7	Remote-Cutoff Pentode	B5	H	6.3	0.15	Class A Amplifier	250	Cath. Bias	250	1.9	6.8	1 meg.	3300	Cath. Res., 250 ohms			7AH7
7AU7	Medium-Mu Twin-Triode	B0a	H■ H	3.5 7.0	0.6 0.3	Each Unit as Class A Amplifier	100 250	0 − 8.5	— —	— —	11.8 10.5	6500 7700	3100 2200	20 17	— —	— —	7AU7
7B4	High-Mu Triode	B5	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6SF5.										7B4
7B5	Power Amplifier Pentode	C2	H	6.3	0.4	Class A Amplifier	For other characteristics, refer to Type 6K6-GT.										7B5
7B6	Twin-Diode High-Mu Triode	B9	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.										7B6
7B7	Remote-Cutoff Pentode	B5	H	6.3	0.15	Class A Amplifier	250	− 3.0	100	1.7	8.5	750000	1750	—	—	—	7B7
7B8	Pentagrid Converter▲	B5	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.										7B8
7C5	Beam Power Tube	C2	H	6.3	0.45	Class A Amplifier	For other characteristics, refer to Type 6V6-GT.										7C5
7C6	Twin-Diode High-Mu Triode	B5	H	6.3	0.15	Triode Unit as Class A Amplifier	250	− 1.0	—	—	1.3	100000	1000	100	—	—	7C6
7C7	Sharp-Cutoff Pentode	B5	H	6.3	0.15	Class A Amplifier	100 250	− 3.0 − 3.0	100 100	0.4 0.5	1.8 2.0	1.2§ 2.0§	1225 1300	—	—	—	7C7
7E6	Twin-Diode Triode	B5	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6R7.										7E6
7E7	Twin-Diode Remote-Cutoff Pentode	B5	H	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	Cath. Bias	100 100	2.7 1.6	10.0 7.5	150000 700000	1600 1300	Cath. Res., 800 ohms Cath. Res., 330 ohms			7E7
7F7	High-Mu Twin-Triode	B5	H	6.3	0.3	Each Unit as Amplifier	For other characteristics, refer to Type 6SL7-GT.										7F7
7F8	Medium-Mu Twin-Triode	B0b	H	6.3	0.3	Each Unit as Class A Amplifier	250	Cathode-Bias Res., 500 ohms			6.0	—	3300	48	—	—	7F8
7G7	Sharp-Cutoff Pentode	B6	H	6.3	0.45	Class A Amplifier	250	− 2.0	100	2.0	6.0	800000	4500	—	—	—	7G7
7H7	Sharp-Cutoff Pentode	B5	H	6.3	0.3	Class A Amplifier	100 250	− 1.5 Cath. Bias	100 150	2.6 3.2	7.5 10.0	350000 800000	4000 4000	Cath. Bias Res., 180 ohms			7H7
7J7	Triode-Heptode Converter	B5	H	6.3	0.3	Triode Unit as Oscillator	100 250 k	Triode-Grid Resistor, 50000 ohms			3.2 5.0	Triode-Grid & Heptode-Grid Current, 0.3 ma. Triode-Grid & Heptode-Grid Current, 0.4 ma.					7J7
						Heptode Unit as Mixer	100 250	− 3.0 − 3.0	100 100	2.6 2.8	1.5 1.4	500000 1.5§	Conversion Transcond., 280 μmhos Conversion Transcond., 290 μmhos.				
7K7	Twin-Diode-High-Mu Triode	B5	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 2	—	—	2.3	44000	1600	70	—	—	7K7
7L7	RF Amplifier Pentode	B5	H	6.3	0.3	Class A Amplifier	100 250	− 1.0 − 1.5	100 100	2.4 1.5	5.5 4.5	100000 1.0§	3000 3100	—	—	—	7L7
7N7	Medium-Mu Twin-Triode	C2	H	6.3	0.6	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SN7-GT										7N7
7Q7	Pentagrid Converter▲	B5	H	6.3	0.3	Converter	100 250	− 2.0 − 2.0	100 100	8.5 8.5	3.3 3.5	500000 1.0§	Grid #1 Resistor, 20000 ohms. Conversion Transcond., 550 μmhos.				7Q7
7R7	Twin-Diode—Remote-Cutoff Pentode	B5	H	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	− 1.0 − 1.0	100 100	2.2 2.1	5.5 5.7	350000 1.0§	3000 3200	—	—	—	7R7
7S7	Triode-Heptode Converter	B5	H	6.3	0.3	Triode Unit as Oscillator	100 250	Triode-Grid Resistor, 50000 ohms			3.0 5.0	Triode-Grid & Heptode-Grid Current, 0.3 ma. Triode-Grid & Heptode-Grid Current, 0.4 ma.					7S7
						Heptode Unit as Mixer	100 250	− 2.0 − 2.0	100 100	3.0 3.0	1.9 1.8	500000 1.25§	Conversion Transcond., 500 μmhos. Conversion Transcond., 525 μmhos.				
7V7	RF Amplifier Pentode	B5	H	6.3	0.45	Class A Amplifier	300	—	150	3.9	10.0	300000	5800	Cath. Bias Res., 160 ohms			7V7
7W7	RF Amplifier Pentode	B5	H	6.3	0.45	Class A Amplifier	For other characteristics, refer to Type 7V7.										7W7
7X7	Twin Diode—High-Mu Triode	C2	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	0 − 1.0	— —	— —	1.2 1.9	85000 67000	1000 1500	85 100	— —	— —	7X7
7Y4	Full-Wave Rectifier	B5	H	6.3	0.5	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 70 Max. Peak Plate Ma., 180			Min. Total Effect. Supply Imped. per Plate, 150 ohms.			7Y4
7Z4	Full-Wave Rectifier	C2	H	6.3	0.9	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 100 Max. Peak Plate Ma., 300			Min. Total Effec. Supply Imped. per Plate, 75 ohms			7Z4
8AU8	Medium-Mu Triode—Sharp-Cutoff Pentode	B1a	H■	8.4	0.45	Triode Unit as Class A Amplifier	150	Cath. Bias Res., 150 ohms			9.5	7200	5600	40	—	—	8AU8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	125	3.6	17	140000	8000	Cath. Bias Res., 82 ohms			
8AW8-A	High-Mu Triode Sharp-Cutoff Pentode	B1a	H■	8.4	0.45	Triode Unit as Class A Amplifier	200	− 2	—	—	4	17500	4000	70	—	—	8AW8-A
						Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.5	13	400000	9000	Cath. Bias Res., 180 ohms			

For data on RCA Picture Tubes see pages 38 through 47.

Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
8BH8	Medium-Mu Triode—Sharp-Cutoff Pentode	B14	He	8.4	0.45	Triode Unit as Class A Amplifier	150	− 5	—	—	9.5	5150	3300	17	—	—	8BH8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	125	3.4	15	150000	7000	Cath. Bias Res., 82 ohms			
8BN8	Twin Diode—High-Mu Triode	B1a	He	8.4	0.45	Triode Unit as Class A Amplifier	100	− 1	—	—	1.5	21000	3500	75	—	—	8BN8
							250	− 3	—	—	1.6	28000	2500	70	—	—	
8BQ5	Beam Power Tube	C0o	He	8.0	0.6	Class A Amplifier	250	− 7.3	250	5.5	48	38000	11300	—	4500	5.7	8BQ5
						Push-Pull Class AB1 Amplifier	250	Cath. Bias	250	7♠	62♠	Cath. Bias Res., 130 ohms			8000	11†	
							300		300	8♠	72♠	Cath. Bias Res., 130 ohms			8000	17†	
8CG7	Medium-Mu Twin Triode	B1a	He	8.4	0.45	Horizontal Deflection Oscillator	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 400 Max. Peak Cath. Ma., 300 Max. DC Cath. Ma., 20							Max. Dissipation (watts): for either plate, 3.5 for both plates, 5				8CG7
						Vertical Deflection Oscillator	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 400 Max. Peak Cath. Ma., 70 Max. DC Cath. Ma., 20										
8CM7	Dual Triode With Dissimilar Units	B1a	He	8.4	0.45	Vertical Deflection Oscillator (Unit No. 1)	Max. DC Plate Volts, 500 Max. Peak Neg.-Pulse Grid Volts, 200 Max. Peak Cath. Ma., 70 Max. DC Cath. Ma., 15 Max. Plate Dissipation, 1.25 watts										8CM7
						Vertical Deflection Amplifier (Unit No. 2)	Max. DC Plate Volts, 500 Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Peak Neg.-Pulse Grid Volts, 200 Max. Peak Cathode Ma., 70										
8CN7	Twin Diode—High-Mu Triode	B0a	He	4.2	0.45	Triode Unit as Class A Amplifier	100	− 1	—	—	.8	54000	1300	70	—	—	8CN7
			H	8.4	0.225		250	− 3	—	—	1	58000	1200	70	—	—	

One vertical rule before or after type No. = GT or other larger glass type.

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

▫ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

♠ Supply voltage applied through 20000-ohm voltage-dropping resistor.

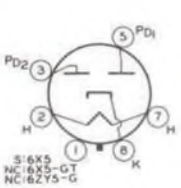
Note 1: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.

§ Megohms. Light Face = Discontinued type.

♣ For two tubes.

† Power output is for two tubes at stated plate-to-plate load.

◆ 50000 ohms.



RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
8CX8	Medium-Mu Triode—Sharp-Cutoff Pentode	B1a	Ha	8.4	0.6	Triode Unit as Class A Amplifier	150	Cath. Bias Res., 150 ohms			9.2	8700	4600	40	—	—	8CX8
						Pentode Unit as Class A Amplifier	200	Cath. Bias.	125	5.2	24	70000	10000	Cath. Bias Res., 68 ohms			
8EB8	High-Mu Triode—Sharp-Cutoff Pentode	B1a	Ha	8.0	0.6	Triode Unit as Class A Amplifier	250	− 2	—	—	2	37000	2700	100	—	—	8EB8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	125	7	25	75000	12500	Cath. Bias Res., 68 ohms			
8EM5	Beam Power Tube	C0a	Ha	8.4	0.6	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 210					Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts					8EM5
						Class A Amplifier	250	−18	250	3	36	—	5100	8.7	—	—	
9AU7	Medium-Mu Twin Triode	B0a	Ha H	4.7 9.4	0.45 0.225	Each Unit as Class A Amplifier	100 250	0 − 8.5	— —	— —	11.8 10.5	6500 7700	3100 2200	20 17	— —	— —	9AU7
9BR7	Twin Diode—High-Mu Triode	B0a	Ha H	4.7 9.4	0.6 0.3	Triode Unit as Class A Amplifier	100 250	Cath. Bias Res., 270 ohms Cath. Bias Res., 200 ohms			3.7 10	15000 10900	4000 4000	60 60	— —	— —	9BR7
9CL8	Medium-Mu Triode—Sharp-Cutoff Tetrode	B0a	Ha	9.5	0.3	Tetrode Unit as Class A Amplifier	125	Cath. Bias Res., 56 ohms			15	5000	8000	40	—	—	9CL8
						Triode Unit as Class A Amplifier	125	− 1	125	4	12	100000	5800	—	—	—	
9U8-A	Medium-Mu Triode—Sharp-Cutoff Pentode	B0a	Ha	9.45	0.3	Triode Unit as Class A Amplifier	150	Cath. Bias Res., 56 ohms			18	5000	8500	40	—	—	9U8-A
						Pentode Unit	250	Cath. Bias	110	3.5	10	400000	5200	—	—	—	
10©	Power Amplifier Triode	E3a	F	7.5	1.25	Class A Amplifier	350 425	−32.0 −40.0	—	—	16.0 18.0	5150 5000	1550 1600	8.0 8.0	11000 10200	0.9 1.6	10©
10C8	High-Mu Triode—Sharp-Cutoff Pentode	B0a	Ha	10.5	0.3	Triode Unit as Class A Amplifier	250	Cath. Bias Res., 390 ohms			7.3	12000	4400	53	—	—	10C8
						Pentode Unit as Class A Amplifier	135	Cath. Bias	135	3.2	11.5	190000	8000	Cath. Bias Res., 100 ohms			
10DE7	Dual Triode With Dissimilar Units	B1a	Ha	9.7	0.6	Vertical Deflection Oscillator (Unit No. 1)	Max. Peak Neg.-Pulse Grid Volts, 400 Max. DC Plate Volts, 330							Max. Peak Cathode Ma., 77 Max. Plate Dissipation, 1.5 watts			10DE7
						Vertical Deflection Amplifier (Unit No. 2)	Max. DC Plate Volts, 275 Max. Peak Positive-Pulse Plate Volts, 1500		Max. Peak Cath. Ma., 175					Max. Plate Dissipation, 7 watts Max. Peak Neg.-Pulse Grid Volts, 250			
11CY7	Dual Triode With Dissimilar Units	B1a	Ha	11	0.45	Vertical Deflection Oscillator (Unit No. 1)	Max. Peak Neg.-Pulse Grid Volts, 400 Max. DC Plate Volts, 350							Max. Plate Dissipation, 1 watt			11CY7
						Vertical Deflection Amplifier (Unit No. 2)	Max. Peak Pos.-Pulse Plate Volts, 1800 Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 120							Max. Plate Dissipation, 3.5 watts Max. DC Plate Volts, 350			
11 12	Detector★ Amplifier Triode	D2a D12	D.C. F	1.1	0.25	Class A Amplifier	90 135	− 4.5 −10.5	—	—	2.5 3.0	15500 15000	425 440	6.6 6.6	—	—	11 12
12A5	Power Amplifier Pentode	D5	H	6.3 12.6	0.6 0.3	Class A Amplifier	100 180	−15.0 −25.0	100 180	3.0 8.0	17.0 45.0	50000 35000	1700 2400	—	4500 3300	0.8 3.4	12A5
12A7	Rectifier-Pentode	D8	H	12.6	0.3	Pentode Unit as Class A Amplifier	135	−13.5	135	2.5	9.0	102000	975	—	13500	0.55	12A7
						Half-Wave Rectifier	Maximum AC Plate Voltage ..... 125 Volts, RMS Maximum DC Output Current ..... 30 Milliamperes										
12A8-GT	Pentagrid Converter ●	C3	H	12.6	0.15	Converter	For other characteristics, refer to Type 6A8.										12A8-GT
12AB5	Beam Power Tube	B1a	H	10.0 to 15.9	0.2 approx. at 12.6 v	Class A Amplifier	250	Cath. Bias	200	1.6	33.5	Cath. Bias Res., 270 ohms			6000	3.3	12AB5
						Push-Pull Class AB1 Amplifier	250	−15.0	250	5.0♠	70.0♠	60000	3750	—	10000	10.0†	
12AC6	Remote-Cutoff Pentode⊙	B0	H	10.0 to 15.9	0.15 approx. at 12.6 v	Class A Amplifier	12.6	—	12.6	.2	.55	500000	736	Grid-No. 1 Supply Volts, 0 Grid-No. 1 Res., 2.2 megohms			12AC6
12AD6	Pentagrid Converter⊙	B0	H	10.0 to 15.9	0.15 approx. at 12.6 v	Converter	12.6	Self-excited	12.6	1.5	0.45	1§	Grid-No. 1 Resistor, 33000 ohms Conversion Transcond., 260 micromhos				12AD6
12AE6	Twin Diode Medium-Mu Triode⊙	B0	H	10.0 to 15.9	0.15 approx. at 12.6 v	Triode Unit as Class A Amplifier	12.6	0	—	—	0.75	15000	1000	15	—	—	12AE6
12AE6-A	Twin Diode—Medium-Mu Triode⊙	B0	H	10.0 to 15.9	0.15 approx. at 12.6 v	Triode Unit as Class A Amplifier	12.6	0	—	—	1	13000	1300	16.7	—	—	12AE6-A
12AF3	Half-Wave Rectifier	C2h	Ha	12.6	0.6	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 Max. Peak Plate Ma., 750							Max. Average Plate Ma., 185 Max. Plate Dissipation, 6 watts			12AF3
12AF6	Remote-Cutoff Pentode⊙	B0	H	10.0 to 15.9	0.15 approx. at 12.6 v	Class A Amplifier	12.6	—	12.6	0.3	0.8	300000	1250	Grid-No. 1 Supply Volts, 0 Grid-No. 1 Res., 2.2 megohms			12AF6
12AH7-GT	Twin Triode	C0b	H	12.6	0.15	Each Unit as Class A Amplifier	100 180	− 3.6 − 6.5	—	—	3.7 7.6	10300 8400	1550 1900	16 16	—	—	12AH7-GT
12AJ6	Twin Diode Medium-Mu Triode⊙	B0	H	10.0 to 15.9	0.15 approx. at 12.6 v	Triode Unit as Class A Amplifier	12.6	Grid-No. 1 Supply Volts, 0 Grid-No. 1 Res., 2.2 megohms			0.75	45000	1200	55	—	—	12AJ6
12AL5	Twin-Diode	A1	H	12.6	0.15	Detector-Rectifier	For other characteristics, refer to Type 6AL5.										12AL5
12AL8	Medium-Mu Triode—Power Tetrode⊙	B1a	H	10.0 to 15.9	0.15 approx. at 12.6 v	Triode Unit as Class A Amplifier	12.6	Grid Bias Volts, −.9 (across 2.2 megohm res.)			.5	13000	1000	13	—	—	12AL8
						Tetrode Unit as Class A Amplifier	Grid-No. 2 (Control Grid) Volts, −.5 (across 2.2 megohm res.) Ampl. Factor (Grid-No. 2 to Plate) 7.2 Grid-No. 1 (Space-Charge Grid) Volts, 12.6 Grid-No. 1 Ma., 75 Plate Ma., 40 Transcond. (Grid-No. 2 to Plate), 15000 μmhos Plate Resistance, 480 ohms										
12AQ5	Beam Power Tube	B1	H	12.6	0.225	Amplifier	For other characteristics, refer to Type 6V6.										12AQ5
12AT6	Twin-Diode High-Mu Triode	B0	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6AT6.										12AT6
12AT7	High-Mu Twin-Triode	B0a	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	100 250	Cath. Res., 270 ohms Cath. Res., 200 ohms			3.7 10.0	15000 10900	4000 5500	60 60	— —	— —	12AT7
12AU6	Sharp-Cutoff Pentode	B0	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6AU6.										12AU6
12AU7 12AU7-A	Medium-Mu Twin-Triodes	B0a	H	6.3 12.6	0.3 0.15	Each Unit As Class A Amplifier	100 250	0 − 8.5	— —	— —	11.8 10.5	6500 7700	3100 2200	20 17	— —	— —	12AU7 12AU7-A
12AV5-GA	Beam Power Tube	D1a	Ha	12.6	0.6	Horizontal Deflection Amplifier	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110					Max. Peak Positive-Pulse Plate Volts, 5500 Max. Plate Dissipation, 11 watts					12AV5-GA
12AV6	Twin-Diode High-Mu Triode	B0	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6AV6.										12AV6
12AV7	Medium-Mu Twin-Triode	B0a	H	6.3 12.6	0.45 0.225	Each Unit as Class A Amplifier	150	Cathode Bias Res., 56 ohms			18	48000	8500	41	Cutoff Volts, −12		12AV7
12AW6	Sharp-Cutoff Pentode	B0	H	12.6	0.15		For other characteristics, refer to Type 6AG5.										12AW6
12AX4-GT 12AX4-GTA	Half-Wave Rectifiers	C2c	H Ha	12.6	0.6	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 Max. Peak Plate Ma., 750 Max. DC Plate Ma., 125					Max. Peak Heater-Cathode Volts: −4400** +300 **DC component must not exceed 900 volts					12AX4-GT 12AX4-GTA
12AX7	High-Mu Twin-Triode	B0a	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	100 250	− 1.0 − 2.0	— —	— —	0.5 1.2	80000 62500	1250 1600	100 100	— —	— —	12AX7
12AY7	Medium-Mu Twin-Triode	B0a	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	250	− 4	—	—	3	25000	1750	44	—	—	12AY7

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
12AZ7	High-Mu Twin-Triode	B0a	H	6.3 12.6	0.45 0.225	Each Unit as Class A Amplifier	100 250	Cath. Bias Res., 270 ohms Cath. Bias Res., 200 ohms			3.7 10.0	15000 10900	4000 5500	60 60	— —	— —	12AZ7
12B4-A	Low-Mu Triode	B1a	H●	6.3 12.6	0.6 0.3	Vertical Deflection Amplifier	Max. DC Plate Volts, 550 Max. Peak Positive-Pulse Plate Volts, 1000 (Abs.) Max. Peak Dissipation, 5.5 Watts						Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 105 Max. Average Cathode Ma., 30				12B4-A
12B8-GT	Triode-Pentode	C10a	H	12.6	0.3	Triode Unit as Class A Amplifier	90	0	—	—	2.8	37000	2400	90	—	—	12B8-GT
						Pentode Unit as Class A Amplifier	90	− 3.0	90	2.0	7.0	200000	1800	—	—	—	
12BA6	Remote-Cutoff Pentode	B0	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6BA6.										12BA6
12BA7	Pentagrid Converter▲	B1a	H	12.6	0.15	Converter	For other characteristics, refer to Type 6BA7.										12BA7

One vertical rule before or after type No. = GT or other larger glass type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Light Face – Discontinued type.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

● Heater has controlled warm-up time for series-string operation.

◎ For use in automobile receivers which operate directly from 12-volt storage batteries.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

▫ Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

✖ Applied through plate resistor of 250000 ohms.

For key to tube dimensions and legend for base and envelope connection diagrams, see page 37.

Note 1: Subscript 1 on class of amplifier service (as AB1) indicates that grid current does not flow during any part of input cycle.

§ Megohms.

