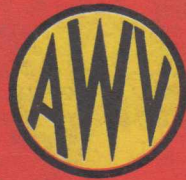




AWV TRANSISTORS



AWV offers a comprehensive line of superior-quality germanium p-n-p transistors for RF, IF, AF, and switching service in industrial, electronic computer, and entertainment applications.



2N217

For large-signal af amplifier service. In class B push-pull, two 2N217's can deliver a maximum signal power output of approximately 160 milliwatts.



2N218

For 455-Kc/s intermediate - frequency amplifier applications in transistorized portable radios and automobile radios operating from either a 6.3- or 12.6-volt supply.



2N219

For converter and mixer-oscillator applications in standard AM broadcast-band transistorized portable radios and automobile radios operating from either a 6.3- or 12.6-volt supply.



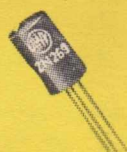
2N220

Extremely low-noise type for use in pre-amplifier or input stages of transistorized audio amplifiers operating from extremely small input signals.



2N247

Drift type. For radio-frequency amplifier use in the AM broadcast band and up into the short-wave bands. Has 4 flexible leads—4th lead connected to case internally for shielding.



2N269

For low-level, medium speed, on-off control applications such as in flip-flop and gating circuits.



2N358

N.P.N. type medium speed, high current switching transistor with alpha cutoff 9 Mc/s.



2N370

Drift type. For use as rf amplifier in short-wave receivers. Controlled for input and output impedance values, and for power gain, to insure unit to unit interchangeability. Has 4 leads—4th lead connected to case internally for shielding.



2N371

Drift type. For rf oscillator service in all-wave portable receivers. Used with 2N370 and 2N372, it provides complete complement for high-gain rf tuners. Has 4 flexible leads—4th lead connected to case internally for shielding.



2N372

Drift type. For rf mixer service in all-wave portable receivers. Intended for use with 2N370 and 2N371 in rf tuner complement. Has 4 flexible leads—4th lead connected to case internally for shielding.



2N373

Drift transistor of PNP type for 455 Kc/s amplifier service. Power gain 34 dB without neutralizing.



2N374

Drift transistor for mixer-oscillator service conversion power gain is 40 dB at a frequency of 1 Mc/s.



2N410

For 455-Kc/s intermediate-frequency amplifier service in battery-operated portable radio receivers.



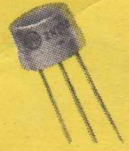
2N412

For converter (mixer-oscillator) service in battery-operated portable radio receivers operating in the standard AM broadcast band.



2N544

Drift transistor for amplifier service. In a neutralized amplifier circuit the power gain can be 30.4 dB at 1.5 Mc/s.



2N578

Designed for high-current switching circuits in industrial computers. Collector current —400mA, alpha cutoff 5 Mc/s.



2N579

Designed for high-current switching circuits in industrial computers. Collector current —400mA, alpha cutoff 8 Mc/s.



2N580

Designed for high-current switching circuits in industrial computers. Collector current —400mA, alpha cutoff 15 Mc/s.

**2N77**

For audio-frequency amplifier service such as hearing-aid applications.

**2N105**

For audio-frequency amplifier service such as hearing-aid applications. It is very small in size — only 0.135" in diameter with a maximum length (excluding flexible leads) of 0.255".

**2N176**

For audio frequency amplifiers particularly in automobile receivers. In class A service at a mounting flange temperature of 80°C an output power of 2 watts can be developed with a power gain of 35.5 dB.

**2N206**

For moderate-power audio-frequency amplifier service. Max. collector dissipation, 75 milliwatts.

**2N215**

For low-power audio applications. Only 0.240" in diameter with a maximum length (excluding flexible leads) of 0.455".

**2N270**

For large-signal af amplifier service. In class A, the 2N270 can deliver a max. signal power output of approx. 60 milliwatts. In class B push-pull, two 2N270's can deliver 500 milliwatts.

**2N301—2N301-A**

For audio-power stages requiring high output with low distortion at high power gain. In class A, using one 2N301, max. output approx. 5 watts; a pair can deliver 12 watts in class B push-pull.

**2N274**

Drift type. For use as rf amplifier in very compact commercial, mobile and communications equipment. Has 4 flexible leads—4th lead connected to case internally for shielding.

**2N351**

For audio frequency power amplifiers particularly in automobile receivers. Similar to 2N376 except that power gain is 35.5 dB; class A power output 4 watts.

