



6AV6

# TWIN DIODE-HIGH-MU TRIODE

7-PIN MINIATURE TYPE

6AV6

## GENERAL DATA

### Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) . . . . .	6.3 ± 10%	volts
Current . . . . .	0.3	amp

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield<sup>o</sup></i>	
<i>Triode Unit:</i>			
Grid to plate . . . . .	2	2	μf
Grid to cathode and heater . . .	2.2	2.2	μf
Plate to cathode and heater . . .	0.8	1.2	μf
Diode-No. 2 plate to triode grid .	0.04 max.	0.04 max.	μf

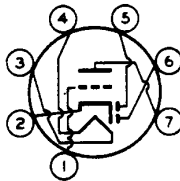
### Characteristics, Class A<sub>1</sub> Amplifier (Triode Unit):

Plate Voltage . . . . .	100	250	volts
Grid Voltage . . . . .	-1	-2	volts
Amplification Factor . . . . .	100	100	
Plate Resistance (Approx.) . . . . .	0.08	0.0625	megohm
Transconductance . . . . .	1250	1600	μmhos
Plate Current . . . . .	0.5	1.2	ma

### Mechanical:

- Operating Position . . . . . Any
- Maximum Overall Length . . . . . 2-1/8"
- Maximum Seated Length . . . . . 1-7/8"
- Length, Base Seat to Bulb Top (Excluding tip) . . . 1-1/2" ± 3/32"
- Diameter . . . . . 0.650" to 0.750"
- Dimensional Outline . . . . . See General Section
- Bulb . . . . . T5-1/2
- Base . . . . . Small-Button Miniature 7-Pin (JEDEC No. E7-1)
- Basing Designation for BOTTOM VIEW . . . . . 7BT

- Pin 1 - Triode Grid
- Pin 2 - Cathode
- Pin 3 - Heater
- Pin 4 - Heater



- Pin 5 - Diode Plate No. 2
- Pin 6 - Diode Plate No. 1
- Pin 7 - Triode Plate

### TRIODE UNIT — AMPLIFIER — Class A<sub>1</sub>

### Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE . . . . .	330 max.	volts
GRID VOLTAGE:		
Positive-bias value . . . . .	0 max.	volts
PLATE DISSIPATION . . . . .	0.55 max.	watt

← indicates a change.

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### PEAK HEATER—CATHODE VOLTAGE:

Heater negative with respect to cathode. . . . . 200 max. volts  
Heater positive with respect to cathode. . . . . 200<sup>▲</sup> max. volts

### Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED AMPLIFIER CHART No. 25*  
at front of this Section

### DIODE UNITS — Two

#### → Maximum Ratings, Design-Maximum Values:

PLATE CURRENT (For each diode) . . . . . 1 max. ma

#### → Characteristics:

*Values are for Each Unit*

Plate Current for plate volts = 10 . . . . . 2 ma

### Diode Considerations:

Consideration of these units, including typical circuits and diode curves, is given at the front of this Section. Diode biasing of the triode unit of the 6AV6 is not suitable.

<sup>o</sup> With external shield JEDEC No. 316 connected to cathode.

<sup>▲</sup> The dc component must not exceed 100 volts.

Curves for the triode unit of the 6AV6 are the same as those shown for Type 12AX7

→ Indicates a change.