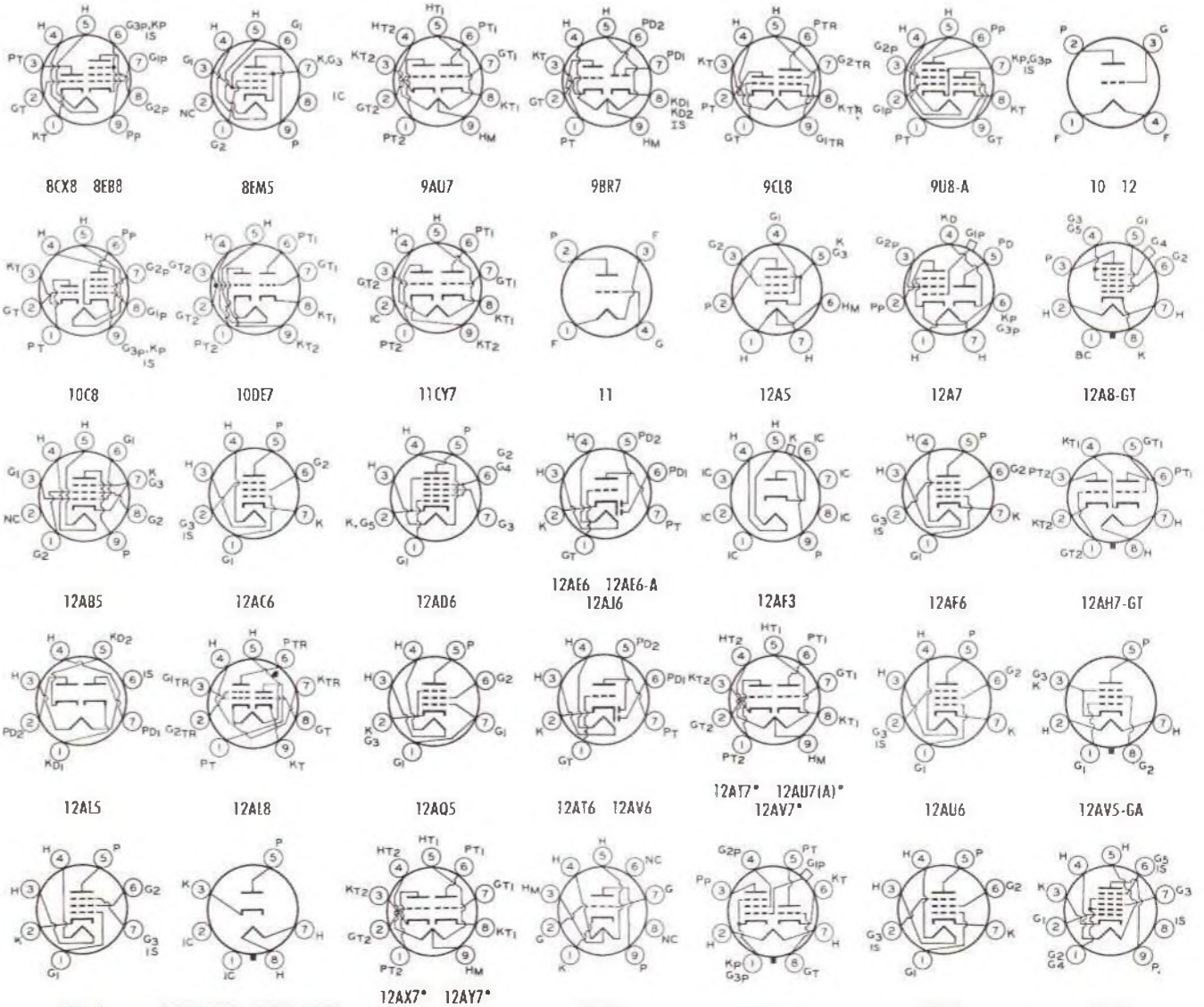
✚ For two tubes.

* Power output is for two tubes at stated plate-to-plate load.

★ For Grid-leak Detection—plate volts, 45; grid return to + filament or to cathode.

** For grid of following tube.

® Superseded by 10-Y. See Power and Gas Tubes Booklet PG-101D.



• Heater for section 2 between pins 4 and 9; for section 1 between pins 5 and 9.

•• On the 5-pin bases, pin 1 as well as pin 4 and 6 is omitted.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
12BD6	Remote-Cutoff Pentode	B8	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6BD6.										12BD6
12BE6	Pentagrid Converter▲	B8	H	12.6	0.15	Converter	For other characteristics, refer to Type 6BE6.										12BE6
12BF6	Twin-Diode Medium-Mu Triode	B8	H	12.6	0.15	Triode Unit as Class A Amplifier	250	− 9.0	——	——	9.5	8500	1900	16	Power Output, 300 milliwatts		12BF6
12BH7 12BH7-A	Medium-Mu Twin-Triodes	B1a	H H●	6.3 12.6	0.6 0.3	Vertical Deflection Amplifier	Max. DC Plate Volts, 450 Max. DC Plate Ma., 20					Absolute Max. Peak Positive-Pulse Plate Volts, 1500 Max. Plate Dissipation (Each Unit), 3.5 watts					12BH7 12BH7-A
12BK5	Beam Power Tube	B1a	H●	12.6	0.6	Class A Amplifier	250	− 5	250	3.5	35	100000	8500	——	6800	3.5	12BK5
12BL6	Remote-Cutoff Pentode⊙	B8	H	10.0 to 15.9	0.15 approx. at 12.6 v	Class A Amplifier	12.6	Grid-No. 1 Supply Volts, 0	12.6	0.5	1.35	500000	1350	Grid-No. 1 and Grid-No. 3 Volts for transcond. of 10 micromhos, −5			12BL6
12BQ6-GTB/ 12CU6	Beam Power Tube	C11	H●	12.6	0.6	Horizontal Deflection Amplifier	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5					Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 11 Watts					12BQ6-GTB/ 12CU6
12BR7	Twin-Diode High-Mu Triode	B8a	H	6.3 12.6	0.45 0.225	Triode Unit as Class A Amplifier	100 250	Cath. Bias Res., 270 ohms Cath. Bias Res., 200 ohms		3.7 10		15000 10900	4000 5500	60 60	——	——	12BR7
12BV7	Sharp-Cutoff Pentode	B1a	H	6.3 12.6	0.6 0.3	Class A Amplifier	250 250	Cath. Bias − 8	150 180	6 ——	27 0.5 ✖	85000 ✖ Minimum Plate Current	13000	Cath. Bias Res., 68 ohms	——	——	12BV7
12BY7 12BY7-A	Sharp-Cutoff Pentodes	B1a	H H●	6.3 12.6	0.6 0.3	Class A Amplifier	250	Cath Bias	180	5.75	26	93000	11000	Cath. Res., 100 ohms			12BY7 12BY7-A
12BZ7	High-Mu Twin Triode	B1a	H	6.3 12.6	0.6 0.3	Each Unit as Class A Amplifier	250	− 2	——	——	2.5	31800	3200	100	——	——	12BZ7
12C8	Twin-Diode Remote-Cutoff Pentode	C1	H	12.6	0.15	Pentode Unit as RF Amplifier	250	− 3.0	125	2.3	10.0	600000	1325	——	——	——	12C8
						Pentode Unit as AF Amplifier	90 ✖ 300 ✖	Cath. Bias, 3500 ohms. Screen Resistor = 1.1 meg. Grid Resistor,** Gain per stage = 55 Cath. Bias, 1600 ohms. Screen Resistor = 1.2 meg. 0.5 megohm. Gain per stage = 79							
12CA5	Beam Power Tube	B1	H●	12.6	0.6	Class A Amplifier	110 125	− 4 − 4.5	110 125	3.5 4.0	32 37	16000 15000	8100 9200	—— ——	3500 4500	1.1 1.5	12CA5
12CN5	Remote-Cutoff Pentode⊙	B1	H	10.0 to 15.9	0.45 approx. at 12.6 v	Class A Amplifier	12.6	——	12.6	3.5	4.5	40000	3800	Grid-No. 1 Supply Volts, 0 Grid-No. 1 Res., 2.2 megohms			12CN5
12CR6	Diode Remote-Cutoff Pentode	B8	H	12.6	0.15	Pentode Unit as Class A Amplifier	250	− 2	100	2.6	9.6	800000	2200	Grid-No. 1 Volts for transcond. of 10 micromhos, −32			12CR6
12CT8	Medium-Mu Triode— Sharp-Cutoff Pentode	B8a	H●	12.6	0.3	Triode Unit as Class A Amplifier	150	Cath. Bias Res., 150 ohms		9		8200	4900	40	——	——	12CT8
						Pentode Unit as Class A Amplifier	200	Cath. Bias	125	3.4	15	150000	7000	Cath. Bias Res., 82 ohms			
12CU5	Beam Power Tube	B1	H●	12.6	0.6	Class A Amplifier	120	− 8	110	4	49	10000	7500	——	2500	2.3	12CU5
12CU5/ 12C5	Beam Power Tube	B1	H●	12.6	0.6	Class A Amplifier	120	− 8	110	4	49	10000	7500	——	2500	2.3	12CU5/ 12C5
12CX6	Sharp-Cutoff Pentode⊙	B8	H	10.0 to 15.9	0.15 approx. at 12.6 v	Class A Amplifier	12.6	Grid-No. 1 Supply Volts, 0	12.6	1.4	3	40000	3100	Grid-No. 1 Volts for Plate Current of 10 μa., −4.5			12CX6
12D4	Half-Wave Rectifier	C2c	H●	12.6	0.6	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 (Abs.) Max. Peak Plate Ma., 900							Max. Average Plate Ma., 155 Max. Plate Dissipation 5.5 watts			12D4
12DB5	Beam Power Tube	B1a	H●	12.6	0.6	Vertical Deflection Amplifier	Max. Peak Pos.-Pulse Plate Volts, 2000 (Abs.) Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 200							Max. Plate Dissipation, 10 watts Max. DC Plate Volts, 300			12DB5
12DL8	Twin-Diode Power Tetrode⊙	B1a	H	10.0 to 15.9	0.55 approx. at 12.6 v	Tetrode Unit as Class A Amplifier	12.6	Grid-No. 2 (Control Grid) Volts, −.5 (across 2.2 megohm resistor) Grid-No. 1 (Space-Charge Grid) Volts, 12.6 Transcond. (Grid-No. 2 to Plate), 15000 μmhos						Ampl. Factor (Grid-No. 2 to Plate) 7.2 Grid-No. 1 Ma., 75 Plate Ma., 40 Plate Resistance, 480 ohms			12DL8
						Diode Units	Diode Plate Ma., with 10 Volts Applied, 3 Ma.										
12DQ6-A	Beam Power Tube	D5	H●	12.6	0.6	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 140					Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 watts					12DQ6-A
12DQ7	Power Pentode	B1a	H● H	6.3 12.6	0.6 0.3	Class A Amplifier	200	Cath. Bias	125	5.6	26	53000	10500	Cath. Bias Res., 68 ohms			12DQ7
12DS7	Twin-Diode Power Tetrode⊙	B1a	H	10.0 to 15.9	0.4 approx. at 12.6 v	Tetrode Unit as Class A Amplifier	12.6	Grid-No. 2 (Control Grid) Volts, −.5 (across 2.2 megohm resistor) Grid-No. 1 (Space-Charge Grid) Volts, 12.6 Transcond. (Grid-No. 2 to Plate), 15000 μmhos						Ampl. Factor (Grid-No. 2 to Plate), 7.2 Grid-No. 1 Ma., 75 Plate Ma., 40 Plate Resistance, 480 ohms			12DS7
						Diode Units	Diode Plate Ma., with 10 Volts Applied, 3 Ma.										
12DT5	Beam Power Tube	B1a	H●	12.6	0.6	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 190					Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 9 watts					12DT5
12DT8	High-Mu Twin Triodes	B8a	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6DT8.										12DT8
12DV8	Twin Diode— Power Tetrode⊙	B1a	H	10.0 to 15.9	0.375 approx. at 12.6 v	Class A Amplifier	Grid-No. 2 (Control Grid) Volts, −1.2 (across 4.7 megohm resistor) Grid-No. 1 (Space-Charge Grid) Volts, 12.6 Transcond. (Grid-No. 2 to Plate), 8500 μmhos							Ampl. Factor (Grid-No. 2 to Plate), 7.6 Grid-No. 1 Ma., 53 Plate Ma., 9 Plate Resistance, 900 ohms			12DV8
12DZ6	Remote-Cutoff Pentode⊙	B8	H	10.0 to 15.9	0.175 approx. at 12.6 v	Class A Amplifier	12.6	− .5*	12.6	2.4	4.5	30000	3800	*Bias voltage developed across 10-megohm resistor			12DZ6
12EA6	Sharp-Cutoff Pentode⊙	B8	H	10.0 to 15.9	0.175 approx. at 12.6 v	Class A Amplifier	12.6	——	12.6	1.4	3.2	32000	3800	Grid-No. 1 Supply Volts, 0 Grid-No. 1 Res., 10 megohms			12EA6
12ED5	Beam Power Tube	B1	H●	12.6	0.45	Class A Amplifier	125	− 4.5	125	7	37	14000	8500	——	4500	1.25	12ED5
12EG6	Pentagrid Amplifier⊙	B8	H	10.0 to 15.9	0.15 approx. at 12.6 v	Class A Amplifier	12.6	− .6†	12.6	2.8	.55	150000	8001	†Between Grid-No. 3 & Plate ‡Bias voltage across res. 2.2 megohms			12EG6
12EH5	Power Pentode	B1	H●	12.6	0.6	Class A Amplifier	110	Cath. Res. 62 ohms	115	11.5	42	11000	14600	——	8000	1.4	12EH5
12EK6	Sharp-Cutoff Pentode⊙	B8	H	10.0 to 15.9	0.19 approx. at 12.6 v	Class A Amplifier	12.6	——	12.6	2	4.4	40000	4200	Grid-No. 1 Supply Volts, 0 Grid-No. 1 Res (Bypassed), 2.2 megohms			12EK6
12EL6	Twin Diode— High-Mu Triode⊙	B8	H	10.0 to 15.9	0.15 approx. at 12.6 v	Class A Amplifier	12.6	0	——	——	.75	45000	1200	55	——	——	12EL6
						Diode Units	Diode Plate Ma., with 10 Volts Applied, 2 Ma.										
12EM6	Diode— Power Tetrode⊙	B1a	H	10.0 to 15.9	0.5 approx. at 12.6 v	Class A Amplifier	12.6	——	12.6	1	6	4000	5000	Grid-No. 1 Res., 2.2 megohms			12EM6
						Diode Unit	Diode Plate Ma., with 10 Volts Applied, 1 Ma.										
12EN6	Beam Power Tube	C2c	H●	12.6	0.6	Vertical Deflection Amplifier	Max. Peak Pos.-Pulse Plate Volts, 1200 Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 175							Max. Plate Dissipation, 7 watts Max. DC Plate Volts, 300			12EN6
12F5-GT	High-Mu Triode	C2c	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6SF5.										12F5-GT

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
12F8	Twin Diode Remote-Cutoff Pentode©	B0a	H	10.0 to 15.9	0.15 approx. at 12.6 v	Pentode Unit as Class A Amplifier	12.6	0	12.6	0.38	1	330000	1000	Grid-No. 1 Volts for trans-cond. of 10 micromhos, −5			12F8
12FK6	Twin Diode—Low-Mu Triode©	B0	H	10.0 to 15.9	0.15 approx. at 12.6 v	Triode Unit as Class A Amplifier	12.6	Grid Supply Volts, 0 Grid Res. (Bypassed), 2.2 megohms			1.3	6200	1200	7.4	——	——	12FK6
12FM6	Twin Diode—Low-Mu Triode©	B0	H	10.0 to 15.9	0.15 approx. at 12.6 v	Triode Unit as Class A Amplifier	12.6	0	——	——	1.8	5600	2400	13.5	——	——	12FM6
						Diode Units	Diode Plate Ma., with 10 Volts Applied, 2 Ma.											
12H6	Twin-Diode	A1b	H	12.6	0.15	Detector Rectifier	For other ratings, refer to Type 6H6.										12H6
12J5-GT	Medium-Mu Triode	C3	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6J5.										12J5-GT
12J7-GT	Sharp-Cutoff Pentode	C3	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6J7.										12J7-GT

One vertical rule before or after type No. = GT or other larger glass type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

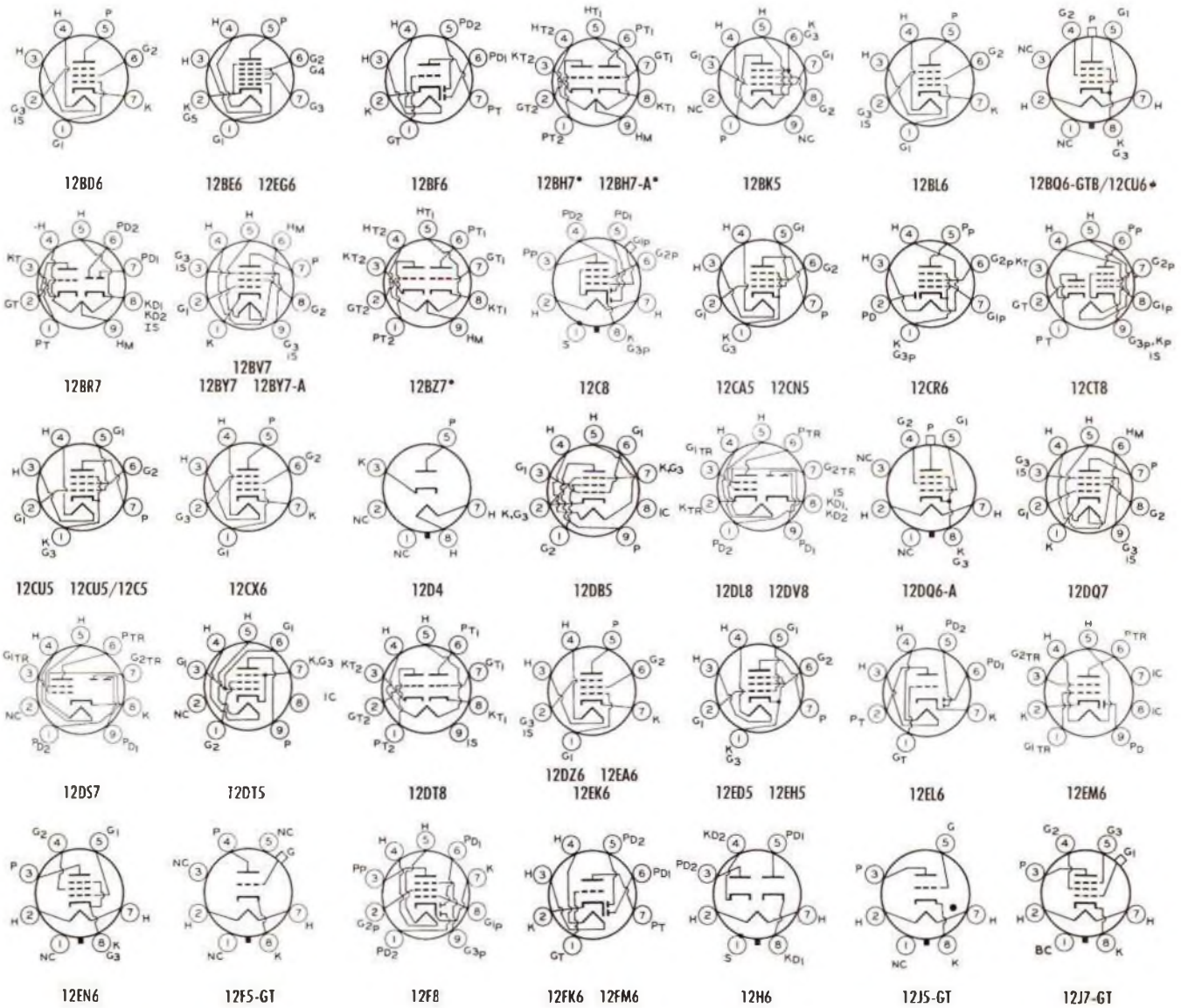
Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/9 (approx.) of filament voltage.

© For use in automobile receivers which operate directly from 12-volt storage batteries.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.