**2N356**

NPN type medium speed, high current switching transistor with alpha cutoff 3 Mc/s.

**2N357**

NPN type medium speed, high current switching transistor with alpha cutoff 6 Mc/s.

**2N376**

For audio frequency amplifiers particularly in automobile receivers. In class A service at a mounting flange temperature of 80°C the transistor will, with a power gain of 35 dB, develop an output power of 4 watts.

**2N384**

VHF Drift type. For use as an oscillator up to 250 Mc/s in an rf amplifier in communications equipment or as pulse amplifier and high-speed switching device in computers. 100-Mc/s alpha cutoff frequency.

**2N398**

105-volt switching transistor for direct high-voltage control of "on-off" devices such as neon indicators, relays, incandescent lamp indicators, and indicating counter circuits.

**2N404**

Specifically designed for use in switching circuits of compact, medium-speed industrial electronic computers.

**2N406**

Designed for class A audio-frequency driver service in compact battery-operated portable radio receivers. Flexible lead type.

**2N408**

For class B push-pull power output stages of battery-operated portable radio receivers and audio amplifiers operating at power output levels of approximately 160 milliwatts.

**2N581**

PNP medium speed switching transistor. Director current transfer ratio is 30.

**2N582**

PNP high speed switching transistor. Alpha cutoff frequency 18 Mc/s.

**2N583**

Identical to 2N581 except for the size of the casing.

**2N584**

Identical to 2N582 except for the size of the casing.

**2N585**

N.P.N. high speed switching transistor. Collector-to-base voltage of 25 volts.

**2N586**

Low speed switching transistor for relay-actuating, voltage multi-vibrator ac-dc and power supply circuits. This transistor may also be used in large signal Class A, B push-pull audio frequency circuits.

