

TWIN DIODE HIGH-MU TRIODE TYPES 3AV6, 6AV6 AND 12AV6

The 3AV6, 6AV6 and 12AV6 are 7-pin miniature duo-diode high-mu triode types designed for service as combined detector, amplifier, and automatic volume control tube in automobile and ac operated radio receivers. Coupling between the diode and triode sections is minimized by the use of internal shielding.

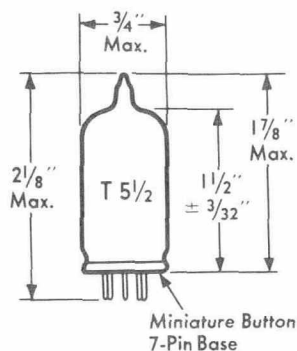
The 3AV6 has been designed for use in receivers which employ series-connected heaters, especially in television receivers where the picture-tube heater is in series with other heaters. When it is employed in this type of circuit with other tubes having a heater current rating of 600 ma., heater voltage surges across individual tubes are minimized inasmuch as the heater warm-up characteristic is controlled.

ELECTRICAL

Cathode.....	Coated Unipotential		
Heater:	3AV6	6AV6	12AV6
Voltage (ac or dc)	3.15	6.3	12.6
Current	0.60	0.30	0.15
Warm-up Time (Note 1)	11	~	~
Direct Interelectrode Capacitances (Unshielded):			
Triode Grid to Triode Plate		2.0	$\mu\mu\text{f}$
Triode Input		2.2	$\mu\mu\text{f}$
Triode Output		0.8	$\mu\mu\text{f}$
Diode 2 Plate to Triode Grid		0.04	max. $\mu\mu\text{f}$

MECHANICAL

Bulb	T-5½
Base	Small-Button Miniature 7-pin
Basing	7BT
Mounting Position	Any



MAXIMUM RATINGS

Design Maximum Values

Triode Plate Voltage	330	max.	Volts
Peak Heater-Cathode Voltage:			
Heater Positive with Respect to Cathode			
Total DC + Peak	200	max.	Volts
Heater Negative with Respect to Cathode			
DC Component	100	max.	Volts
DC + Peak	200	max.	Volts
Positive DC Grid Voltage	0	max.	Volts
Triode Plate Dissipation	0.55	max.	Watt
Diode Plate DC Current	1.0	max.	Ma.

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	100	250	Volts
Grid Voltage (Note 2)	-1	-2	Volts
Amplification Factor	100	100	-
Plate Resistance	80000	62500	Ohms
Transconductance	1250	1600	μmhos
Plate Current	0.5	1.2	Ma.

NOTES

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times rated heater voltage divided by rated heater current.
2. Grid bias for the triode unit may be obtained from a fixed source, such as a fixed-voltage tap on the dc power supply or from a cathode-bias resistor. Diode-biasing is not recommended because of the probability of plate-current cutoff.