• Heater for section 2 between pins 4 and 9; for section 1 between pins 5 and 9

♦ On the 6-pin bases pin 1 as well as pin 6 is omitted.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma	Plate Current Ma	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
12J8	Twin-Diode Power Tetrode ⊙	B0a	H	10.0 to 15.9	0.325 approx. at 12.6 v	Tetrode Unit as Class A Amplifier	12.6	0	12.6	1.5	12	6000	5300	——	2700	0.02	**12J8**
12K5	Power Tetrode ⊙	B1	H	10.0 to 15.9	0.4 approx. at 12.6 v	Class A Amplifier	DC Plate Volts, 12.6 Grid-No. 2 (Control Grid) Volts, −.5 Plate Resistance, 480 ohms Grid-No. 1 (Space-Charge Grid) Volts, 12.6 Amplification Factor, Grid-No. 2 to Plate, 7.2 DC Plate Ma., 40 Grid-No. 1 Ma., 75 Transcond., Grid-No. 2 to Plate, 15000 μmhos								**12K5**
12K7-GT	Remote-Cutoff Pentode	C3	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6K7.										**12K7-GT**
12K8	Triode-Hexode Converter	C1	H	12.6	0.15	Oscillator-Mixer	For other characteristics, refer to Type 6K8.										**12K8**
12L6-GT	Beam Power Tube	C2c	H●	12.6	0.6	Class A Amplifier	110 200	− 7.5 Cath. Res., 180 ohms	110 125	4.0 2.2	49 46	13000 28000	8000 8000	—— ——	2000 4000	2.1 3.8	**12L6-GT**
12Q7-GT	Twin-Diode High-Mu Triode	C3	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6Q7.										**12Q7-GT**
12R5	Beam Power Tube	B1	H●	12.6	0.6	Vertical Deflection Amplifier	Max. DC Plate Volts, 150 Max. Peak Cathode Ma., 155 Max. Plate Dissipation, 4.5 watts Max. Peak Neg.-Pulse Grid-No. 1 Volts, 150 Max. Grid-No. 2 Volts, 150 Max. Peak Positive-Pulse Plate Volts, 1500 (Abs.)										**12R5**
12S8-GT	Triode-Diode High-Mu Triode	C9a	H	12.6	0.15	Triode Unit as Class A Amplifier	100 250	− 1 − 2	——	——	0.4 0.9	110000 91000	900 1100	100 100	——	——	12S8-GT
12SA7 **12SA7-GT**	Pentagrid Converter▲	B3 C2c	H	12.6	0.15	Mixer	For other characteristics, refer to Type 6SA7.										**12SA7** **12SA7-GT**
12SC7	Twin-Triode Amplifier	B3	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SC7.										**12SC7**
12SF5 12SF5-GT	High-Mu Triode	B3 C2c	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SF5.										**12SF5** 12SF5-GT
12SF7	Diode-Remote-Cutoff Pentode	B3	H	12.6	0.15	Pentode Unit as Amplifier	For other characteristics, refer to Type 6SF7.										**12SF7**
12SG7	Remote-Cutoff Pentode	B3	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SG7.										**12SG7**
12SH7	Sharp-Cutoff Pentode	B3	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SH7.										**12SH7**
12SJ7 12SJ7-GT	Sharp-Cutoff Pentodes	B3 C3	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SJ7.										**12SJ7** 12SJ7-GT
12SK7 **12SK7-GT**	Remote-Cutoff Pentodes	B3 C3	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SK7.										**12SK7** **12SK7-GT**
12SL7-GT	High-Mu Twin-Triode	C2c	H	12.6	0.15	Each Unit as Amplifier	For other characteristics, refer to Type 6SL7-GT.										**12SL7-GT**
12SN7-GT	Medium-Mu Twin-Triode	C2c	H	12.6	0.3	Each Unit as Amplifier	For other characteristics, refer to Type 6J5.										**12SN7-GT**
12SQ7 **12SQ7-GT**	Twin-Diode High-Mu Triode	B3 C3	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.										**12SQ7** **12SQ7-GT**
12SR7 12SR7-GT	Twin-Diode High-Mu Triode	B3 C2c	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SR7.										**12SR7** 12SR7-GT
12U7	Medium-Mu Twin Triode ⊙	B0a	H	10.0 to 15.9	0.15 approx. at 12.6 v	Each Unit as Class A Amplifier	12.6	0	——	——	1	12500	1600	20	——	——	**12U7**
12V6-GT	Beam Power Amplifier	C2c	H	12.6	0.225	Amplifier	For other characteristics, refer to Type 6V6.										**12V6-GT**
12W6-GT	Beam Power Tube	C2c	H●	12.6	0.6	Vertical Deflection Amplifier	Triode Connection Max. DC Plate Volts, 300 Max. DC Cathode Ma., 40 Max. Plate Dissipation, 7.5 watts Max. Peak Pos.-Pulse Plate Volts, 1200 (Abs.)										**12W6-GT**
12X4	Full-Wave Rectifier	B1	H	12.6	0.225	Rectifier	For other characteristics, refer to Type 6X4.										**12X4**
12Z3	Half-Wave Rectifier	D5	H	12.6	0.3	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 235 Max. DC Output Ma., 55 Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 0 ohms; at 150 volts, 30 ohms; at 235 volts, 75 ohms.										12Z3
13DE7	Dual Triode With Dissimilar Units	B1a	H●	13.0	0.45	Vertical Deflection Oscillator (Unit No. 1) Vertical Deflection Amplifier (Unit No. 2)	Max. Peak Neg.-Pulse Grid Volts, 400 Max. DC Plate Volts, 330 Max. Peak Cathode Ma., 77 Max. Plate Dissipation, 1.5 watts Max. Peak Pos.-Pulse Plate Volts, 1500 Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 175 Max. Plate Dissipation, 7 watts Max. DC Plate Volts, 275										**13DE7**
14A4	Medium-Mu Triode	B5	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6J5.										14A4
14A5	Beam Power Tube	B5	H	12.6	0.15	Class A Amplifier	250	−12.5	250	3.5	30	70000	3000	——	7500	2.8	14A5
14A7	Remote-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier	100 250	− 1.0 − 3.0	100 100	4.0 2.6	13.0 9.2	120000 800000	2350 2000	——	——	——	**14A7**
14AF7	Medium-Mu Twin-Triode	B5	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 7AF7.										**14AF7**
14B6	Duplex-Diode High-Mu Triode	B5	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6SQ7.										**14B6**
14B8	Pentagrid Converter ▫	B6	H	12.6	0.15	Converter	For other characteristics, refer to Type 6A8.										14B8
14C5	Beam Power Tube	C2	H	12.6	0.225	Class A Amplifier	180 315	− 8.5 −13	180 225	3.0 2.2	29.0 34.0	50000 77000	3700 3750	——	5500 8500	2 5.5	14C5
14C7	Sharp-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SJ7.										**14C7**
14E6	Twin-Diode Triode	B5	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6SR7.										14E6
14E7	Twin-Diode Remote-Cutoff Pentode	B5	H	12.6	0.15	Pentode Unit as Class A Amplifier	100 250	Cath. Bias	100 100	2.7 1.6	10.0 7.5	150000 700000	1600 1300	Cath. Res., 80 ohms Cath. Res., 330 ohms			14E7
14F7	Twin-Triode Amplifier	B5	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SL7-GT.										**14F7**
14F8	Medium-Mu Twin-Triode	B0b	H	12.6	0.15	Each Unit as Class A Amplifier	250	Cathode-Bias Res., 500 ohms			6.0	——	3300	48	——	——	**14F8**
14H7	Remote-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 7H7.										14H7
14J7	Triode-Heptode Converter	B5	H	12.6	0.15	Converter	For other characteristics, refer to Type 7J7.										14J7
14N7	Twin-Triode Amplifier	C2	H	12.6	0.3	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6J5.										14N7
14Q7	Pentagrid Converter▲	B5	H	12.6	0.15	Converter	For other characteristics, refer to Type 6SA7.										**14Q7**
14R7	Twin-Diode Pentode	B5	H	12.6	0.15	Pentode Unit as Class A Amplifier	For other characteristics, refer to Type 7R7.										**14R7**
15	RF Amplifier Pentode	D9	D.C. H	2.0	0.22	Class A Amplifier	67.5 135	− 1.5 − 1.5	67.5 67.5	0.3 0.3	1.85 1.85	630000 800000	710 750	——	——	——	15
17AX4-GT	Half-Wave Rectifier	C2c	H●	16.8	0.45	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 Max. Peak Plate Ma., 750 Max. DC Plate Ma., 125 Max. Peak Heater-Cathode Volts: −4000•• +300 ••DC component must not exceed 900 volts										**17AX4-GT**

For data on RCA Picture Tubes see pages 38 through 47.

Type	Name	Tube Dimensions	Cathode Type and Rating C.T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	Type
17BQ6-GTB	Beam Power Tube	C11	He	16.8	0.45	Horizontal Deflection Amplifier	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5						Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 11 watts				17BQ6-GTB
17D4	Half-Wave Rectifier	C2c	He	16.8	0.45	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 (Abs.) Max. Peak Plate Ma., 900						Max. Average Plate Ma., 155 Max. Plate Dissipation, 5.5 watts				17D4
17DE4	Half-Wave Rectifier	C10b	He	17.0	0.6	Television Damper Service	Max. Peak Inverse Plate Volts, 5000 Max. Peak Heater Cathode Volts, −5000 (DC Component Not to Exceed 900 Volts) Max. Peak Heater Cathode Volts, +300 (DC Component Not to Exceed 100 Volts) Max. DC Plate Ma., 125						Max. Peak Plate Ma., 1100				17DE4
17DQ6-A	Beam Power Tube	D6	He	16.8	0.45	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 140						Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 watts				17DQ6-A
17H3	Half-Wave Rectifier	B1n	He	17.5	0.3	Television Damper Service	Max. Peak Inverse Plate Volts, 2000 Max. Peak Plate Ma., 450						Max. Average Plate Ma., 75 Max. Plate Dissipation, 5 watts				17H3

One vertical rule before or after type No. = GT or other larger glass type.

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Light Face = Discontinued type.

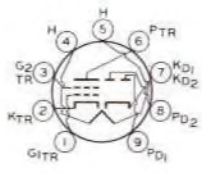
For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ⅛ (approx.) of filament voltage.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

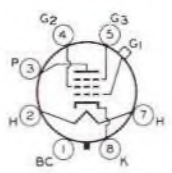
● Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

⊖ For use in automobile receivers which operate directly from 12-volt storage batteries.

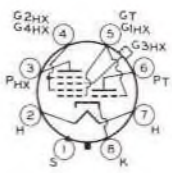


12J8

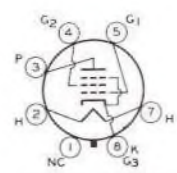
12K5



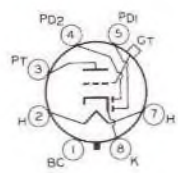
12K7-GT



12K8



12L6-GT 12V6-GT 12W6-GT



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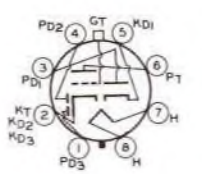
12R5



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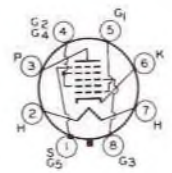

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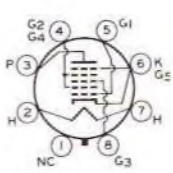

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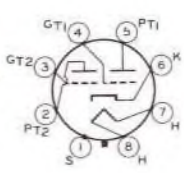

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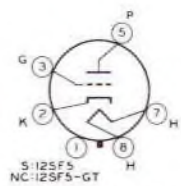
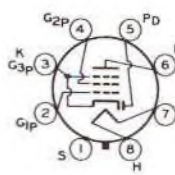


12SF5 12SF5-GT



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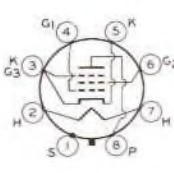
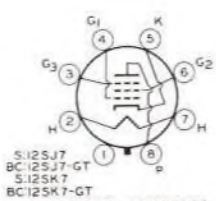
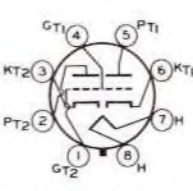


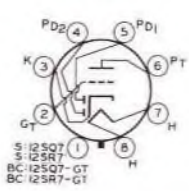
12SG7 12SH7



12SJ7(GT) 12SK7(GT)



12SL7-GT 12SN7-GT



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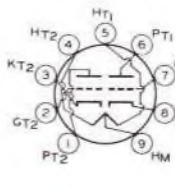
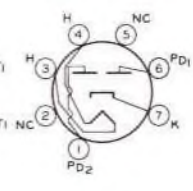
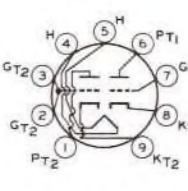


12U7



12X4

12Z3



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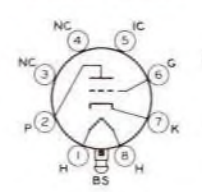

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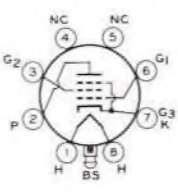
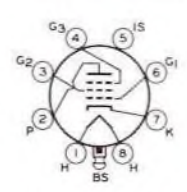


14A5 14C5



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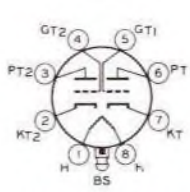
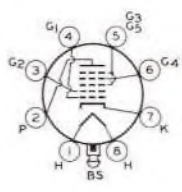


14AF7 14F7 14N7

14B6 14E6



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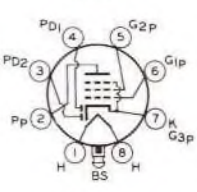
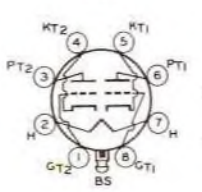


14E7 14R7



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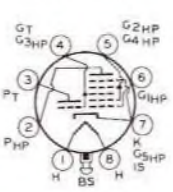

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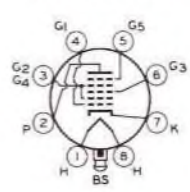

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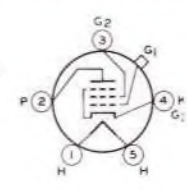

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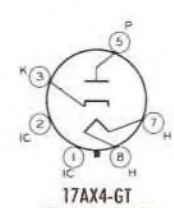
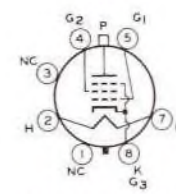
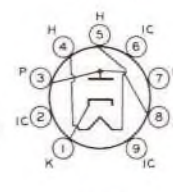


17AX4-GT 17D4* 17DE4*



17BQ6-GTB 17DQ6-A



17H3

* On the 5-pin bases pin 1 is omitted.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
18A5	Beam Power Tube	C5	H●	18.5	0.3	Horizontal Deflection Amplifier	Max. DC Plate Volts, 350 Max. DC Cathode Ma., 90						Max. Peak Pos.-Pulse Plate Volts, 3000 Max. Plate Dissipation, 9 watts				**18A5**
18FW6	Semiremote-Cutoff Pentode	B0	H	18.0	0.1	Class A Amplifier	100	Cath. Bias	100	4.4	11	250000	4400	Cath. Bias Res., 68 ohms			**18FW6**
18FX6	Pentagrid Converter▲	B0	H	18.0	0.1	Converter	100	−1.5	100	6.2	2.3	400000	Grid No. 1 Resistor, 20000 ohms Conversion Transcond., 480 micromhos				**18FX6**
18FY6	Twin Diode—High-Mu Triode	B0	H	18.0	0.1	Triode Unit as Class A Amplifier	100	−1	——	——	.6	77000	1300	100	——	——	**18FY6**
19	Twin-Triode Amplifier	D5	D.C. F	2.0	0.26	Amplifier	For other characteristics, refer to Type 1J6-G.										19
19AU4	Half-Wave Rectifier	C10b	H●	18.9	0.6	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 Max. Peak Plate Ma., 1050						Max. Peak Heater-Cathode Volts: −4500•• +300 Max. DC Plate Ma., 175 ••DC component must not exceed 900 volts				**19AU4**
19BG6-G **19BG6-GA**	Beam Power Tubes	F1 E	H	18.9	0.3	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Plate Current, 110 ma.						Max. Peak Positive-Pulse Plate Volts, 6600 (Abs.) Max. Plate Dissipation, 20 watts				19BG6-G **19BG6-GA**
19J6	Medium-Mu Twin-Triode	B0	H	18.9	0.15	Each Unit as Class A Amplifier	100	Cathode-Bias Res., 50 ohms ♦			8.5	7100	5300	38	——	——	**19J6**
19T8	Triple-Diode High-Mu Triode	B0a	H	18.9	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6T8.										**19T8**
19X8	Triode-Pentode Converter	B0a	H	18.9	0.15		For characteristics, refer to Type 6X8.										**19X8**
20	Power Amplifier Triode	D1	D.C. F	3.3	0.132	Class A Amplifier	90 135	−16.5 −22.5	——	——	3.0 6.5	8000 6300	415 525	3.3 3.3	9600 6500	0.045 0.110	20
22	RF Amplifier Tetrode	E1	D.C. F	3.3	0.132	Screen-Grid RF Amplifier	135 135	−1.5 −1.5	45 67.5	0.6* 1.3*	1.7 3.7	725000 325000	375 500	——	——	——	22
24-A	RF Amplifier Tetrode	E1	H	2.5	1.75	Screen-Grid RF Amplifier	180 250	−3.0 −3.0	90 90	1.7* 1.7*	4.0 4.0	400000 600000	1000 1050	——	——	——	**24-A**
25A6 25A6-GT	Power Amplifier Pentodes	C2a C3	H	25.0	0.3	Class A Amplifier	95 160	−15.0 −18.0	95 120	4.0 6.5	20.0 33.0	45000 42000	2000 2375	——	4500 5000	0.9 2.2	25A6 25A6-GT
25A7-GT	Rectifier Pentode	C3	H	25.0	0.3	Pentode Unit as Class A Amplifier	100	−15.0	100	4.0	20.5	50000	1800	——	4500	0.77	25A7-GT
						Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 75 Max. Peak Plate Ma., 450		Min. Total Effect. Supply Impedance, 15 ohms.				
25AC5-GT	High-Mu Power Amplifier Triode	C3	H	25.0	0.3	Dynamic-Coupled Amp. With Type 6AE5-GT Driver	110	Bias for both 25AC5-GT and 6AE5-GT developed in circuit. Average Plate Current of Driver = 7 milliamperes. Average Plate Current of 25AC5-GT = 45 milliamperes.							2000	2.0	25AC5-GT
25AV5-GA	Beam Power Tube	D1a	H	25.0	0.3	Horizontal Deflection Amplifier	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110						Max. Peak Pos.-Pulse Plate Volts, 5500 (Abs.) Max. Plate Dissipation, 11 watts				**25AV5-GA**
25AX4-GT	Half-Wave Rectifier	C2c	H	25	0.3	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 Max. Peak Plate Ma., 750 Max. DC Plate Ma., 125						Max. Peak Heater-Cathode Volts: −4400 +300				**25AX4-GT**
25B5	Direct-Coupled Power Amplifier	D10	H	25.0	0.3	Amplifier	For other characteristics, refer to Type 25N6-G.										25B5
25B6-G	Power Amplifier Pentode	D11a	H	25.0	0.3	Class A Amplifier	105 200	−16.0 −23.0	105 135	2.0 1.8	48.0 62.0	15500 18000	4800 5000	——	1700 2500	2.4 7.1	25B6-G
25B8-GT	Triode-Pentode	C3	H	25.0	0.15	Triode Unit as Class A Amplifier	100	−1.0	——	——	0.6	75000	1500	112	——	——	25B8-GT
						Pentode Unit as Class A Amplifier	100	−3.0	100	2.0	7.6	185000	2000	——	——	——	
25BK5	Beam Power Tube	B1a	H	25.0	0.3	Class A Amplifier	250	−5	250	3.5	35	100000	8500	——	6500	3.5	**25BK5**
25BQ6-GT **25BQ6-GTB/25CU6**	Beam Power Tubes	C11	H	25.0	0.3	Horizontal Deflection Amplifier	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5						Absolute Max. Peak Positive-Pulse Plate Volts, 6000 Max. Plate Dissipation, 11 Watts				25BQ6-GT **25BQ6-GTB/25CU6**
25C5	Beam Power Tube	B1	H	25.0	0.3	Class A Amplifier	120	−8	110	4	49	10000	7500	——	2500	2.3	**25C5**
25C6-G	Beam Power Tube	D11c	H	25.0	0.3	Class A Amplifier	For other characteristics, refer to Type 6Y6-G.										25C6-G
25CA5	Beam Power Tube	B1	H	25.0	0.3	Class A Amplifier	110 125	−4 −4.5	110 125	3.5 4	32 37	16000 15000	8100 9200	——	3500 4500	1.1 1.5	**25CA5**
25CD6-GA **25CD6-GB**	Beam Power Tubes	F1 E0	H● H●	25	0.6	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Plate Ma., 170						Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 Watts				**25CD6-GA** **25CD6-GB**
25DN6	Beam Power Tube	E	H●	25.0	0.6	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 200						Max. Peak Positive-Pulse Plate Volts, 6600 (Abs.) Max. Plate Dissipation, 15 watts				**25DN6**
25EH5	Power Pentode	B1	H	25.0	0.3	Class A Amplifier	110	Cath. Res., 62 ohms	115	11.5	42	11000	14600	——	8000	1.4	**25EH5**
25L6	Beam Power Tube	C2a	H	25.0	0.3	Amplifier	110 200	−7.5 −8.0	110 110	4.0 2.0	49.0 50.0	13000 30000	9000 9500	——	2000 3000	2.1 4.3	**25L6**
25L6-GT	Beam Power Tube	C2c	H	25.0	0.3	Amplifier	For other characteristics, refer to Type 50L6-GT.										**25L6-GT**
25N6-G	Direct-Coupled Power Amplifier	D9	H	25.0	0.3	Class A Amplifier	Output Triode: Plate Volts, 180; Plate Ma., 46; Load, 4000 ohms. Triode: Plate Volts, 100; Grid Volts, 0; A-F Signal Volts (Peak), 29.7; Plate Ma., 5.8									3.8	25N6-G
25W4-GT	Half-Wave Rectifier	C2c	H	25.0	0.3	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 350 Max. Peak Inverse Volts, 2000 ♁, 1250						Max. DC Output Ma., 125 Min. Total Effect. Supply Max. Peak Plate Ma., 600 Imped. per Plate, 145 ohms				**25W4-GT**
25Y5	Rectifier-Doubler	D5	H	25.0	0.3	Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 75						Min. Total Effective Plate-Supply Impedance per Plate, 0 ohms				25Y5
25Z5	Rectifier-Doubler	D5	H	25.0	0.3	Rectifier-Doubler	For other ratings, refer to Type 25Z6.										**25Z5**
25Z6 **25Z6-GT**	Vacuum Rectifier-Doublers	C2a C2c	H	25.0	0.3	Voltage Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 75						Min. Total Effective Plate-Supply Impedance: Half-Wave, 30 ohms; Full-Wave, 15 ohms.				25Z6
						Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 75						Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.				**25Z6-GT**
26	Amplifier Triode	D12a	F	1.5	1.05	Class A Amplifier	90 180	−7.0 −14.5	——	——	2.9 6.2	8900 7300	935 1150	8.3 8.3	——	——	26
27	Detector★ Amplifier Triode	D5	H	2.5	1.75	Class A Amplifier	135 250	−9.0 −21.0	——	——	4.5 5.2	9000 9250	1000 975	9.0 9.0	——	——	**27**
						Bias Detector	250	−30.0 approx.	Plate current to be adjusted to 0.2 milliampere with no signal.								
30	Medium-Mu Triode	D5	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1H4-G.										30
31	Power Amplifier Triode	D5	D.C. F	2.0	0.13	Class A Amplifier	135 180	−22.5 −30.0	——	——	8.0 12.3	4100 3600	925 1050	3.8 3.8	7000 5700	0.185 0.375	31
32	RF Amplifier Tetrode	E1	D.C. F	2.0	0.06	Screen-Grid RF Amplifier	135 180	−3.0 −3.0	67.5 67.5	0.4 0.4	1.7 1.7	950000 1.0+§	640 650	——	——	——	32
						Bias Detector	180♥	−6.0 approx.	67.5	——	Plate current to be adjusted to 0.2 milliampere with no signal.						
32ET5	Beam Power Tube	B1	H	32.0	0.1	Class A Amplifier	110	−7.5	110	2.8	30	21500	5500	——	2800	1.2	**32ET5**
32L7-GT	Rectifier-Beam Power Amplifier	C3	H	32.5	0.3	Amplifier Unit as Class A Amplifier	90 90	−5.0 −7.0	90 90	3.0 2.0	38.0 27.0	15000 17000	6000 4800	——	2600 2600	0.8 1.0	32L7-GT
						Half-Wave Rectifier	Maximum AC Plate Voltage ..... 125 Volts, RMS Maximum DC Output Current ..... 60 Milliamperes.										