AWV TRANSISTOR DATA CHART

GERMANIUM P-N-P ALLOY JUNCTION TYPES

TYPE	CLASS OF SERVICE	BASING OR LEAD ARRANGEMENT	MAXIMUM CASE DIMENSIONS Inches		MAXIMUM RATINGS				TYPICAL CHARACTERISTICS $T_a=25^\circ\text{C}$				
					Collector to base Volts	D.C. Emitter Current mA	▲ Dissipation at 25°C mW	Current Transfer Ratio at 1kc/s hfe	Cut-off Freq. f_{cb} Mc/s	Power Gain dB	Noise Factor dB	Freq. for Unity Power Amplification Mc/s.	Power Output Watts
2N77	Class A AF Amplifier	3 Flexible Leads	0.405	0.24	-4	-0.7	—	55	0.7	44.1	6.5	1.7	—
2N105	Class A AF Amplifier	3 Flexible Leads	0.255	0.135	-25	15	35	55	0.75	42	7.5	2.6	—
2N176	AF Power Amplifier	As for 2N301	1.531†	1.12†	-40	3000	10000‡	63■	—	35.5	—	—	2†
2N206	Class A AF Amplifier	3 Flexible Leads	0.405	0.24	-30	50	75	47	0.78	43	9	1.6	—
2N215	Class A AF Amplifier	3 Flexible Leads	0.455	0.24	-30	50	150	44	0.7	41	6.5	1.6	—
2N217	Large-Signal AF Amplifier	3 Flexible Leads	0.405	0.24	-25	70	150	65■	—	33§	—	—	0.16§
2N218	Class A 455 Kc/s Amplifier	3 Flexible Leads	0.405	0.24	-16	15	80	48	6.7	37.8	4.5	14	—
2N219	540-1640 Kc/s Converter	3 Flexible Leads	0.405	0.24	-16	15	80	75	10	32	—	16.5	—
2N220	Class A AF Amplifier	3 Flexible Leads	0.405	0.24	-10	2	50	65	0.85	43	6	2.05	—
2N247	Class A RF Amplifier	4 Flexible Leads*	0.375	0.36	-35	10	80	60	30	45	8	132	—
2N269	Low-Level Switch	3 Flexible Leads	0.405	0.24	-25	100	120	35■	4	For "on-off" control applications			
2N270	Large-Signal AF Amplifier	3 Flexible Leads	0.375	0.36	-25	150	250	70■	—	35§	—	—	0.5§
2N274	Class A RF Amplifier	4 Flexible Leads*	0.405	0.24	-35	10	80	60	30	45	8	132	—
2N301	AF Power Amplifier	2-Pin Base with Mounting Flange	1.531†	1.0†	-40	3000	11000‡	70■	—	30§	—	—	12§
2N301-A	AF Power Amplifier	As for 2N301	1.531†	1.12†	-40	3000	10000‡	65■	—	33.5	—	—	4†
2N356	Medium Speed Switch N-P-N	3 Flexible Leads	0.26	0.37	20	-500	100	30■	3	—	—	—	—
2N357	Medium Speed Switch N-P-N	3 Flexible Leads	0.26	0.37	20	-500	100	30■	6	—	—	—	—
2N358	Medium Speed Switch N-P-N	3 Flexible Leads	0.26	0.37	20	-500	100	30■	9	—	—	—	—
2N370	Class A RF Amplifier	4 Flexible Leads*	0.375	0.36	-20	10	80	60	30	50.5	—	132	—
2N371	RF Oscillator	4 Flexible Leads*	0.375	0.36	-20	10	80	60	30	—	—	132	—
2N372	RF Mixer	4 Flexible Leads*	0.375	0.36	-20	10	80	60	30	50.5	—	132	—
2N373	455 Kc/s Class A Amplifier	4 Flexible Leads*	0.375	0.360	-25	10	80	60	30	40†	—	—	—
2N374	Converter—AM Broadcast	4 Flexible Leads*	0.375	0.360	-25	10	80	60	30	40	—	—	—
2N376	AF Power Amplifier	As for 2N301	1.531†	1.12†	-40	3000	10000‡	78■	—	35	—	—	4†
2N384	VHF Amplifier	4 Flexible Leads*	0.405	0.24	-30	10	120	60	100	34	—	250	—
2N398	High-Voltage Switch	3 Flexible Leads	0.230	0.330	-105	100	50	60■	—105-Volt Collector Breakdown Voltage Rating.				
2N404	Low-Level Switch	3 Flexible Leads	0.230	0.330	-25	100	120	Max. DC	Collector-to-Emitter Saturation Voltage = -0.15 V				
2N406	Class A AF Driver Amplifier	3 Flexible Leads	0.405	0.24	-18	35	150	35	0.65	43	—	—	—
2N408	Large-Signal AF Amplifier	3 Flexible Leads	0.405	0.24	-20	70	150	65■	—	33§	—	—	0.16§
2N410	Class A 455 Kc/s Amplifier	3 Flexible Leads	0.405	0.24	-12	15	80	48	6.7	37.8	4.5	14	—
2N412	540-1640 Kc/s Converter	3 Flexible Leads	0.405	0.24	-12	15	80	75	10	32	—	16.5	—
2N544	RF Class A Amplifier	4 Flexible Leads*	0.375	0.36	-18	10	80	60	30	30.4†	—	—	—
2N578	High Current Switching	3 Flexible Leads	0.26	0.37	-20	400	120	15■	5	Turn on 0.9 μsec . Turn off 0.6 μsec .			
2N579	High Current Switching	3 Flexible Leads	0.26	0.37	-20	400	120	30■	8	Turn on 0.4 μsec . Turn off 0.5 μsec .			
2N580	High Current Switching	3 Flexible Leads	0.26	0.37	-20	400	120	45■	15	Turn on 0.2 μsec . Turn off 0.4 μsec .			
2N581	Medium Speed Switching	3 Flexible Leads	0.26	0.37	-18	100	80	30■	8	—	—	—	—
2N582	High Speed Switching	3 Flexible Leads	0.26	0.37	-25	100	120	60■	18	—	—	—	—
2N583	Medium Speed Switching	3 Flexible Leads	0.405	0.24	-18	100	80	30■	8	—	—	—	—
2N584	High Speed Switching	3 Flexible Leads	0.405	0.24	-25	100	120	60■	18	—	—	—	—
2N585	Medium Speed Switching N-P-N	3 Flexible Leads	0.26	0.37	25	-200	120	40■	5	—	—	—	—
2N586	Low Speed Switching	3 Flexible Leads	0.375	0.360	-45	250	250	55■	—	—	—	—	—

▲ Mean dissipation if averaged for time of 50 mSecs., otherwise to be considered as peak value. † Overall mounting flange dimensions. ‡ Useful gain—circuit neutralised. ■ D.C. transfer ratio (hFE). † At mounting flange temperature of 80°C . * One lead, connected internally to case, acts as a shield to minimize interlead capacitance and coupling to adjacent circuit components. § Two transistors. ‡ Measured in a single-tuned unilateralized circuit matched to the generator and load impedances for maximum transfer of power (transformer insertion losses not included).

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