

## Twin Diode—High-Mu-Twin Triode

### DUODECAR TYPE

#### Electrical:

##### Heater Characteristics and Ratings:

Voltage (AC or DC) . . . . .	6.3 ± 0.6 volts
Current at heater volts = 6.3 . . . . .	0.690 amp
Peak heater-cathode voltage (Each unit):	
Heater negative with respect to cathode.	200 max. volts
Heater positive with respect to cathode.	200 <sup>a</sup> max. volts

##### Direct Interelectrode Capacitances:<sup>b</sup>

###### Each Diode Unit:

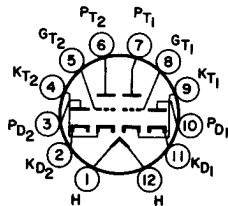
P <sub>D</sub> to (K <sub>D</sub> ,H) . . . . .	2.0	pf
K <sub>D</sub> to (P <sub>D</sub> ,H) . . . . .	5.5	pf

###### Each Triode Unit:

Grid to plate . . . . .	2.2	pf
Input: G <sub>T</sub> to (K <sub>T</sub> ,H) . . . . .	2.0	pf
Output: P <sub>T</sub> to (K <sub>T</sub> ,H) . . . . .	0.22	pf
G <sub>T</sub> to P <sub>D</sub> . . . . .	0.08 max.	pf
G <sub>T1</sub> to G <sub>T2</sub> . . . . .	0.01 max.	pf
P <sub>T1</sub> to P <sub>T2</sub> . . . . .	0.48	pf

#### Mechanical:

- Operating Position . . . . . Any
- Type of Cathodes . . . . . Coated Unipotential
- Maximum Overall Length . . . . . 1.875"
- Seated Length . . . . . 1.250" to 1.500"
- Diameter . . . . . 1.062" to 1.188"
- Dimensional Outline . . . . . See *General Section*
- Bulb . . . . . T9
- Base . . . . . Small-Button Duodecar 12-Pin (JEDEC No. E12-70)
- Basing Designation for BOTTOM VIEW . . . . . 12DA
- Pin 1—Heater
- Pin 2—Cathode of Diode Unit No.2
- Pin 3—Plate of Diode Unit No.2
- Pin 4—Cathode of Triode Unit No.2
- Pin 5—Grid of Triode Unit No.2
- Pin 6—Plate of Triode Unit No.2
- Pin 7—Plate of Triode Unit No.1
- Pin 8—Grid of Triode Unit No.1
- Pin 9—Cathode of Triode Unit No.1
- Pin 10—Plate of Diode Unit No.1
- Pin 11—Cathode of Diode Unit No.1
- Pin 12—Heater



# 6AY11

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

Plate Voltage. . . . .	250	volts
Grid Voltage . . . . .	-2.0	volts
Amplification Factor . . . . .	100	
Plate Resistance (Approx.) . . . . .	52700	ohms
Transconductance . . . . .	1900	$\mu$ mhos
Plate Current. . . . .	1.2	ma

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

*Values are for Each Unit*

### Maximum Ratings, Design-Maximum Values:

Plate Voltage. . . . .	330	volts
DC Grid Voltage:		
Negative . . . . .	50	volts
Positive . . . . .	0	volts
Plate Dissipation. . . . .	1	watt

## DIODE UNITS — Two

*Values are for Each Unit*

### Maximum Ratings, Design-Maximum Values:

Plate Current. . . . .	5 max.	ma
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### Characteristics, Instantaneous Value:

Plate Current for plate volts = 5. . . . .	18	ma
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<sup>a</sup> The dc component must not exceed 100 volts.

<sup>b</sup> without external shield.