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C.T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
33	Power Amplifier Pentode	D12a	D.C. F	2.0	0.26	Class A Amplifier	180	−18.0	180	5.0	22.0	55000	1700	——	6000	1.5	33
34	Remote-Cutoff Pentode	E1	D.C. F	2.0	0.06	Screen-Grid RF Amplifier	135 180	−3.0 min.	67.5 67.5	1.0 1.0	2.8 2.8	600000 1.0§	600 620	——	——	——	34
35	Remote-Cutoff Tetrode	E1	H	2.5	1.75	Screen-Grid RF Amplifier	180 250	−3.0 min.	90 90	2.5* 2.5*	6.3 6.5	300000 400000	1020 1050	——	——	——	35
35A5	Beam Power Tube	C2	H	35.0	0.15	Single-Tube Class A Amplifier	For other characteristics, refer to Type 35L6-GT.										35A5
35B5	Beam Power Tube	B1	H	35.0	0.15	Class A Amplifier	For other characteristics, refer to Type 35C5.										35B5
35C5	Beam Power Tube	B1	H	35.0	0.15	Class A Amplifier	110	−7.5	110	3.0	40.0	13000	5800	——	2500	1.5	35C5
35L6-GT	Beam Power Tube	C2c	H	35.0	0.15	Single-Tube Class A Amplifier	110 200	−7.5 △	110 125	3.0 2.0	40.0 43.0	14000 34000	5800 6100	——	2500 5000	1.5 3.0	35L6-GT
35W4	Half-Wave Rectifier Heater Tap for Pilot	B1	H Pilot Between Pins 4 and 6	35.0	0.15	With Capacitive-Input Filter	Max AC Plate Volts (RMS), 117. Min. Total Effect. Plate-Supply Impedance, 15 ohms. Max. DC Output Ma.: With Pilot and No Shunt Res., 60; With Pilot and Shunt Res., 90; Without Pilot, 100.										35W4
35Y4	Half-Wave Rectifier Heater Tap for Pilot	C2	H Pilot Between Pins 1 and 4	35.0	0.15	With Capacitive-Input Filter	For other characteristics, refer to Type 35W4.										35Y4

One vertical rule before or after type No. = GT or other larger glass type.

Two vertical rules before or after type No. = Metal type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by 1/2 (approx.) of filament voltage.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal input control grid.

♥ Applied through plate resistor of 100000 ohms.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

Light Face = Discontinued type.

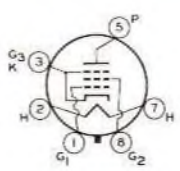
§ Megohms.

* Maximum.

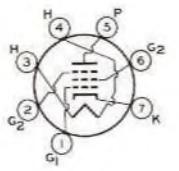
= Value is for both units operating at the specified conditions.

★ For Grid-leak Detection — plate volts, 45; grid return to + filament or to cathode.

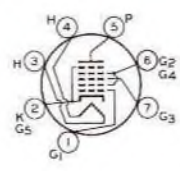
◇ For television damper service.



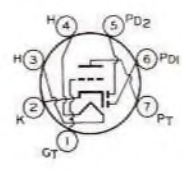
18A5



18FW6



18FX6



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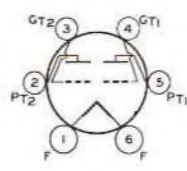

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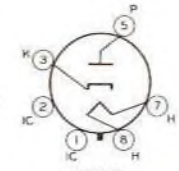
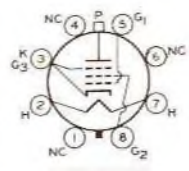


19AU4 25AX4-GT 25W4-GT



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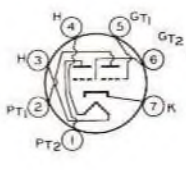
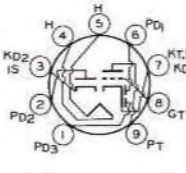
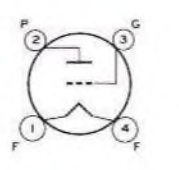


19J6



19T8

19X8



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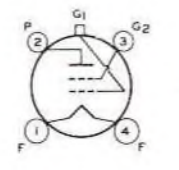
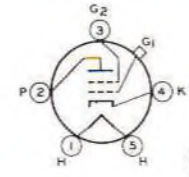
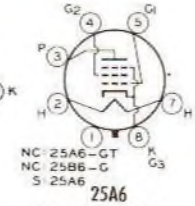


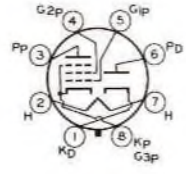
22 32



24-A 35



25A6 25A6-GT 25B6-G



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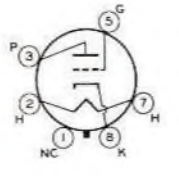
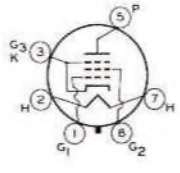
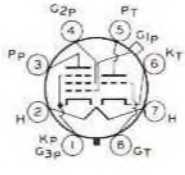


25AC5-GT

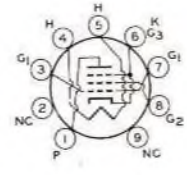


25AV5-GA

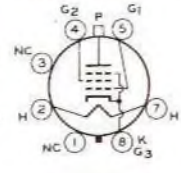
25B5



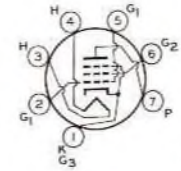
25B8-GT



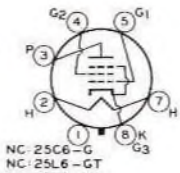
25BK5



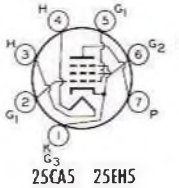
25BQ6-GT◆ 25BQ6-GTB/25CU6◆



25C5

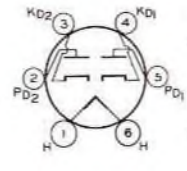


NC: 25C6-G
NC: 25L6-GT
NC: 35L6-GT
S: 25L6 35L6
25C6-G 25L6(GT)

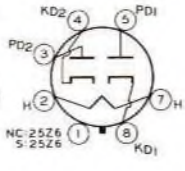


25CA5 25EH5
32ET5 35C5

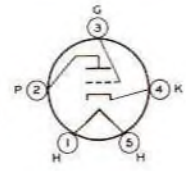
25N6-G



25Y5 25Z5



25Z6 25Z6-GT



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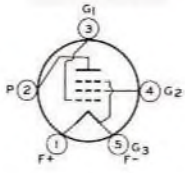
32L7-GT



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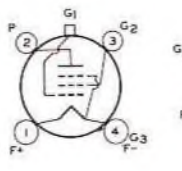

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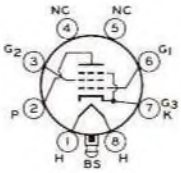
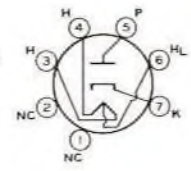
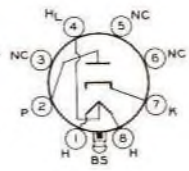


35A5

35B5



35W4



35Y4

◆ On the 6-pin bases pin 1 as well as pin 6 is omitted.

✖ On the 5-pin bases pins 1, 4, and 6 are omitted.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating C.T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
35Z3	Half-Wave Rectifier	C2	H	35.0	0.15	With Capacitive-Input Filter	For other ratings, refer to Type 35Z4-GT										**35Z3**
35Z4-GT	Half-Wave Rectifier	C2c	H	35.0	0.15	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 235 Max. DC Output Ma., 100				Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms.						**35Z4-GT**
35Z5-GT	Half-Wave Rectifier Heater Tap for Pilot	C2c Pilot Between Pins 2 and 3	H	35.0	0.15	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 235. Min. Total Effect. Plate-Supply Imped.: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms. Max. DC Output Ma.: With Pilot and No Shunt Res., 60; With Pilot and Shunt Res., 90; Without Pilot, 100.										**35Z5-GT**
36	RF Amplifier Tetrode	D9	H	6.3	0.3	Screen-Grid RF Amplifier	100 250	− 1.5 − 3.0	55 90	— 1.7*	1.8 3.2	550000 550000	850 1080	—	—	—	36
						Bias Detector	250	− 8.0	90	Grid-bias values are approx. Plate Ma. to be set to 0.1 with no signal.							
36AM3	Half-Wave Rectifier	B1	H	36.0	0.1	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 117 Max. DC Output Ma., 82				Min. Total Effec. Plate-Supply Impedance, 45 ohms						**36AM3**
37	Detector★ Amplifier Triode	D5	H	6.3	0.3	Class A Amplifier	90 250	− 6.0 −18.0	—	—	2.5 7.5	11500 8400	800 1100	9.2 9.2	—	—	37
						Bias Detector	250	−28.0	Grid-bias values are approx. Plate Ma. to be adjusted to 0.2 with no signal.								
38	Power Amplifier Pentode	D9	H	6.3	0.3	Class A Amplifier	100 250	− 9.0 −25.0	100 250	1.2 3.8	7.0 22.0	140000 100000	875 1200	—	15000 19000	0.27 2.50	38
39/44	Remote-Cutoff Pentode	D9	H	6.3	0.3	Class A Amplifier	90 250	− 3.0 min.	90 90	1.6 1.4	5.6 5.8	400000 1.0§	1000 1050	—	—	—	39/44
40	Medium-Mu Triode	D12a	D.C. F	5.0	0.25	Class A Amplifier	135■ 180■	− 1.5 − 3.0	—	—	0.2 0.3	150000 150000	200 200	30 30	—	—	40
41	Power Amplifier Pentode	D5	H	6.3	0.4	Amplifier	For other characteristics, refer to Type 6K6-GT										**41**
42	Power Amplifier Pentode	D12a	H	6.3	0.7	Amplifier	For other characteristics, refer to Type 6F6-G.										**42**
43	Power Amplifier Pentode	D12a	H	25.0	0.3	Amplifier	For other characteristics, refer to Type 25A6.										**43**
45	Power Amplifier Triode	D12a	F	2.5	1.5	Class A Amplifier	180 275	−31.5 −56.0	—	—	31.0 36.0	1650 1700	2125 2050	3.5 3.5	2700 4600	0.82 2.00	**45**
45Z3	Half-Wave Rectifier	D0	H	45.0	0.075	Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 65 Max. Peak Plate Ma., 330				Min. Total Effect. Plate-Supply Imped., 15 ohms.		45Z3
45Z5-GT	Half-Wave Rectifier Heater Tap for Pilot	C2c Pilot Between Pins 2 and 3	H	45.0	0.15	With Capacitive-Input Filter	For other ratings, refer to Type 35Z5-GT.										45Z5-GT
46	Dual-Grid Power Amplifier	E3a	F	2.5	1.75	Class A Amplifier□	250	−33.0	—	—	22.0	2380	2350	5.6	6400	1.25	46
						Class B Amplifier◆	300	0	—	—	8.0◆	—	—	—	5200	16.0◆	
47	Power Amplifier Pentode	E3a	F	2.5	1.75	Class A Amplifier	250	−16.5	250	6.0	31.0	60000	2500	—	7000	2.7	**47**
48	Power Amplifier Tetrode	E3a	D.C. H	30.0	0.4	Class A Amplifier	125	−20.0	100	9.5	56.0	—	3900	—	1500	2.5	48
49	Dual-Grid Power Amplifier	D12a	D.C. F	2.0	0.12	Class A Amplifier□	135	−20.0	—	—	6.0	4175	1125	4.7	11000	0.17	49
						Class B Amplifier◆	180	0	—	—	4.0◆	—	—	—	12000	3.5◆	
50	Power Amplifier Triode	F1a	F	7.5	1.25	Class A Amplifier	300 450	−54.0 −84.0	—	—	35.0 55.0	2000 1800	1900 2100	3.8 3.8	4600 4350	1.6 4.6	50
50A5	Beam Power Tube	C2	H	50.0	0.15	Class A Amplifier	For other characteristics, refer to Type 50L6-GT.										**50A5**
50B5	Beam Power Tube	B1	H	50.0	0.15	Class A Amplifier	For other characteristics, refer to Type 50C5.										**50B5**
50C5	Beam Power Tube	B1	H	50.0	0.15	Class A Amplifier	120	− 8	110	4.0	49.0	10000	7500	—	2500	2.3	**50C5**
50C6-G	Beam Power Tube	D11c	H	50.0	0.15	Single-Tube Class A Amplifier	135 200	−13.5 −14.0	135 135	3.5 2.2	58.0 61.0	9300 18300	7000 7100	—	2000 2600	3.6 6.0	50C6-G
50DC4	Half-Wave Rectifier Heater Tap for Pilot	B1 Pilot Lamp Between Pins 4 and 6	H	50.0	0.15	With Capacitive Input Filter	For operation with panel lamp: Filter-Input Capacitor, 40 μf AC Plate-Supply Volts (RMS), 117				DC Output Ma., 100 Panel Lamp Shunting Res., 75 ohms Min. Total Effective Plate-Supply Impedance, 15 ohms						**50DC4**
50EH5	Power Pentode	B1	H	50.0	0.15	Class A Amplifier	110	Cath Res., 62 ohms	115	11.5	42	11000	14600	—	8000	1.4	**50EH5**
50L6-GT	Beam Power Tube	C2c	H	50.0	0.15	Single-Tube Class A Amplifier	100 200	− 7.5 △	110 125	4.0 2.2	49.0 46.0	13000 28000	8000 8000	—	2000 4000	2.1 3.8	**50L6-GT**
50X6	Rectifier-Doubler	C2	H	50.0	0.15	Rectifier-Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 75				Min. Total Effective Plate-Supply Impedance: Half-Wave, 30 ohms; Full-Wave, 15 ohms.						**50X6**
						Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 75				Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.						
50Y6-GT	Rectifier-Doubler	C2c	H	50.0	0.15	Rectifier-Doubler	For other ratings, refer to Type 25Z6.										**50Y6-GT**
50Y7-GT	Rectifier-Doubler Heater Tap for Pilot	C2c Pilot Lamp Between Pins 6 and 7	H	50.0	0.15	Voltage Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output ma., 65				Min. Total Effective Plate-Supply Impedance per Plate, 15 ohms						**50Y7-GT**
						Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 65				Min. Total Effec. Plate-Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms						
50Z7-G	Rectifier-Doubler Heater Tap for Pilot	D3 Pilot Lamp Between Pins 6 and 7	H	50.0	0.15	Voltage Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 65				Min. Total Effective Plate-Supply Impedance: 15 ohms.						50Z7-G
						Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 65				Min. Total Effective Plate-Supply Impedance per Plate: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms.						
53	Twin-Triode Amplifier	D12a	H	2.5	2.0	Amplifier	For other characteristics, refer to Type 6N7-GT.										53
55	Duplex-Diode Triode	D9	H	2.5	1.0	Triode Unit as Amplifier	For other characteristics, refer to Type 85.										55
56	Medium-Mu Triode★	D5	H	2.5	1.0	Amplifier Detector	For other characteristics, refer to Type 76.										56
57	Sharp-Cutoff Pentode	D13a	H	2.5	1.0	Amplifier Detector	For other characteristics, refer to Type 6J7.										57
58	Remote-Cutoff Pentode	D13a	H	2.5	1.0	Amplifier Mixer	For other characteristics, refer to Type 6U7-G.										58
59	Triple-Grid Power Amplifier	E3a	H	2.5	2.0	Triode* Class A Amplifier	250	−28.0	—	—	26.0	2300	2600	6.0	5000	1.25	59
						Pentode** Class A Amplifier	250	−18.0	250	9.0	35.0	55000	2500	—	6000	3.0	
70L7-GT	Rectifier-Beam Power Amplifier	G10	H	70.0	0.15	Amplifier Unit as Class A Amplifier	110	− 7.5	110	3.0	40.0	15000	7500	—	2000	1.8	**70L7-GT**
						Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 70 Max. Peak Plate Ma., 420				Min. Total Effect. Plate-Supply Imped., 15 ohms		
71-A	Power Amplifier Triode	D12a	F	5.0	0.25	Class A Amplifier	90 180	−16.5 −40.5	—	—	10.0 20.0	2170 1750	1400 1700	3.0 3.0	3000 4800	0.125 0.790	71-A
75	Twin-Diode High-Mu Triode	D9	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6SQ7.										**75**
76	Detector Amplifier Triode★	D5	H	6.3	0.3	Class A Amplifier	250	−13.5	—	—	5.0	9500	1450	13.8	—	—	76
						Bias Detector	250	− 20.0 approx.	—	—	Plate current to be adjusted to 0.2 milliampere with no signal.						
77	Triple-Grid Detector Amplifier	D9	H	6.3	0.3	Class A Amplifier	250	− 3.0	100	0.5	2.3	1.0+§	1250	—	—	—	77
						Bias Detector	250	− 1.95	50	Cathode current 0.65 ma.	—		Plate Resistor, 250000 ohms. Grid Resistor,** 250000 ohms.				

For data on RCA Picture Tubes see pages 38 through 47.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma	Plate Current Ma.	● AC Plate Resistance Ohms	Transconductance (Cnd-Plate) Mmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
78	Remote-Cutoff Pentode	D4	H	6.3	0.3	Amplifier Mixer	For other characteristics, refer to Type 6K7.										78
79	Twin-Triode Amplifier	D9	H	6.3	0.6	Class B Amplifier	180 250	0 0	——	——	Power Output is for one tube at stated plate-to-plate load.				7000 14000	5.5 8.0	79
80	Full-Wave Rectifier	D12a	F	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375			Min. Total Effect. Supply Imped. per Plate, 50 ohms			80
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375			Min. Value of Input Choke, 10 henries			
81	Half-Wave Rectifier	F1a	F	7.5	1.25	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 700 Max. Peak Inverse Volts, 2000				Max. DC Output Ma., 85 Max. Peak Plate Ma., 300						81
82	Full-Wave▶ Rectifier	D12a	F	2.5	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 115 Max. Peak Plate Ma., 600			Min. Total Effect. Supply Imped. per Plate, 50 ohms.			82
83	Full-Wave▶ Rectifier	E3a	F	5.0	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 1000			Min. Total Effect. Supply Imped. per Plate, 50 ohms.			83
83-v	Full-Wave Rectifier	D12a	H	5.0	2.0	For other ratings, refer to Type 5V4-G.											83-v
84/6Z4	Full-Wave Rectifier	D5	H	6.3	0.5	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 60 Max. Peak Plate Ma., 180			Min. Total Effect. Supply Imped. per Plate, 150 ohms.			84/6Z4
						With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 60 Max. Peak Plate Ma., 180			Min. Value of Input Choke, 10 henries			

Light Face = Discontinued type.

One vertical rule before or after type No. = GT or other larger glass type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Grid # 2 tied to plate.

■■ Grid # 1 is control grid. Grid # 2 is screen. Grid # 3 tied to cathode.

▪ Grid # 1 is control grid. Grids # 2 and # 3 tied to plate.

◆ Grids # 1 and # 2 tied together.

✖ Applied through plate resistor of 250000 ohms.

§ Megohms.

- Maximum.

♠ For two tubes.

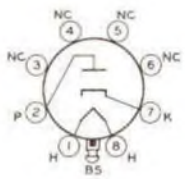
‡ Power output is for two tubes at stated plate-to-plate load.

★ For Grid-leak Detection — plate volts, 45; grid return to + filament or to cathode.

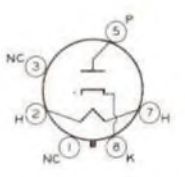
** For grid of following tube.

▶ Mercury-Vapor Type.

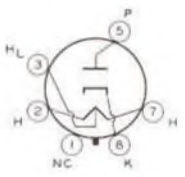
For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.



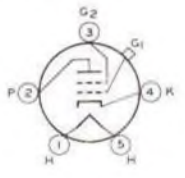
35Z3



35Z4-GT



35Z5-GT



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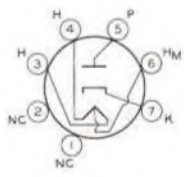
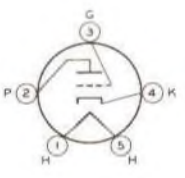


36AM3



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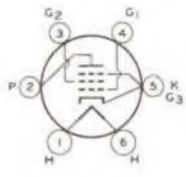
38 39/44

40 45



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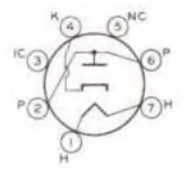
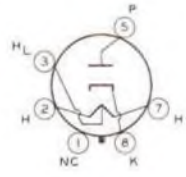
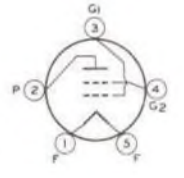


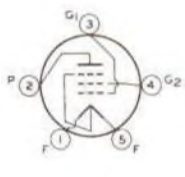
45Z3



45Z5-GT



46 49



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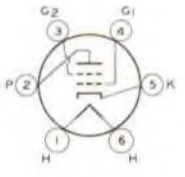
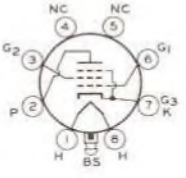


48

50 71-A



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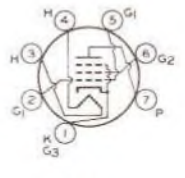
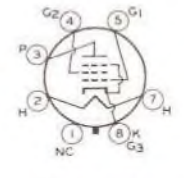
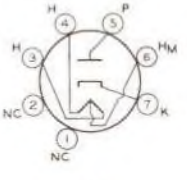
50B5



50C5



50C6-G 50L6-GT



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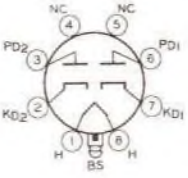
50EH5



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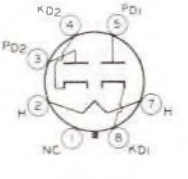

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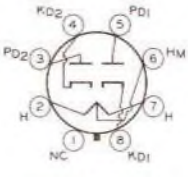
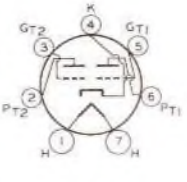


50Y7-GT 50Z7-G



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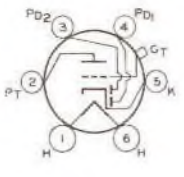

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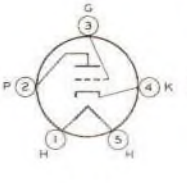

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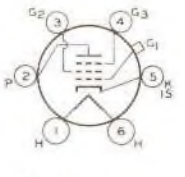
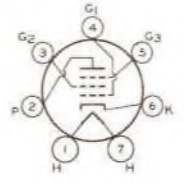


57 58 77 78



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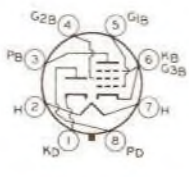
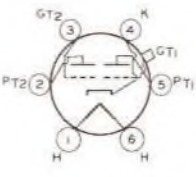


70L7-GT



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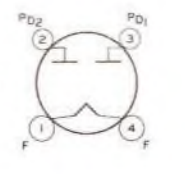
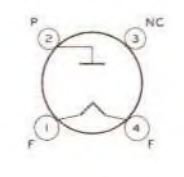


80 82* 83*



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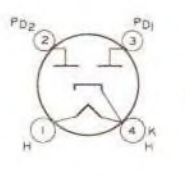
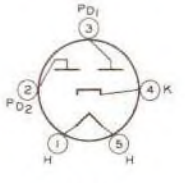


83-v



84/6Z4

* 82 and 83 are mercury-vapor types.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating: C. T.	Volts	Amp.	Use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
85	Twin-Diode Triode	D9	H	6.3	0.3	Triode Unit as Class A Amplifier	135 250	−10.5 −20.0	——	——	3.7 8.0	11000 7500	750 1100	8.3 8.3	25000 20000	0.075 0.350	85
89	Triple-Grid Power Amplifier	D9	H	6.3	0.4	As Triode¶ Class A Amplifier	160 250	−20.0 −31.0	——	——	17.0 32.0	3300 2600	1425 1800	4.7 4.7	7000 5500	0.30 0.90	89
						As Pentode■■ Class A Amplifier	100 250	−10.0 −25.0	100 250	1.6 5.0	9.5 32.0	104000 70000	1200 1800	——	10700 6750	0.33 3.40	
117L7/ M7-GT	Rectifier-Beam Power Tube	C10	H	117	0.09	Amplifier Unit as Class A Amplifier	105	− 5.2	105	4.0	43.0	17000	5300	——	4000	0.85	117L7/ M7-GT
						Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 75 Max. Peak Plate Ma., 450			Min. Total Effect. Plate-Supply Imped., 15 ohms.			
117N7-GT	Rectifier-Beam Power Tube	C10	H	117	0.09	Amplifier Unit as Class A Amplifier	100	− 6.0	100	5.0	51.0	16000	7000	——	3000	1.2	117N7-GT
						Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 75 Max. Peak Plate Ma., 450			Min. Total Effect. Plate-Supply Impedance, 15 ohms.			
117P7-GT	Rectifier-Beam Power Tube	C10	H	117	0.09	For other characteristics, refer to Type 117L7/M7-GT.											117P7-GT
117Z3	Half-Wave Rectifier	B2		117	0.04	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 320				Max. DC Output Ma., 90 Max. Peak Plate Ma., 540			Min. Total Effect. Plate-Supply Imped., 20 ohms			117Z3
117Z4-GT	Half-Wave Rectifier	C0	H	117.0	0.04	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output ma., 90 Max. Peak Plate ma., 540			Min. Total Effect. Plate-Supply Imped., 30 ohms			117Z4-GT
117Z6-GT	Rectifier-Doubler	C2r	H	117	0.075	Voltage Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 60				Min. Total Effective Plate-Supply Impedance per Plate: Half-Wave, 30 ohms; Full-Wave, 15 ohms.						117Z6-GT
						Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 60				Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.						
5879	Sharp-Cutoff Pentode	B6a	H	6.3	0.15	Class A Amplifier	250	− 3	100	.4	1.8	2§	1000	——	——	——	5879
5881	Beam Power Tube	C9b	H	6.3	0.9	Single Tube Class A Amplifier	250 350	−14 −18	250 250	4.3 2.5	75 53	30000 48000	6100 5200	——	2500 4200	6.7 11.3	5881
						Push-Pull Class A Amplifier	250 270	−16 −17.5	250 270	10♠ 11♠	120♠ 134♠	24500 23500	5500 5700	——	5000 5000	14.5† 17.5†	
						Push-Pull Class AB_1 Amplifier	360 360	−22.5 −22.5	270 270	5♠ 5♠	88♠ 88♠	——	——	——	6600 3800	26.5† 18 †	
6973	Beam Power Tube	B1a	H	6.3	0.45	Push-Pull Class AB_1 Amplifier	250 400	−15 −25	250 290	7♠ 2.5♠	92♠ 50♠	——	——	——	8000 8000	12.5 24	6973
							300 310	Cath. Bias	300 310	6 5	80 77	Cath. Bias Resistor, 230 ohms Cath. Bias Resistor, 270 ohms			5500 6000	15 17	
						Push-Pull ⧈ Class AB_1 Amplifier	375 370	−33.5 Cath. Bias	⧈	Cath. Ma., 62 Cath. Ma., 74		——	——	——	12500 13000	18.5 15	
7025	High-Mu Twin-Triode	B0a	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	100 250	− 1 − 2	——	——	.5 1.2	80000 62500	1250 1600	100 100	——	——	7025
7027	Beam Power Tube	D11a	H	6.3	0.9	Push-Pull Class AB_1 Amplifier	330 450	−24 −30	330 350	5.6♠ 3.4♠	122♠ 95♠	——	——	——	4500 6000	31.5 30	7027
							400 380	Cath. Bias	300 380	7♠ 5.6♠	112♠ 138♠	Cath. Bias Resistor, 200 ohms Cath. Bias Resistor, 180 ohms			6600 4500	32 36	
						Push-Pull Class AB_1 Amplifier	410	Cath. Bias	⧈	Cath. Ma., 134		Cath. Bias Resistor, 220 ohms			8000	24	
7027-A	Beam Power Tube	D11a	H	6.3	0.9	Push-Pull Class AB_1 Amplifier	540 450	−38 −30	400 350	5♠ 3.4♠	100♠ 95♠	——	——	——	6500 6000	76 50	7027-A
							400 380	Cath. Bias	300 380	7♠ 5.6♠	112♠ 138♠	Cath. Bias Resistor, 200 ohms Cath. Bias Resistor, 180 ohms			6600 4500	32 36	
						Push-Pull Class AB_1 Amplifier	410	Cath. Bias	⧈	Cath. Ma., 134		Cath. Bias Resistor, 220 ohms			8000	24	
7189	Beam Power Tube	C8a	H	6.3	0.76	Push-Pull Class AB_1 Amplifier	400	−15	300	1.6♠	15♠	——	——	——	8000	24†	7189
7199	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	215	− 8.5	——	——	9	8100	2100	17	——	——	7199
						Pentode Unit as Class A Amplifier	100 220	Cath. Bias	50 130	.35 3.5	1.1 12.5	1§ 400000	1500 7000	Cath. Bias Res., 1000 ohms Cath. Bias Res., 62 ohms			
EM84/ 6FG6	Electron-Ray Tube	B5h	H	6.3	0.27	Visual Indicator	Triode Plate Supply Volts, 250 Triode-Plate Resistance, 1 meg. Triode Grid-Supply Volts, −22 Max. Length of Dark Part of Target, when triode grid resistor = 0, 1.14 inch				Triode Plate Ma., 0.06			Fluorescent-Target Volts, 250 Triode-Grid Resistance, 0.47 meg. Fluorescent Target Ma., 1.6			EM84/ 6FG6

One vertical rule before or after type No. = GT or other larger glass type.

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.

Light Face = Discontinued type.

For key to tube dimensions and, legend for base and envelope connection diagrams, see page 37.

■■ Grid # 1 is control grid. Grid # 2 is screen. Grid # 3 tied to cathode.

¶ Grid # 1 is control grid. Grids # 2 and # 3 tied to plate.

For data on RCA Picture Tubes see pages 38 through 47.

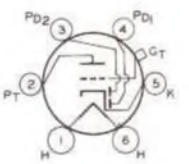
Note 1: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.

§ Megohms.

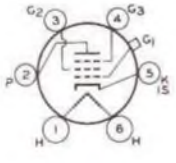
♠ For two tubes.

† Power output is for two tubes at stated plate-to-plate load.

⧈ Grid-No. 2 of each tube connected to tap on plate winding of output transformer. This arrangement permits approximately 40% to 50% of the plate signal voltage to be applied to Grid-No. 2 of each output tube.

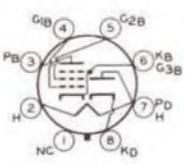


85

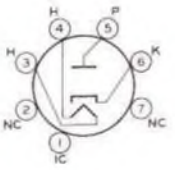


89

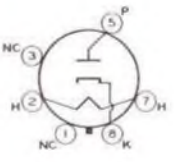
117L7/M7-GT



117N7-GT 117P7-GT



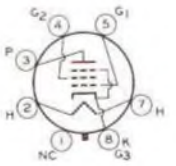
117Z3



117Z4-GT

117Z6-GT

5879



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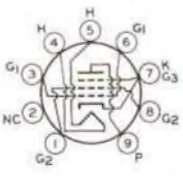
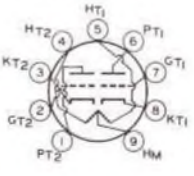
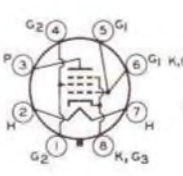


6973



7025



7027 7027-A

7189

7199

EM84/6FG6

KEY TO TUBE DIMENSIONS

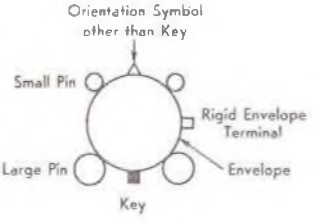
Symbol	Maximum Overall Length		Diameter
A	1-3/4"	x	3/8"
A1	1-3/4"	x	3/4"
A1a	1-3/4"	x	7/8"
A1b	1-3/4"	x	1-5/16"
B0	2-1/8"	x	3/4"
B0a	2-3/16"	x	7/8"
B0b	2-9/32"	x	1-3/16"
B0c	2-5/16"	x	1-9/32"
B1	2-5/8"	x	3/4"
B1a	2-5/8"	x	7/8"
B2	2-5/8"	x	1-1/16"
B3	2-5/8"	x	1-5/16"
B4	2-11/16"	x	7/8"
B4a	2-3/4"	x	7/8"
B5	2-25/32"	x	1-3/16"
B5a	2-27/32"	x	7/8"
B5b	2-7/8"	x	7/8"
B5c	2-7/8"	x	1-5/16"
C0	3"	x	1-9/32"
C0a	3-1/16"	x	7/8"
C0b	3-1/16"	x	1-9/32"
C1	3-1/8"	x	1-5/16"
C2	3-5/32"	x	1-3/16"
C2a	3-1/4"	x	1-5/16"
C2b	3-9/32"	x	7/8"
C2c	3-5/16"	x	1-9/32"
C3	3-5/16"	x	1-5/16"
C4	3-3/8"	x	1-9/32"
C5	3-7/16"	x	1-9/32"
C9a	3-7/16"	x	1-5/16"
C9b	3-15/32"	x	1-7/16"
C9c	3-1/2"	x	1-1/16"
C10	3-9/16"	x	1-9/32"
C10a	3-9/16"	x	1-5/16"
C10b	3-13/16"	x	1-9/32"
C11	3-7/8"	x	1-9/32"
C11a	3-7/8"	x	1-9/16"
D1	4"	x	1-3/16"
D1a	4"	x	1-9/16"
D2	4-1/16"	x	1-9/32"
D2a	4-1/8"	x	1-3/16"
D3	4-1/8"	x	1-9/16"
D4	4-3/16"	x	1-3/16"
D5	4-3/16"	x	1-9/16"
D6	4-1/4"	x	1-9/16"
D7	4-5/16"	x	1-5/8"
D8	4-15/32"	x	1-9/16"
D9	4-17/32"	x	1-9/16"
D10	4-19/32"	x	1-9/16"
D11	4-5/8"	x	1-9/16"
D11a	4-5/8"	x	1-5/8"
D11b	4-5/8"	x	1-23/32"
D11c	4-5/8"	x	1-13/16"
D12	4-11/16"	x	1-7/16"
D12a	4-11/16"	x	1-13/16"
D12b	4-3/4"	x	1-9/16"
D12c	4-3/4"	x	1-23/32"
D13	4-7/8"	x	1-9/16"
D13a	4-15/16"	x	1-9/16"
E	5"	x	1-9/16"
E0	5"	x	1-23/32"
E0a	5-1/8"	x	1-23/32"
E0b	5-1/8"	x	2-1/16"
E1	5-1/32"	x	1-13/16"
E1a	5-7/32"	x	1-23/32"
E2	5-5/16"	x	1-1/16"
E3	5-5/16"	x	2-1/16"
E3a	5-3/8"	x	2-1/16"
F1	5-11/16"	x	2-1/16"
F1a	6-1/4"	x	2-7/16"
G1	8"	x	2-1/16"

LEGEND FOR BASE AND ENVELOPE CONNECTION DIAGRAMS

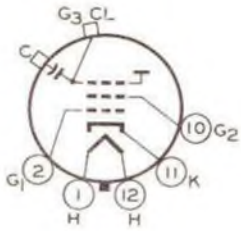
Bottom Views

Subscripts B, D, HP, HX, P, T, and TR indicate, respectively, beam unit, diode unit, heptode unit, hexode unit, pentode unit, triode unit, and tetrode unit in multi-unit types.

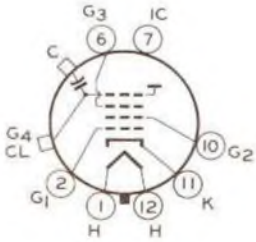
BC — Base Sleeve
BS — Base Shell
C — External Conductive Bulb Coating
CL — Collector
DJ — Deflecting Electrode
ES — External Shield
F — Filament
F_M — Filament Mid-Tap
G — Grid
H — Heater
H_L — Heater Tap for Panel Lamp
H_M — Heater Mid-Tap
IC — Internal Connection—Do Not Use
● — Gas-Type Tube
IS — Internal Shield
K — Cathode
NC — No Connection
P — Plate (Anode)
RC — Ray-Control Electrode
S — Shell
TA — Target
U — Unit



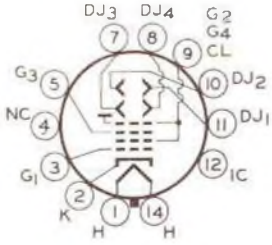
3. RCA PICTURE TUBE C



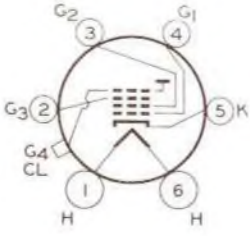
A
ULTOR = G_3 + CL



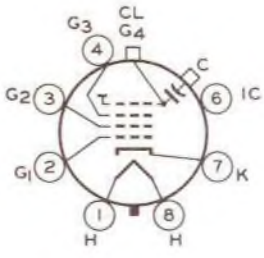
B
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3



C
ULTOR = G_2 + G_4 + CL
FOCUSING ELECTRODE = G_3



D
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3



E
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3

RCA Type	Envelope	Aluminized Screen	Faceplate	External Conductive Coating: Max.	External Conductive Coating: Min.	Focusing Method	Deflection Method	Approx. Deflection Angle, Degrees: Diag.	Approx. Deflection Angle, Degrees: Horiz.	Approx. Deflection Angle, Degrees: Vert.	Maximum Dimensions, Inches: Overall Length	Maximum Dimensions, Inches: Faceplate Diag. or Diameter	Maximum Dimensions, Inches: Width	Maximum Dimensions, Inches: Height	Neck Length, Inches	Minimum Screen Size, Inches
Black-and-White Types																
5TP4*	G	Yes	CL	500	100	E	M	—	50	—	12 1/8	5 1/4	—	—	7 15/32	4 1/2 Dia.
7DP4	G	No	CL	1500	400	E	M	—	50	—	14 7/16	7 5/16	—	—	8 1/8	6 3/4 Dia.
7JP4	G	No	CL	None	None	E	E○	—	—	—	14 7/8	7 1/8	—	—	—	6 Dia.
8DP4	G	No	FG	350	250	E	M	90	85	68	10 3/4	8 1/2	7 15/16	6 1/4	6 1/2	7 5/16 x 5 3/8
9AP4□	G	No	CL	None	None	E	M	—	40	—	21 3/8	9 1/4	—	—	10	7 1/4 Dia.
10BP4	G	No	Same as 10BP4-A, except has clear glass faceplate.													
10BP4-A	G	No	FG	2500	500	M	M	—	50	—	18	10 1/2	—	—	8 3/16	9 1/16 Dia.
10FP4-A	G	Yes	FG	2500	500	M	M	—	50	—	18	10 9/16	—	—	8 3/16	9 1/8 Dia.
12AP4□	G	No	CL	None	None	E	M	—	40	—	25 3/16	12 9/16	—	—	9 5/16	10 3/4 Dia.
12KP4-A	G	Yes	FG	2500	500	M	M	—	54	—	18	12 1/2	—	—	7 3/4	11 1/8 Dia.
12LP4	G	No	Same as 12LP4-A, except has clear glass faceplate.													
12LP4-A	G	No	FG	3000	750	M	M	—	54	—	19 1/8	12 1/2	—	—	8 1/4	11 Dia.
14ATP4‡	G	Yes	FG	1000	500	E	M	90	85	68	13 1/2	14 1/8	13 3/16	10 11/16	5 1/2	12 1/16 x 9 1/16
14BP4	See 14EP4, 14CP4, 14BP4.															
14CP4	See 14EP4, 14CP4, 14BP4.															
14EP4	See 14EP4, 14CP4, 14BP4.															
14EP4/ 14CP4/ 14BP4	G	No	FG	2000	750	M	M	70	65	50	16 7/8	13 5/16	12 3/16	9 7/16	7 1/8	11 1/2 x 8 5/8
14HP4	G	No	FG	2000	750	E	M	70	65	50	17 3/32	13 13/16	12 7/16	9 7/16	7 1/2	11 1/2 x 8 5/8
14QP4-A	G	Yes	FG	1000	600	E	M	70	65	50	16 17/32	13 1/16	12 1/16	9 5/16	6 7/8	11 1/2 x 8 5/8
14RP4	G	No	Same as 14RP4-A, except has non-aluminized screen.													
14RP4-A	G	Yes	FG	1200	800	E	M	90	85	68	14 1/2	14 1/8	13 3/16	10 11/16	6 1/2	12 1/16 x 9 1/2
14WP4	See 14WP4, 14ZP4.															
14WP4/ 14ZP4	G	Yes	FG	1200	800	E	M	90	85	68	13 1/2	13 1/8	13 3/16	10 11/16	5 1/2	12 1/16 x 9 1/16
14ZP4	See 14WP4, 14ZP4.															
16AP4	M	No	Same as 16AP4-A, except has clear glass faceplate.													
16AP4-A	M	No	FG	None	None	M	M	—	53	—	22 5/16	16	—	—	7 9/16	14 3/4 Dia.
16DP4-A	G	No	FG	None	None	M	M	—	60	—	21	16	—	—	7 7/8	14 1/2 Dia.
16GP4	M	No	Same as 16GP4-B, except has Filterglass faceplate.													
16GP4-A	M	No	Same as 16GP4-B, except has clear glass faceplate.													
16GP4-B	M	No	FFG	None	None	M	M	—	70	—	17 11/16	16	—	—	6 7/8	14 3/8 Dia.
16GP4-C	M	No	Same as 16GP4-B, except has frosted clear glass faceplate.													
16KP4	See 16RP4, 16KP4.															
16KP4-A	See 16RP4-A, 16KP4-A.															
16LP4-A	G	No	FG	2000	750	M	M	—	52	—	22 5/8	16	—	—	7 5/8	14 1/2 Dia.
16RP4	See 16RP4, 16KP4.															
16RP4/ 16KP4	G	No	Same as 16RP4-A/16KP4-A, except has non-aluminized screen.													
16RP4-A	See 16RP4-A, 16KP4-A.															
16RP4-A/ 16KP4-A	G	Yes	FG	1500	750	M	M	70	65	50	19 1/8	16 1/4	14 7/8	11 3/4	7 1/2	13 1/2 x 10 1/8

Light face = Discontinued type.
G = Glass rectangular.
M = Metal rectangular.
CL = Clear glass.
FFG = Frosted Filterglass.
FG = Filterglass.
M = Magnetic.
E = Electrostatic.
G = Glass round.
M = Metal round.

Note:
Unless otherwise noted all picture tubes shown have 6.3-volt, 600-milliampere heaters.

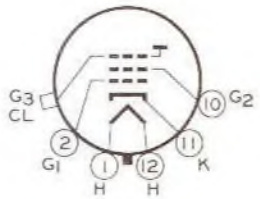
□ 2.5-volt, 2.1-ampere heater.
○ 6.4-volt, 450-milliampere heater.
◆ 6.3-volt, 1.8-ampere heater (three 600-milliampere heaters paralleled internally).
◇ Spherical, unless otherwise specified.
** Cylindrical faceplate.
* At ultor lip terminal.
‡ At faceplate.
■ Projection type.

** This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.
○ Deflection factors (de in.) for typical operating conditions shown:

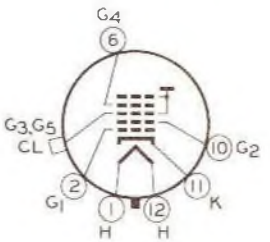
D_1 & D_2 (magnetic centers)	D_3 & D_4 (magnetic base)
185 to 246	198 to 264

ARACTERISTICS CHART

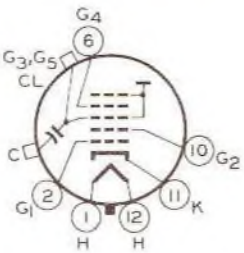
High Voltage Terminal	Base	Maximum Ratings: Final High Voltage Electrode (Ultor*) Volts	Maximum Ratings: Focusing Electrode Volts	Maximum Ratings: Grid No. 2 Volts	Maximum Ratings: Grid No. 1 Volts	Maximum Ratings: Peak Heater-Cathode Volts: H(−) During Warm-Up*	Maximum Ratings: Peak Heater-Cathode Volts: H(−) After Warm-Up	Maximum Ratings: Peak Heater-Cathode Volts: H(+)	Typical Operating Conditions in Grid-Drive Service: Final High Voltage Electrode (Ultor*) Volts	Typical Operating Conditions in Grid-Drive Service: Grid No. 2 Volts	Typical Operating Conditions in Grid-Drive Service: Focusing Electrode Volts	Typical Operating Conditions in Grid-Drive Service: Grid No. 1 Volts For Visual Extinction of Focused Raster	P-M Ion-Trap Magnet Min. Gausses	RCA Type
◆														Black-and-White Types
Cavity Cap	B	27000	6000	350	−150	410	175	10	27000	300	4320 to 5400	−37 to −93	None	5TP4•
Cavity Cap	B	8000	2400	410	−125	410	150	150	8000	250	1215 to 1645	−22 to −58	—	7DP4
Base Pin	C	6000	2800	∞	−200	410	125	125	6000	∞	1620 to 2400	−67 to −163	None	7JP4
Cavity Cap	J	8000	+500 −500	300	−100	—	180	180	6000 8000	150 200	+15 to +315 +60 to +360	−13 to −33 −17 to −46	31 36	8DP4
Medium Cap	D	7000	2000	300	−125	—	—	—	7000	250	1190 to 1790	−15 to −55	None	9AP4‖
Ratings and typical operating conditions are same as for type 10BP4-A.														10BP4
Cavity Cap	A	12000	—	410	−125	410	150	150	8000 to 12000	250	—	−22 to −58	—	10BP4-A
Cavity Cap	A	12000	—	410	−125	410	140	140	8000 to 12000	250	—	−22 to −58	None	10FP4-A
Medium Cap	D	7000	2000	300	−125	—	—	—	7000	250	1190 to 1790	−15 to −55	None	12AP4‖
Cavity Cap	A	12000	—	410	−125	410	140	140	9000 to 12000	250	—	−22 to −58	None	12KP4-A
Ratings and typical operating conditions are same as for type 12LP4-A.														12LP4
Cavity Cap	A	12000	—	410	−125	410	150	150	9000 to 12000	250	—	−22 to −58	—	12LP4-A
Cavity Cap	H	14000	+1000 −500	500	−140	—	180	180	10000 14000	300 400	0 to +400 0 to +400	−25 to −69 −31 to −90	None	14ATP4
See 14EP4/14CP4/14BP4.														14BP4
See 14EP4/14CP4/14BP4.														14CP4
See 14EP4/14CP4/14BP4.														14EP4
Cavity Cap	A	14000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	14EP4/ 14CP4/ 14BP4
Cavity Cap	H	14000	+500 −500	500	−125	410	180	180	12000 14000	300 300	−50 to +265 −55 to +310	−28 to −72 −28 to −72	29 31	14HP4
Cavity Cap	H	11000	+1000 −500	500	−180	410	180	180	10000	300	−15 to +285	−29 to −77	29	14QP4-A
Ratings and typical operating conditions are same as for type 14RP4-A.														14RP4
Cavity Cap	H	14000	+500 −500	400	−110	—	180	180	10000 14000	300 300	−50 to +350 +70 to +470	−26 to −70 −26 to −70	36 43	14RP4-A
See 14WP4/14ZP4.														14WP4
Cavity Cap	H	14000	+1000 −500	500	−140	410	180	180	12000	300	0 to +350	−28 to −72	None	14WP4/ 14ZP4
See 14WP4/14ZP4.														14ZP4
Ratings and typical operating conditions are same as for type 16AP4-A.														16AP4
Metal-Shell Lip	F	14000	—	410	−125	410	150	150	9000 12000	300 300	— —	−28 to −72 −28 to −72	23 29	16AP4-A
Cavity Cap	F	15000	—	410	−125	410	125	125	9000 to 15000	250	—	−22 to −58	—	16DP4-A
Ratings and typical operating conditions are same as for type 16GP4-B.														16GP4
Ratings and typical operating conditions are same as for type 16GP4-B.														16GP4-A
Metal-Shell Lip	F	14000	—	410	−125	410	150	150	12000	300	—	−28 to −72	29	16GP4-B
Ratings and typical operating conditions are same as for type 16GP4-B.														16GP4-C
See 16RP4/16KP4.														16KP4
See 16RP4-A/16KP4-A.														16KP4-A
Cavity Cap	A	14000	—	410	−125	410	125	125	12000 to 14000	300	—	−28 to −72	—	16LP4-A
See 16RP4/16KP4.														16RP4
Ratings and typical operating conditions are same as for type 16RP4-A/16KP4-A.														16RP4/ 16KP4
See 16RP4-A/16KP4-A.														16RP4-A
Cavity Cap	A	16000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	16RP4-A/ 16KP4-A



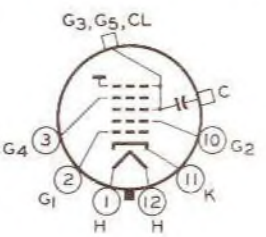
F
ULTOR = G_3 + CL



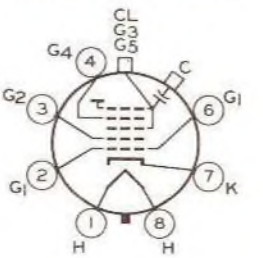
G
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



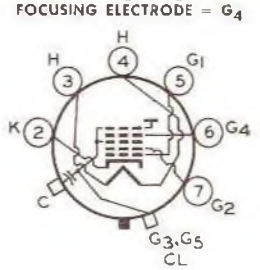
H
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



J
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



K
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



L
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4

• ULTOR is defined as the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.

§ Positive bias value = 0 volts; positive peak value = 2 volts.

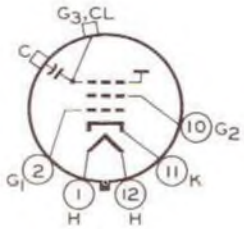
◆ Referred to grid No. 1—Cathode-Drive Service.

• During equipment warm-up not exceeding 15 seconds.

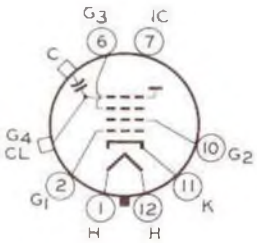
∞ Grid No. 2 connected to final high-voltage electrode within tube.

‖ Each gun.

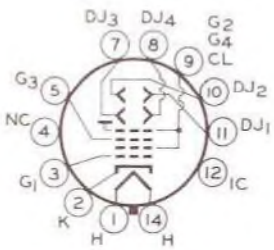
• This value has been specified to take care of the conditions where an ac voltage is provided for dynamic focusing.



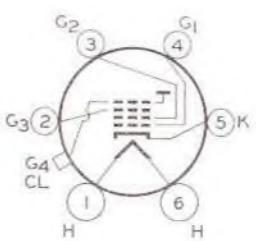
A
ULTOR = G_3 + CL



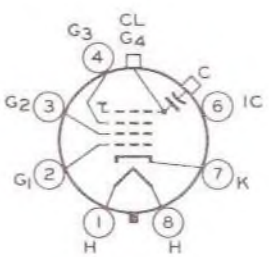
B
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3



C
ULTOR = G_2 + G_4 + CL
FOCUSING ELECTRODE = G_3



D
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3



E
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3

RCA Type	Envelope	Aluminized Screen	Faceplate	External Conductive Coating: Max.	External Conductive Coating: Min.	Focusing Method	Deflection Method	Approx. Deflection Angle, Degrees: Diag.	Approx. Deflection Angle, Degrees: Horiz.	Approx. Deflection Angle, Degrees: Vert.	Maximum Dimensions, Inches: Overall Length	Maximum Dimensions, Inches: Envelope Dia. or Diagonal	Maximum Dimensions, Inches: Width	Maximum Dimensions, Inches: Height	Neck Length, Inches	Minimum Screen Size, Inches
Black-and-White Types																
16TP4	G	No	FG	2000	750	M	M	70	65	50	18 1/16	16 3/4	14 7/16	11 5/16	6 7/16	13 1/16 x 10 1/16
16WP4-A	G	No	FG	1500	750	M	M	—	70	—	18 1/16	16	—	—	7 3/16	14 1/2 Dia.
17ATP4	See 17AVP4/17ATP4.															
17ATP4-A	See 17AVP4-A/17ATP4-A.															
17AVP4	See 17AVP4/17ATP4.															
17AVP4/17ATP4	G	No	Same as 17AVP4-A/17ATP4-A, except has non-aluminized screen.													
17AVP4-A	See 17AVP4-A/17ATP4-A.															
17AVP4-A/17ATP4-A	G	Yes	FG	1500	1000	E	M	90	85	68	16	16 3/4	15 33/64	12 13/16	6 1/2	14 5/16 x 11 1/8
17BJP4	G	Yes	FG	1500	1000	E	M	90	85	68	15	16 1/4	15 33/64	12 13/16	5 1/8	14 5/16 x 11 1/8
17BP4-A	G	No	Same as 17BP4-B, except has non-aluminized screen.													
17BP4-B	G	Yes	FG	1500	750	M	M	70	65	50	19 1/16	16 1/4	15 33/64	12 13/32	7 1/8	14 5/16 x 11 1/8
17BRP4	See 17BZP4/17CAP4/17CKP4/17BRP4.															
17BVP4	G	Yes	FG	1500	1000	E	M	110	105	87	13 9/16	16 11/16	15 3/4	12 7/8	6 1/8	14 3/4 x 11 11/16
17BZP4	See 17BZP4/17CAP4/17CKP4/17BRP4.															
17BZP4/17CAP4/17CKP4/17BRP4	G	Yes	FG	1500	1000	E	M	110	105	87	12 13/16	16 11/16	15 3/4	12 7/8	5 7/16	14 3/4 x 11 11/16
17CAP4	See 17BZP4/17CAP4/17CKP4/17BRP4.															
17CDP4	G	Yes	FG	1500	1000	E	M	110	105	87	12 13/16	16 11/16	15 3/4	12 7/8	5 7/16	14 3/4 x 11 11/16
17CFP4	G	Yes	FG	1500	1200	E	M	90	85	68	15 3/4	16 11/16	15 3/4	12 7/8	5 1/2	14 3/4 x 11 11/16
17CKP4	See 17BZP4/17CAP4/17CKP4/17BRP4.															
17CP4-A	M	No	Same as 17CP4, except has Filterglass faceplate.													
17CYP4	G	Yes	FG	1500	1000	E	M	90	85	68	14 3/4	16 11/16	12 7/8	15 3/4	4 1/2	14 3/4 x 11 11/16
17DKP4	G	Yes	FG	1500	1000	E	M	110	105	87	10 13/16	16 11/16	15 3/4	12 7/8	3 9/16	14 3/4 x 11 11/16
17DSP4	G	Yes	FG	1500	1000	E	M	110	105	87	11 7/16	16 11/16	12 7/8	15 3/4	4 1/8	14 3/4 x 11 11/16
17GP4	M	No	FFG	None	None	E	M	70	66	50	19 5/16	17	16 1/16	12 3/8	7 1/2	14 3/4 x 10 11/16
17HP4	See 17HP4/17RP4.															
17HP4/17RP4	G	No	FG	1500	750	E	M	70	65	50	19 5/16	16 3/4	15 33/64	12 13/32	7 1/2	14 5/16 x 11 1/4
17HP4-B	See 17HP4-B/17RP4-C.															
17HP4-B/17RP4-C	G	Yes	FG	1500	750	E	M	70	65	50	19 5/16	16 3/4	15 33/64	12 13/32	7 1/2	14 5/16 x 11 1/4
17LP4	G	No	FG	750	500	M	M	70	65	50	19 3/16	16 3/4	15 33/64	12 13/32	7 1/2	14 5/16 x 11 1/4
17LP4	See 17LP4/17VP4.															
17LP4/17VP4	G	No	FG**	1500	750	E	M	70	65	50	19 3/16	16 3/4	15 33/64	12 13/32	7 1/2	14 1/4 x 10 3/4
17LP4-A	See 17LP4-A/17VP4-B.															
17LP4-A/17VP4-B	G	Yes	FG**	1500	750	E	M	70	65	50	19 5/16	16 1/4	15 33/64	12 13/32	7 1/2	14 1/4 x 10 3/4
17QP4	G	No	FG**	1500	750	M	M	70	65	50	19 3/16	16 3/4	15 33/64	12 13/32	7 1/2	14 1/4 x 10 3/4
17QP4-A	G	Yes	FG**	1500	750	M	M	70	65	50	19 3/16	16 1/4	15 33/64	12 13/32	7 1/2	14 1/4 x 10 3/4
17RP4	See 17HP4/17RP4.															
17RP4-C	See 17HP4-B/17RP4-C.															
17TP4	M	No	FFG	None	None	E	M	70	66	50	19 5/16	17	16 1/16	12 3/8	7 1/2	14 3/4 x 10 11/16
17VP4	See 17LP4/17VP4.															

Light face = Discontinued type.
G = Glass rectangular.
M = Metal rectangular.
CL = Clear glass.
FFG = Frosted Filterglass.
FG = Filterglass.
M = Magnetic.
E = Electrostatic.
G = Glass round.
M = Metal round.

Note:
Unless otherwise noted all picture tubes shown have 6.3-volt, 600-milliampere heaters.

n 2.5-volt, 2.1-ampere heater.

8.4-volt, 450-milliampere heater.

● 6.3-volt, 1.8-ampere heater (three 600-milliampere heaters paralleled internally).

p Spherical, unless otherwise specified.

** Cylindrical faceplate.

† At ultor lip terminal.

‡ At faceplate.

■ Projection type.

*** This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.

Deflection factors (de/m) for typical operating conditions shown:

D1 & D3 (nearest screen) 186 to 246

D1 & D3 (nearest base) 150 to 200

CTERISTICS CHART (Cont'd)

High Voltage Terminal	Bas-ing	Maximum Ratings: Final High-Voltage Electrode (Ultor ●) Volts	Maximum Ratings: Focusing Electrode Volts	Maximum Ratings: Grid No. 2 Volts	Maximum Ratings: Grid No. 1 Volts	Maximum Ratings: Peak Heater-Cathode Volts: H(−) During Warm-Up*	Maximum Ratings: Peak Heater-Cathode Volts: H(−) After Warm-Up	Maximum Ratings: Peak Heater-Cathode Volts: K(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor ●) Volts	Typical Operating Conditions in Grid-Drive Service: Grid No. 2 Volts	Typical Operating Conditions in Grid-Drive Service: Focusing Electrode Volts	Typical Operating Conditions in Grid-Drive Service: Grid No. 1 Volts For Visual Extinction of Focused Raster	P M Ion-Trap Magnet Min. Gausses	RCA Type
														Black-and-White Types (Cont'd)
Cavity Cap	A	14000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	16TP4
Cavity Cap	A	16000	—	410	−125	410	125	125	12000 to 16000	250	—	−22 to −58	—	16WP4-A
See 17AVP4/17ATP4.														17ATP4
See 17AVP4-A/17ATP4-A.														17ATP4-A
See 17AVP4/17ATP4.														17AVP4
Ratings and typical operating conditions are same as for type 17AVP4-A/17ATP4-A.														17AVP4/ 17ATP4
See 17AVP4-A/17ATP4-A.														17AVP4-A
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +310 −65 to +350	−28 to −72 −28 to −72	31 33	17AVP4-A/ 17ATP4-A
Cavity Cap	H	16000	+1000 −500	500	−140	410	180	180	16000	300	−65 to +350	−28 to −72	None	17BJP4
Ratings and typical operating conditions are same as for type 17BP4-B.														17BP4-A
Cavity Cap	A	16000	—	500	−140	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	17BP4-B
See 17BZP4/17CAP4/17CKP4/17BRP4.														17BRP4
Cavity Cap	L	16000	+1000 −500	500	−140	410	180	180	14000	300	−50 to +350	−35 to −72	33	17BVP4
See 17BZP4/17CAP4/17CKP4/17BRP4.														17BZP4
Cavity Cap	K	16000	+1000 −500	500	−140	—	180	180	14000 16000	300 400	0 to +400 0 to +400	−28 to −72 −36 to −94	None	17BZP4/ 17CAP4/ 17CKP4/ 17BRP4
See 17BZP4/17CAP4/17CKP4/17BRP4.														17CAP4
Cavity Cap	K	16000	+1000 −500	500	−140	—	180	180	14000 16000	300 400	0 to +400 0 to +400	−28 to −72 −36 to −94	None	17CDP4
Cavity Cap	H	16000	+1000 −500	500	−140	410	180	180	14000	300	−50 to +350	−28 to −72	None	17CFP4
See 17BZP4/17CAP4/17CKP4/17BRP4.														17CKP4
Ratings and typical operating conditions are same as for type 17CP4.														17CP4-A
Cavity Cap	H	16000	+1000 −500	500	−140	410	180	180	14000	450	−30 to +350	−39 to −105	None	17CYP4
Cavity Cap	E	16000	650	550	−140	410	180	180	16000 16000	400 500	0 to +400 0 to +400	−34 to −63 −43 to −78	None	17DKP4
Cavity Cap	K	16000	+1000 −500	500	−140	—	180	180	14000	400	0 to +400	−45 to −90	None	17DSP4
Metal-Shell Lip	G	16000	5000	500	−125	410	180	180	12000 14000	300 300	2040 to 2760 2380 to 3220	−28 to −72 −28 to −72	29 31	17GP4
See 17HP4/17RP4.														17HP4
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	17HP4/ 17RP4
See 17HP4-B/17RP4-C.														17HP4-B
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	17HP4-B/ 17RP4-C
Cavity Cap	A	18000	—	400	−140	410	150	150	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	17JP4
See 17LP4/17VP4.														17LP4
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	17LP4/ 17VP4
See 17LP4-A/17VP4-B.														17LP4-A
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	17LP4-A/ 17VP4-B
Cavity Cap	A	16000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	17QP4
Cavity Cap	A	18000	—	500	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	17QP4-A
See 17HP4/17RP4.														17RP4
See 17HP4-B/17RP4-C.														17RP4-C
Metal-Shell Lip	G	16000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	17TP4
See 17LP4/17VP4.														17VP4

● ULTOR is defined as the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.

§ Positive bias value = 0 volts; positive peak value = 2 volts.

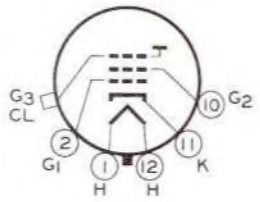
● Referred to grid No. 1—Cathode-Drive Service.

* During equipment warm-up not exceeding 15 seconds.

∝ Grid No. 3 connected to final high-voltage electrode within tube.

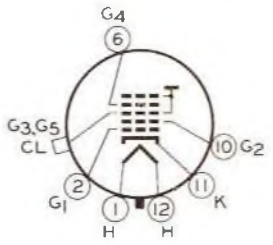
▲ Each gun.

• This value has been specified to take care of the condition where no voltage is provided for dynamic focusing.



F

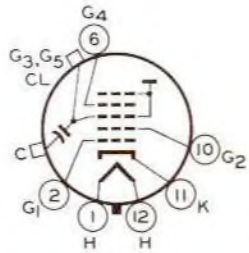
ULTOR = G_3 + CL



G

ULTOR = G_3 + G_5 + CL

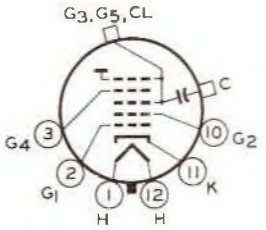
FOCUSING ELECTRODE = G_4



H

ULTOR = G_3 + G_5 + CL

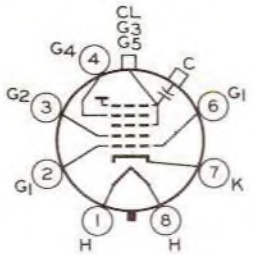
FOCUSING ELECTRODE = G_4



J

ULTOR = G_3 + G_5 + CL

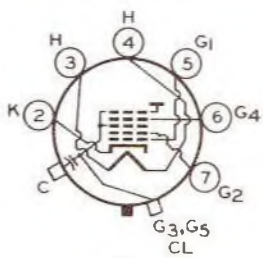
FOCUSING ELECTRODE = G_4



K

ULTOR = G_3 + G_5 + CL

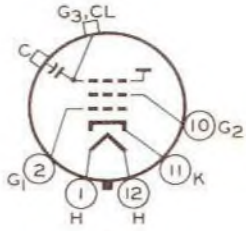
FOCUSING ELECTRODE = G_4



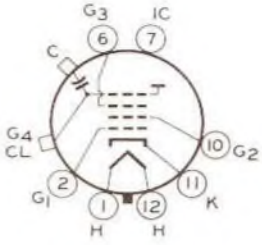
L

ULTOR = G_3 + G_5 + CL

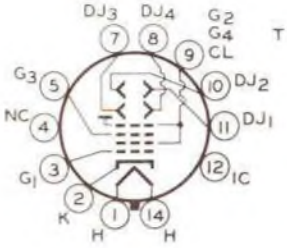
FOCUSING ELECTRODE = G_4



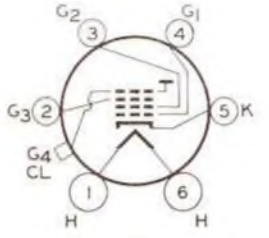
A
ULTOR = G_3 + CL



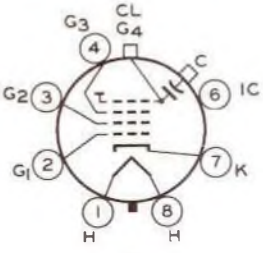
B
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3



C
ULTOR = G_2 + G_4 + CL
FOCUSING ELECTRODE = G_3



D
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3



E
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3

RCA Type	Envelope	Aluminized Screen	Faceplate	External Conductive Coating: Max.	External Conductive Coating: Min.	Focusing Method	Deflection Method	Approx. Deflection Angle, Degrees: Diag.	Horiz.	Vert.	Maximum Dimensions, Inches: Overall Length	Envelope Dia. or Diagonal	Width	Height	Neck Length, Inches	Minimum Screen Size, Inches
Black-and-White Types (Cont'd)																
17VP4-B	See 17LP4-A, 17VP4-B.															
19AP4	Ⓜ	No	Same as 19AP4-B, except has clear glass faceplate.													
19AP4-A	Ⓜ	No	Same as 19AP4-B, except has Filterglass faceplate.													
19AP4-B	Ⓜ	No	FFG	None	None	M	M	—	66	—	22	18⅜	—	—	7½	17¼ Dia
19AP4-D	Ⓜ	No	Same as 19AP4-B, except has frosted clear glass faceplate.													
20CP4	G	No	FG	None	None	M	M	70	66	50	21¹³⁄₁₆	20⁹⁄₁₆	18⅞	15⅛	7⅜	17 x 12¾
20CP4-A	See 20DP4-A, 20CP4-A.															
20CP4-D	See 20DP4-C, 20CP4-D.															
20DP4-A	See 20DP4-A, 20CP4-A.															
20DP4-A/ 20CP4-A	G	No	FG	1500	500	M	M	70	66	50	21⅞	20⁹⁄₁₆	18¹³⁄₁₆	15⅛	7⅜	17 x 12¾
20DP4-C	See 20DP4-C, 20CP4-D.															
20DP4-C/ 20CP4-D	G	Yes	FG	1500	500	M	M	70	66	50	21⅞	20⁹⁄₁₆	18¹³⁄₁₆	15⅛	7⅜	17 x 12¾
20HP4-A	See 20HP4-A, 20MP4.															
20HP4-A/ 20MP4	G	No	FG	1500	500	E	M	70	66	50	22¼	20⅜	18¹³⁄₁₆	15⅛	7½	17 x 12¾
20HP4-D	G	Yes	FG	1500	500	E	M	70	66	50	22⅛	20⅜	18¹³⁄₁₆	15⅛	7½	17 x 12¾
20MP4	See 20HP4-A, 20MP4.															
21ACP4-A	See 21ACP4-A, 21BSP4, 21AMP4-A.															
21ACP4-A/ 21BSP4/ 21AMP4-A	G	Yes	FG	2500	2000	M	M	90	85	68	20¾	21½	20¾	16⅛	7½	19¹⁄₁₆ x 15⅛
21ALP4	G	No	FG	750	500	E	M	90	85	68	20⅞	21½	20⅞	16½	7½	19⅛ x 15⅛
21ALP4-A	See 21ALP4-B, 21ALP4-A.															
21ALP4-B	See 21ALP4-B, 21ALP4-A.															
21ALP4-B/ 21ALP4-A	G	Yes	FG	750	500	E	M	90	85	68	20⅞	21½	20⅞	16½	7½	19¹⁄₁₆ x 15⅛
21AMP4-A	See 21ACP4-A, 21BSP4, 21AMP4-A.															
21AP4	M	No	FFG	None	None	M	M	70	66	50	22⅝	21	19³³⁄₃₂	15⅞	7½	18⅛ x 13¹¹⁄₁₆
21ATP4	See 21ATP4-A, 21ATP4.															
21ATP4-A	See 21ATP4-A, 21ATP4.															
21ATP4-A/ 21ATP4	G	Yes	FG	1500	1200	E	M	90	85	68	20⅜	21½	20⅜	16½	7½	19¹⁄₁₆ x 15⅛
21AUP4	See 21AVP4, 21AUP4.															
21AUP4-A	See 21AVP4-B, 21AUP4-B, 21AVP4-A, 21AUP4-A.															
21AUP4-B	See 21AVP4-B, 21AUP4-B, 21AVP4-A, 21AUP4-A.															
21AVP4	See 21AVP4, 21AUP4.															
21AVP4/ 21AUP4	G	No	FG	2500	2000	E	M	72	67	53	23¹³⁄₃₂	21½	20⅜	16½	7½	19¹⁄₁₆ x 15⅛
21AVP4-A	See 21AVP4-B, 21AUP4-B, 21AVP4-A, 21AUP4-A.															
21AVP4-B	See 21AVP4-B, 21AUP4-B, 21AVP4-A, 21AUP4-A.															
21AVP4-B/ 21AUP4-B/ 21AVP4-A/ 21AUP4-A	G	Yes	FG	2500	2000	E	M	72	67	53	23¹³⁄₃₂	21½	20⅜	16½	7½	19¹⁄₁₆ x 15⅛
21AWP4	G	Yes	FG	2500	2000	M	M	72	67	53	23¹³⁄₃₂	21½	20⅜	16½	7½	19¹⁄₁₆ x 15⅛
21BSP4	See 21ACP4-A, 21BSP4, 21AMP4-A.															
21BTP4	G	Yes	FG	2500	2000	E	M	90	85	68	20⅜	21½	20⅜	16½	7½	19¹⁄₁₆ x 15⅛
21CBP4-A	G	Yes	FG	2500	2000	E	M	90	85	68	18¾	21½	20⅜	16½	5½	19¹⁄₁₆ x 15⅛
21CEP4	G	Yes	FG	2500	2000	E	M	110	105	87	14¾	21½	20⅜	16½	5⅜	19¹⁄₁₆ x 15⅛

Light face = Discontinued type
G = Glass rectangular.
M = Metal rectangular.
CL = Clear glass.
FFG = Frosted Filterglass.
FG = Filterglass.
M = Magnetic.
E = Electrostatic.
Ⓖ = Glass round.
Ⓜ = Metal round.

Note:
Unless otherwise noted all picture tubes shown have 6.3-volt, 600-milliampere heaters.

2.5-volt/2.1 ampere heater.

σ 8.4-volt/450-milliampere heaters.

◆ 6.3-volt/1.8-ampere heater (three 600-milliampere heaters paralleled internally).

g Spherical, unless otherwise specified.

▲▲ Cylindrical faceplate.

† At altor lip terminal.

‡ At faceplate.

■ Projection type.

■■ This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.

⊙ Deflection factors (de/in.) for typical operating conditions shown:

D1 & D4 (square screen)	D2 & D3 (square bulb)
185 to 245	156 to 204

TERISTICS CHART (Cont'd)

High Voltage Terminal	Basing	Maximum Ratings: Final High-Voltage Electrode (Ultor*) Volts	Maximum Ratings: Focusing Electrode Volts	Maximum Ratings: Grid No. 2 Volts	Maximum Ratings: Grid No. 1 Volts§	Maximum Ratings: Peak Heater-Cathode Volts: H(−) During Warm-Up•	Maximum Ratings: Peak Heater-Cathode Volts: H(−) After Warm-Up	Maximum Ratings: Peak Heater-Cathode Volts: H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor*) Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 2 Volts	Typical Operating Conditions in Grid-Drive Service: Focusing Electrode Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 1 Volts For Visual Extinction of Focused Raster	P-M Ion-Trap Magnet Min. Gaussies	RCA Type
														Black-and-White Types (Cont'd)
		See 17LP4-A, 17VP4-B.												17VP4-B
		Ratings and typical operating conditions are same as for type 19AP4-B.												19AP4
		Ratings and typical operating conditions are same as for type 19AP4-B.												19AP4-A
Metal-Shell Lip	F	16000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	19AP4-B
		Ratings and typical operating conditions are same as for type 19AP4-B.												19AP4-D
Cavity Cap	F	18000	—	410	−125	410	150	150	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	20CP4
		See 20DP4-A, 20CP4-A.												20CP4-A
		See 20DP4-C, 20CP4-D.												20CP4-D
		See 20DP4-A, 20CP4-A.												20DP4-A
Cavity Cap	A	18000	—	410	−125	410	180	180	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	20DP4-A/ 20CP4-A
		See 20DP4-C, 20CP4-D.												20DP4-C
Cavity Cap	A	18000	—	410	−125	410	180	180	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	20DP4-C/ 20CP4-D
		See 20HP4-A, 20MP4.												20HP4-A
Cavity Cap	H	16000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	20HP4-A/ 20MP4
Cavity Cap	H	16000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	20HP4-D
		See 20HP4-A, 20MP4.												20MP4
		See 21ACP4-A, 21BSP4, 21AMP4-A.												21ACP4-A
Cavity Cap	A	20000	—	500	−140	410	180	180	16000 18000	300 400	— —	−28 to −72 −37 to −96	33 35	21ACP4-A/ 21BSP4/ 21AMP4-A
Cavity Cap	H	18000	All other ratings and typical operating conditions are same as for type 21ALP4-B, 21ALP4-A.											21ALP4
		See 21ALP4-B, 21ALP4-A.												21ALP4-A
		See 21ALP4-B, 21ALP4-A.												21ALP4-B
Cavity Cap	H	20000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	21ALP4-B/ 21ALP4-A
		See 21ACP4-A, 21BSP4, 21AMP4-A.												21AMP4-A
Metal-Shell Lip	F	18000	—	500	−125	410	180	180	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	21AP4
		See 21ATP4-A, 21ATP4.												21ATP4
		See 21ATP4-A, 21ATP4.												21ATP4-A
		Ratings and typical operating conditions are same as for type 21ALP4-B, 21ALP4-A.												21ATP4-A/ 21ATP4
		See 21AVP4, 21AUP4.												21AUP4
		See 21AVP4-B, 21AUP4-B, 21AVP4-A, 21AUP4-A.												21AUP4-A
		See 21AVP4-B, 21AUP4-B, 21AVP4-A, 21AUP4-A.												21AUP4-B
		See 21AVP4, 21AUP4.												21AVP4
Cavity Cap	H	18000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	21AVP4/ 21AUP4
		See 21AVP4-B, 21AUP4-B, 21AVP4-A, 21AUP4-A.												21AVP4-A
		See 21AVP4-B, 21AUP4-B, 21AVP4-A, 21AUP4-A.												21AVP4-B
Cavity Cap	H	20000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	21AVP4-B/ 21AUP4-B/ 21AVP4-A/ 21AUP4-A
Cavity Cap	A	18000	—	500	−140	410	180	180	16000 18000	300 400	— —	−28 to −72 −37 to −96	33 35	21AWP4
		See 21ACP4-A, 21BSP4, 21AMP4-A.												21BSP4
		Ratings and typical operating conditions are same as for type 21ALP4-B, 21ALP4-A.												21BTP4
Cavity Cap	H	20000	+1000 −500	500	−140	410	180	180	16000	300	0 to +450	−28 to −72	None	21C8P4-A
Cavity Cap	K	16000	+1000 −500	500	−140	—	180	180	14000 16000	300 400	0 to +400 0 to +400	−28 to −72 −36 to −94	None	21CEP4

• ULTOR is defined as the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.

§ Positive bias value = 0 volts; positive peak value = 2 volts.

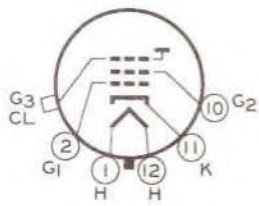
◆ Referred to grid No. 1—Cathode-Drive Service.

• During equipment warm-up not exceeding 15 seconds.

= Grid No. 2 connected to final high-voltage electrode within tube.

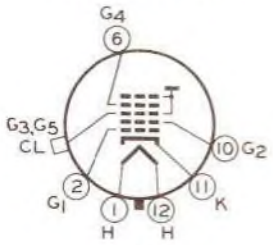
▲ Each gun.

▲ This value has been specified to take care of the condition where no voltage is provided for dynamic focusing.



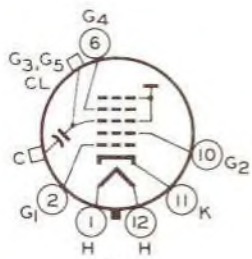
F

ULTOR = G_3 + CL



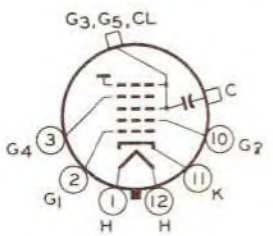
G

ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



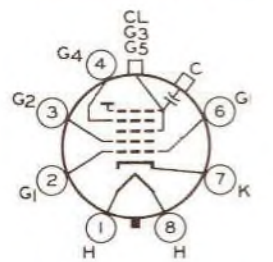
H

ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



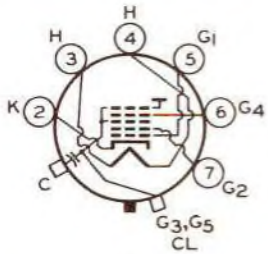
J

ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



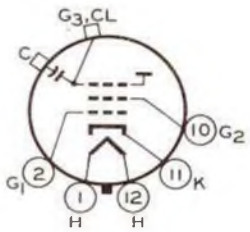
K

ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4

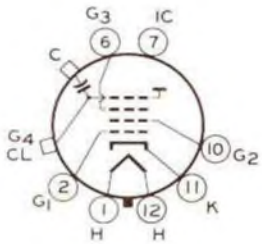


L

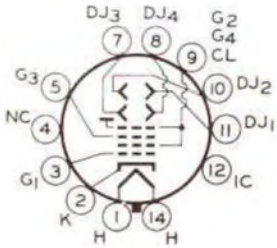
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



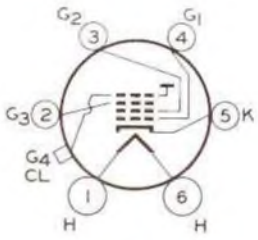
A
ULTOR = G_3 + CL



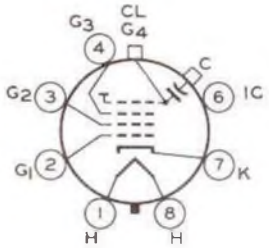
B
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3



C
ULTOR = G_2 + G_4 + CL
FOCUSING ELECTRODE = G_3



D
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3



E
ULTOR = G_4 + CL
FOCUSING ELECTRODE = G_3

RCA Type	Envelope	Aluminized Screen	Faceplate	External Conductive Coating: Max. (volt)	External Conductive Coating: Min. (volt)	Focusing Method	Deflection Method	Approx. Deflection Angle, Degrees: Diag.	Approx. Deflection Angle, Degrees: Horiz.	Approx. Deflection Angle, Degrees: Vert.	Maximum Dimensions, Inches: Overall Length	Maximum Dimensions, Envelope Dia. or Diagonal	Maximum Dimensions, Width	Maximum Dimensions, Height	Neck Length, Inches	Minimum Screen Size, Inches
Black-and-White Types (Cont'd)																
21CXP4	G	Yes	FG	2500	2000	E	M	90	85	68	18 3/4	21 1/2	20 5/8	16 1/2	5 1/2	19 1/16 x 15 1/16
21CZP4	See 21DEP4-A/21DEP4/21CZP4.															
21DAP4	G	Yes	FG	2500	2000	E	M	110	105	87	15	21 1/2	20 3/8	16 1/2	5 9/16	19 5/16 x 15 1/16
21DEP4	See 21DEP4-A/21DEP4/21CZP4.															
21DEP4-A	See 21DEP4-A/21DEP4/21CZP4.															
21DEP4-A/21DEP4/21CZP4	G	Yes	FG	2500	2000	E	M	110	105	87	15	21 1/2	20 3/8	16 1/2	5 7/16	19 1/16 x 15 1/16
21DFP4	G	Yes	FG	2500	1700	E	M	110	105	87	14 3/4	21 1/2	20 3/8	16 1/2	5 7/16	19 1/16 x 15 1/16
21DLP4	G	Yes	FG	2500	2000	E	M	90	85	68	17 3/4	21 1/2	20 3/8	16 1/2	4 1/2	19 1/16 x 15 1/16
21DSP4	G	Yes	FG	2500	2000	E	M	90	85	68	18 3/4	21 1/2	20 3/8	16 1/2	5 1/2	19 1/16 x 15 1/16
21EP4	G	No	Same as 21EP4-A, except has no external conductive coating.													
21EP4-A	G	No	Same as 21EP4-B, except has non-aluminized screen.													
21EP4-B	G	Yes	FG**	750	500	M	M	70	65	50	23 3/8	21 11/32	20 3/8	15 11/16	7 15/32	19 1/8 x 13 7/8
21EQP4	G	Yes	FG	2500	2000	E	M	110	105	87	12 7/8	21 1/2	20 3/8	16 1/2	3 9/16	19 1/16 x 15 1/16
21FP4-A	G	No	Same as 21FP4-C, except has non-aluminized screen.													
21FP4-C	G	Yes	FG**	750	500	E	M	70	65	50	23 3/4	21 11/32	20 3/8	15 11/16	7 15/32	19 1/8 x 13 7/8
21MP4	M	No	FFG	None	None	E	M	70	66	50	22 5/8	21	19 27/32	15 7/16	2 1/2	18 1/4 x 13 11/16
21WP4	G	No	Same as 21WP4-A, except has non-aluminized screen.													
21WP4-A	G	Yes	FG	750	500	M	M	70	66	50	22 13/16	20 13/16	18 13/16	15 1/16	7 1/2	17 3/8 x 13 3/8
21XP4-A	G	Yes	FG	2500	2000	E	M	70	66	50	22 13/16	20 13/16	18 13/16	13 1/16	7 1/2	17 3/8 x 13 5/8
21YP4	G	No	Same as 21YP4-A, except has non-aluminized screen.													
21YP4-A	G	Yes	FG	750	500	E	M	70	65	50	23 13/32	21 11/32	20 3/8	15 1/16	7 1/2	19 1/16 x 14 3/16
21ZP4-A	G	No	Same as 21ZP4-B, except has non-aluminized screen.													
21ZP4-B	G	Yes	FG	750	500	M	M	70	65	50	23 13/32	21 11/32	20 3/8	15 11/16	7 1/2	19 1/16 x 14 3/16
24ADP4	See 24ADP4/24VP4-A/24CP4-A/24TP4.															
24ADP4/24VP4-A/24CP4-A/24TP4	G	Yes	FG	2500	2000	M	M	90	85	68	21 3/4	24 1/4	22 13/16	18 9/16	7 1/2	21 7/16 x 16 7/8
24AEP4	G	Yes	FG	2500	2000	E	M	90	85	68	19 1/2	24 1/8	22 13/16	18 9/16	5 1/2	21 7/16 x 16 7/8
24AHP4	G	Yes	FG	2500	2000	E	M	110	105	87	16 11/16	24 1/8	22 13/16	18 9/16	5 7/16	21 7/16 x 16 7/8
24AUP4	G	Yes	FG	2500	1700	E	M	90	85	68	18 1/2	24 1/8	22 13/16	18 9/16	4 1/2	21 7/16 x 16 7/8
24BAP4	G	Yes	FG	2500	2000	E	M	110	105	87	16 3/16	24 1/8	22 13/16	18 9/16	5 7/16	21 7/16 x 16 7/8
24CP4-A	See 24ADP4/24VP4-A/24CP4-A/24TP4.															
24DP4-A	See 24DP4-A/24YP4.															
24DP4-A/24YP4	G	Yes	FG	2500	2000	E	M	90	85	68	21 1/2	24 1/8	22 13/16	18 9/16	7 1/2	21 7/16 x 16 7/8
24TP4	See 24ADP4/24VP4-A/24CP4-A/24TP4.															
24VP4-A	See 24ADP4/24VP4-A/24CP4-A/24TP4.															
24YP4	See 24DP4-A/24YP4.															
27EP4	G	Yes	FG	None	None	M	M	90	85	69	23 7/16	27	25 13/32	20 13/32	7 1/2	24 1/4 x 18 1/2
27MP4	M	Yes	FFG	None	None	M	M	90	85	69	22 3/16	27 1/8	25 7/16	20 1/2	7 1/2	23 7/16 x 18 1/4
27RP4	G	Yes	FG	2500	500	M	M	90	85	68	23 7/16	27	25 13/32	20 13/32	7 1/2	24 1/4 x 18 1/2

Light face = Discontinued type.
G = Glass rectangular.
M = Metal rectangular.
CL = Clear glass.
FFG = Frosted Filterglass.
FG = Filterglass.
M = Magnetic.
E = Electrostatic.
(G) = Glass round.
(M) = Metal round.

Notes:
Unless otherwise noted all picture tubes shown have 6.3-volt, 600-milliampere heaters.

▫ 2.5-volt, 2.1-ampere heater.

▫ 3.4-volt, 850-milliampere heater.

♦ 6.3-volt, 1.8-ampere heater (three 600 milliampere heaters paralleled internally).

◗ Spherical, unless otherwise specified.

** Cylindrical faceplate.

‡ At faceplate.

† At ultor tip-terminal.

■ Projection type.

** This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.

◎ Deflection factors (in ma.) for typical operating conditions shown:

D_1 & D_2 (square screen)	D_3 & D_4 (square base)
186 to 246	150 to 794

TERISTICS CHART (Cont'd)

High Voltage Terminal	Base	Maximum Ratings: Final High-Voltage Electrode (Ultor◆) Volts	Maximum Ratings: Focusing Electrode Volts	Maximum Ratings: Grid No. 2 Volts	Maximum Ratings: Grid No. 1 Volts	Maximum Ratings: Peak Heater-Cathode Volts H(−) During Warm-Up*	Maximum Ratings: Peak Heater-Cathode Volts H(−) After Warm-Up	Maximum Ratings: Peak Heater-Cathode Volts H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor◆) Volts	Typical Operating Conditions in Grid-Drive Service: Grid No. 2 Volts	Typical Operating Conditions in Grid-Drive Service: Focusing Electrode Volts	Typical Operating Conditions in Grid-Drive Service: Grid No. 1 Volts For Visual Extinction at Focused Raster	P-M Ion-Trap Magnet Min. Gausses	RCA Type
Black-and-White Types (Cont'd)														
Cavity Cap	H	20000◆	+1000◆ −500◆	64◆	+140◆	410	180	180	18000◆	50◆	0 to +350◆	+32 to +47◆	None	21CXP4
See 21DEP4-A/21DEP4/21CZP4.														21CZP4
Cavity Cap	K	18000	+1000 −500	500	−140	410	180	180	16000	400	0 to +400	−36 to −94	None	21DAP4
See 21DEP4-A/21DEP4/21CZP4.														21DEP4
See 21DEP4-A/21DEP4/21CZP4.														21DEP4-A
Cavity Cap	K	20000	+1000 −500	500	−140	410	180	180	16000	400	0 to +500	−36 to −94	None	21DEP4-A/ 21DEP4/ 21CZP4
Cavity Cap	K	18000	+1000 −500	500	−140	—	180	180	14000 16000	300 400	0 to +400 0 to +400	−28 to −72 −36 to −94	None	21DFP4
Cavity Cap	H	20000	+1000 −500	500	−140	410	180	180	16000	300	0 to +400	−28 to −72	None	21DLP4
Cavity Cap	H	20000◆	+1000◆ −500◆	64◆	+140◆	410	180	180	16000◆	50◆	0 to +400◆	+30 to +45◆	None	21DSP4
Cavity Cap	F	Ratings and typical operating conditions are same as for type 21EP4-B.												21EP4
Ratings and typical operating conditions are same as for type 21EP4-B.														21EP4-A
Cavity Cap	A	18000	—	500	−125	410	180	180	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	21EP4-B
Cavity Cap	E	18000	650	550	−140	410	180	180	16000 18000	400 500	0 to +400 0 to +400	−34 to −63 −43 to −78	None	21EQP4
Ratings and typical operating conditions are same as for type 21FP4-C.														21FP4-A
Cavity Cap	H	18000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	21FP4-C
Metal Shell Lip	G	16000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	21MP4
Ratings and typical operating conditions are same as for type 21WP4-A.														21WP4
Cavity Cap	A	18000	—	500	−125	410	180	180	16000 18000	300 300	— —	−28 to −72 −28 to −72	33 35	21WP4-A
Cavity Cap	H	18000	+1000 −500	500	−125	410	180	180	16000 18000	300 300	−65 to +350 −70 to +395	−28 to −72 −28 to −72	33 35	21XP4-A
Ratings and typical operating conditions are same as for type 21YP4-A.														21YP4
Cavity Cap	H	18000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	21YP4-A
Ratings and typical operating conditions are same as for type 21ZP4-B.														21ZP4-A
Cavity Cap	A	18000	—	500	−140	410	180	180	16000 18000	300 300	— —	−28 to −72 −28 to −72	33 35	21ZP4-B
See 24ADP4/24VP4-A/24CP4-A/24TP4.														24ADP4
Cavity Cap	A	22000	—	500	−140	410	180	180	16000 18000	300 400	— —	−28 to −72 −37 to −96	33 35	24ADP4/ 24VP4-A/ 24CP4-A/ 24TP4
Cavity Cap	H	20000	+1000 −500	500	−140	410	180	180	16000 18000	300 400	−50 to +350 −50 to +350	−28 to −72 −36 to −94	None	24AEP4
Cavity Cap	K	20000	+1000 −500	500	−140	410	180	180	14000 16000	300 400	−50 to +350 −50 to +350	−28 to −72 −36 to −94	None	24AHP4
Cavity Cap	H	20000	+1000 −500	500	−140	410	180	180	18000	300	−75 to +400	−35 to −72	None	24AUP4
Cavity Cap	K	20000◆	+1000◆ −500◆	64◆	+140◆	—	180	180	16000◆ 20000◆	50◆ 64◆	0 to +400◆ 0 to +400◆	+32 to +47◆ +42 to +58◆	None	24BAP4
See 24ADP4/24VP4-A/24CP4-A/24TP4.														24CP4-A
See 24DP4-A/24YP4.														24DP4-A
Cavity Cap	H	20000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	24DP4-A/ 24YP4
See 24ADP4/24VP4-A/24CP4-A/24TP4.														24TP4
See 24ADP4/24VP4-A/24CP4-A/24TP4.														24VP4-A
See 24DP4-A/24YP4.														24YP4
Cavity Cap	F	20000	—	500	−140	410	180	180	16000	300	—	−28 to −72	38	27EP4
Metal Shell Lip	F	18000	—	500	−125	410	180	180	16000 16000	300 400	— —	−28 to −72 −37 to −96	33 33	27MP4
Cavity Cap	A	20000	—	500	−140	410	180	180	16000	300	—	−28 to −72	—	27RP4

◆ ULTOR is defined as the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.

§ Positive bias value = 0 volts; positive peak value = 2 volts.

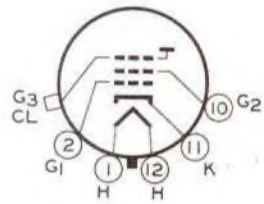
◆ Referred to grid No. 1—Cathode-Drive Service.

* During equipment warm-up not exceeding 15 seconds.

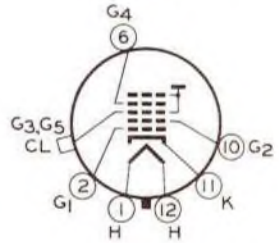
= Grid No. 2 connected to final high-voltage electrode within tube.

- Each gun.

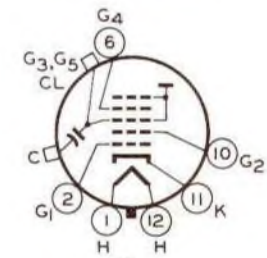
▲ This value has been specified to take care of the condition where an ac voltage is provided for dynamic focusing.



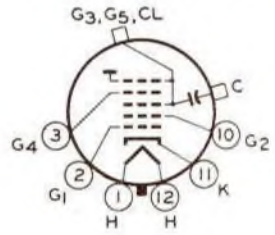
F
ULTOR = G_3 + CL



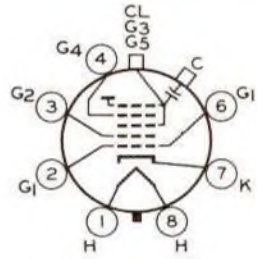
G
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



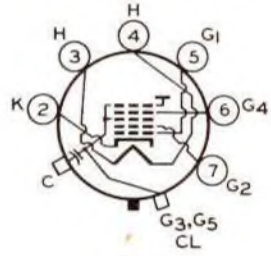
H
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



J
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



K
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4



L
ULTOR = G_3 + G_5 + CL
FOCUSING ELECTRODE = G_4

M
ULTOR = G_5 + G_6 + CL
FOCUSING ELECTRODE = G_3

N
ULTOR = G_4 + G_5 + CL
FOCUSING ELECTRODE = G_3

RCA Type	Envelope	Aluminized Screen	Faceplate◇	External Conductive Coating: Max.	External Conductive Coating: Min.	Focusing Method	Deflection Method	Approx. Deflection Angle Degrees: Diag.	Approx. Deflection Angle Degrees: Horiz.	Approx. Deflection Angle Degrees: Vert.	Maximum Dimensions Inches: Over-all Length	Maximum Dimensions Inches: Envelope Diameter or Diagonal	Maximum Dimensions Inches: Width	Maximum Dimensions Inches: Height	Neck Length Inches	Minimum Screen Size Inches
Color Types																
15GP22••♦	G	Yes	CL	3000	1500	E	M	—	45	35	26 1/8	14 25/32‡	—	—	10 3/8	11 1/2 x 8 3/8
21AXP22♦	M	Yes	FG	None	None	E	M	—	70	55	25 5/16	20 1/16 f	—	—	9 21/32	19 1/16 x 15 1/4
21AXP22-A♦	M	Yes	FG	None	None	E	M	—	70	55	25 5/16	20 1/16 f	—	—	9 21/32	19 1/16 x 15 1/4
21AXP22-A/ 21AXP22♦	M	Yes	FG	None	None	E	M	—	70	55	25 5/16	20 1/16 ‡	—	—	9 21/32	19 1/3 x 15 1/2
21CYP22♦	G	Yes	FG	2500	2000	E	M	—	70	55	25 13/32	20 15/16	—	—	9 3/8	19 3/4 x 15 1/2

Light face = Discontinued type.
G = Glass rectangular.
M = Metal rectangular.
CL = Clear glass.
FFG = Frosted Filterglass.
FG = Filterglass.
M = Magnetic.
E = Electrostatic.
(G) = Glass round.
(M) = Metal round.

Note:
Unless otherwise noted all picture tubes shown have 6.3-volt, 600-milliampere heaters.

‡ 2.5-volt, 2.1-ampere heater.

f 8.4-volt, 450-milliampere heater.

♦ 6.3-volt, 1.8-ampere heater (three 600-milliampere heaters paralleled internally).

◇ Spherical, unless otherwise specified.

•• Cylindrical faceplate. ; At faceplate.

‡ At ultor lip terminal. ■ Projection type.

•• This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.

◇ Deflection factors (dc m.) for typical operating conditions shown:

D_1 & D_2 (nearest screen)	D_3 & D_4 (nearest base)
188 to 248	150 to 204

M
ULTOR = G_5 + G_6 + CL
FOCUSING ELECTRODE = G_3

N
ULTOR = G_4 + G_5 + CL
FOCUSING ELECTRODE = G_3

Type	Envelope	Aluminized Screen	Faceplate	External Conductive Coating Max. (in.²)	External Conductive Coating Min. (in.²)	Focusing Method	Deflection Method	Approx. Deflection Angle, Degrees Diag.	Approx. Deflection Angle, Degrees Horiz.	Approx. Deflection Angle, Degrees Vert.	Maximum Dimensions, Inches Overall Length	Maximum Dimensions, Inches Envelope Dia. or Diagonal	Maximum Dimensions, Inches Width	Maximum Dimensions, Inches Height	Neck Length, Inches	Minimum Screen Size, Inches
Color Types																
15GP22◆	G	Yes	CL	3000	1500	E	M	—	45	35	26 1/8	14 20/32‡	—	—	10 3/4	11 1/2 x 8 5/8
21AXP22◆	M	Yes	FG	None	None	E	M	—	70	55	25 3/16	20 11/16†	—	—	9 31/32	19 1/16 x 15 1/4
21AXP22-A◆	M	Yes	FG	None	None	E	M	—	70	55	25 1/16	20 15/16‡	—	—	9 31/32	19 1/16 x 15 1/4
21AXP22-A/ 21AXP22◆	M	Yes	FG	None	None	E	M	—	70	55	25 3/16	20 11/16†	—	—	9 31/32	19 1/4 x 15 1/2
21CYP22◆	G	Yes	FG	2500	2000	E	M	—	70	55	25 13/32	20 11/16	—	—	9 3/4	19 1/4 x 15 1/2

Light face = Discontinued type
G = Glass rectangular.
M = Metal rectangular.
CL = Clear glass.
FFG = Frosted Filterglass.
FG = Filterglass.
M = Magnetic.
E = Electrostatic.
(G) = Glass round.
(M) = Metal round.

Note:
Unless otherwise noted all picture tubes shown have 6.3-volt, 600-milliampere heaters.

□ 2.5-volt, 2.1-ampere heater.

◢ 8.4-volt, 450-milliampere heater.

◆ 6.3-volt, 1.8-ampere heater (three 600-milliampere heaters paralleled internally).

○ Spherical, unless otherwise specified.

** Cylindrical faceplate.

‡ At faceplate.

† At ultor lip-terminal.

■ Protection type.

** This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.

(1) Deflection factors (deltin.) for typical operating conditions shown:

D1 & D2 (square neck)	D1 & D2 (square base)
186 to 266	158 to 284

TECHNICAL PUBLICATIONS

ELECTRON TUBES—

• **RCA TUBE HANDBOOK**—HB-3 (7⅜" x 5¼"). Five deluxe 2-inch-capacity black binders imprinted in gold. The bible of the industry — contains over 4200 pages of loose-leaf data and curves on RCA receiving tubes; picture tubes; oscillograph tubes; special-purpose kinescopes; photosensitive devices including phototubes, photoconductive cells, photojunction cells, and camera tubes; storage tubes; gas tubes; and other miscellaneous types for special applications. Available on subscription basis. Price $17.50 including service for first year. Also available with HB-10 Semiconductor Products Handbook at special combination price of $20.00.* Write to Commercial Engineering for descriptive folder and order form.

• **RCA RECEIVING TUBE MANUAL**—RC-19 (8¼" x 5¾")—384 pages. Revised and expanded. Contains technical data on more than 625 receiving types. Features tube theory written for the layman, application information and a circuit section. Features lie-flat binding. Price 75 cents.*

• **RADIOTRON DESIGNER'S HANDBOOK**—4th Edition (8¾" x 5½")—1500 pages. Comprehensive reference thoroughly covering the design of radio and audio circuits and equipment. Written for the design engineer, student, and experimenter. Contains 1000 illustrations, 2500 references, and cross-referenced index of 7000 entries. Edited by F. Langford-Smith of Amalgamated Wireless Valve Company Pty. Ltd. in Australia. Price $7.00.*

• **RCA TRANSMITTING TUBES**—TT-4 (8⅜" x 5⅜")—256 pages. Contains basic information on generic tube types, on tube parts and materials, and on tube insulation and application. Includes technical data and curves for power tubes having plate-input ratings up to 4 kilowatts, and data for associated rectifier tubes. Contains sections on transmitter-design considerations, rectifier circuits and filters, and circuit diagrams for transmitting and industrial applications. Features lie-flat binding. Price $1.00.*

• **RCA POWER AND GAS TUBES**—PG-101D (10⅞" x 8⅜")—32 pages. Technical information on over 175 RCA vacuum power tubes, rectifier tubes, thyratrons, and ignitrons. Includes terminal connections. Price 30 cents.*

• **RCA RECEIVING-TYPE TUBES FOR INDUSTRY AND COMMUNICATIONS**—RIT-104B (10⅞" x 8⅜")—32 pages. Technical data on 190 RCA "special red" tubes, premium tubes, computer tubes, pencil tubes, glow-discharge tubes, small thyratrons, low-microphonic amplifier tubes, traveling-wave tubes, and other special types. Price 30 cents.*

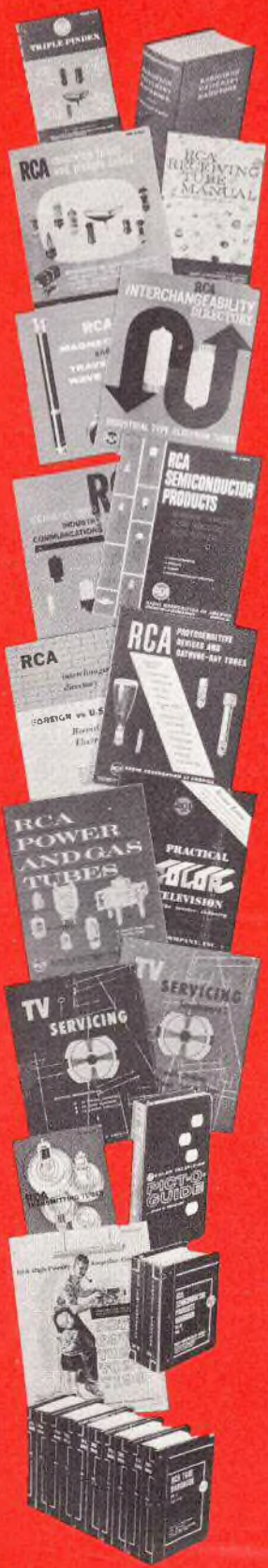
• **RCA RECEIVING TUBES AND PICTURE TUBES**—1275J (10⅞" x 8⅜")—48 pages. New, enlarged, and up-to-date booklet contains classification chart, characteristics chart, and base and envelope connection diagrams on more than 900 entertainment receiving tubes and picture tubes. Price 35 cents.*

• **RCA PREFERRED TYPES LIST**—PTL-501G (10⅞" x 8⅜")—8 pages. Lists RCA Preferred Tube Types both receiving and non-receiving by function. An aid in the selection of tube types for new equipment design. Single copy free on request.

• **RCA INTERCHANGEABILITY DIRECTORY OF INDUSTRIAL-TYPE ELECTRON TUBES**—ID-1020B (10⅞" x 8⅜")—24 pages. Lists more than 2700 type designations of 33 different manufacturers; shows the RCA Direct Replacement Type or the RCA Similar Type, when available. Price 25 cents.*

• **RCA PHOTOSENSITIVE DEVICES AND CATHODE-RAY TUBES**—CRPD-105A (10⅞" x 8⅜")—32 pages. Technical information on 134 RCA tubes including single-unit, twin-unit, and multiplier phototubes; camera and image-converter tubes; flying-spot tubes; monitor, projection, transcriber, and view-finder kinescopes; oscillograph and storage tubes. Price 30 cents.*

• **RCA MAGNETRONS AND TRAVELING-WAVE TUBES**—MT-301A (10⅞" x 8⅜")—48 pages. Operating theory for magnetrons and traveling-wave tubes, application considerations, and techniques for measurement of electrical parameters. Price 50 cents.*



• **RCA TRIPLE PINDEX**—PINDEX-109 (8¼" x 5¼")—240 pages. Gives base diagrams for more than 2000 JEDEC-registered receiving types including picture tubes. Base diagrams of over 1500 receiving types are presented in triplicate to provide the user with any three base diagrams at any one time. More than 200 small industrial-receiving types and more than 200 foreign receiving types are cross-referenced to the receiving-tube section for base diagrams. Price $1.75.*

• **RCA INTERCHANGEABILITY DIRECTORY OF FOREIGN vs U.S.A. RECEIVING-TYPE ELECTRON TUBES**—ICE-197 (8⅜" x 10⅞")—4 pages. Covers approximately 450 foreign tube types used principally in AM and FM radios, TV receivers, and audio amplifiers. Indicates U.S.A. direct replacement type or similar type if available. Single copy free on request.

• **RCA HIGH-FIDELITY AMPLIFIER CIRCUITS BOOKLET**—HF-110 (8⅜" x 10⅞")—28 pages. Includes circuit diagrams with parts lists, design considerations and performance requirements, and characteristics chart of RCA high-fidelity tube types. For hobbyists, technicians, and others interested in construction of their own high-fidelity amplifier systems. Price 35 cents.*

• **RCA COLOR TELEVISION PICT-O-GUIDE**—(9⅝" x 5⅜")—200 pages. Developed and written by John R. Meagher RCA's nationally recognized authority on practical TV servicing. Prepared to aid TV technicians in trouble-shooting and adjusting color TV receivers. Color photographs are included to assist in recognizing and understanding visible symptoms of troubles and misadjustments. Price $4.50.*

• **TV SERVICING**—TVS-1030 (10⅞" x 8⅜")—48 pages. Contains articles on TV trouble shooting, TV tuner alignment, and TV circuit analysis by RCA's expert in the field of TV servicing and test equipment—John R. Meagher. Price 35 cents.*

• **TV SERVICING, SUPPLEMENT 1.**—TVS-1031 (10⅞" x 8⅜")—12-page booklet by John R. Meagher on solving trouble-shooting problems in those hard-to-service TV receivers known to service technicians as "tough" sets or "dogs". Price 15 cents.*

• **PRACTICAL COLOR TELEVISION**—Revised Edition (11" x 8½")—84 pages. Black-and-white and color illustrations. Comprehensive information on color principles, color signal, color camera, and color picture tubes. Covers commercial receiver circuit using the RCA-15GP22 color picture tube, as well as installation and service of color receivers. Provides detailed description of color-test equipment. Price $2.00.*

• **PRACTICAL COLOR TELEVISION, SUPPLEMENT 1.**—(11" x 8½")—36 pages. Describes theory, operation and servicing of large-screen color TV receiver using RCA-21AXP22. Has 55 black-and-white and color illustrations, wave-forms, and explanations of color circuits and adjustments. Price 75 cents.*

TRANSISTORS AND SILICON RECTIFIERS—

• **RCA SEMICONDUCTOR PRODUCTS HANDBOOK**—HB-10 (7⅜" x 5⅝"). Deluxe 2⅞-inch capacity red binder imprinted in gold. Contains over 400 pages of loose-leaf data and curves on semiconductor devices such as germanium transistors, silicon transistors, and silicon rectifiers. Available on subscription basis. Price $5.00* including service for one year. Also available with HB-3 Tube-Handbook at special combination price of $20.00.* Write to Commercial Engineering for descriptive folder and order form.

• **RCA SEMICONDUCTOR PRODUCTS**—SCD-108B (10⅞" x 8⅜")—40 pages. Contains technical data on RCA transistors and silicon rectifiers. Includes an interchangeability directory which lists over 1100 types of 29 different manufacturers, and a section on circuits containing 37 schematics illustrating some of the more important applications of these devices. Price 30 cents.*

*Prices shown apply in U.S.A. and are subject to change without notice.

Copies of the publications listed above may be obtained as follows:

ELECTRON TUBES

From your RCA Tube Distributor

or

From RCA, Commercial Engineering, Electron Tube Division, Harrison, New Jersey

TRANSISTORS, SILICON RECTIFIERS

From your RCA Transistor Distributor

or

From RCA, Commercial Engineering, Semiconductor and Materials Division, Somerville, New Jersey