

# Twin Diode—High-Mu Triode

## 9-PIN MINIATURE TYPE

### GENERAL DATA

#### Electrical:

Heater, for Unipotential Cathodes:

|                               |           |       |
|-------------------------------|-----------|-------|
| Voltage (AC or DC) . . . . .  | 6.3 ± 10% | volts |
| Current at 6.3 volts. . . . . | 0.45      | amp   |

Direct Interelectrode Capacitances  
(Approx.):<sup>a</sup>

#### Triode Unit:

|                                       |      |     |
|---------------------------------------|------|-----|
| Grid to plate . . . . .               | 1.8  | μμf |
| Grid to cathode and heater. . . . .   | 1.5  | μμf |
| Plate to cathode and heater . . . . . | 0.16 | μμf |

#### Diode Units:

|                                                              |      |     |
|--------------------------------------------------------------|------|-----|
| Diode-No.1 plate to triode grid . . . . .                    | 0.05 | μμf |
| Diode-No.2 plate to triode grid . . . . .                    | 0.04 | μμf |
| Diode-No.1 cathode to all other<br>tube electrodes . . . . . | 4.6  | μμf |
| Diode-No.2 cathode to all other<br>tube electrodes . . . . . | 4.8  | μμf |
| Diode-No.1 plate to cathode and heater. . . . .              | 2.4  | μμf |
| Diode-No.2 plate to cathode and heater. . . . .              | 2.2  | μμf |

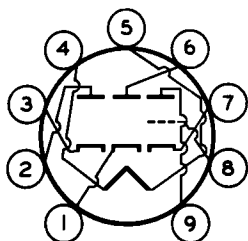
#### Characteristics, Class A<sub>1</sub> Amplifier (Triode Unit):

|                                     |       |       |
|-------------------------------------|-------|-------|
| Plate Voltage . . . . .             | 250   | volts |
| Grid Voltage. . . . .               | -3    | volts |
| Amplification Factor. . . . .       | 70    |       |
| Plate Resistance (Approx.). . . . . | 58000 | ohms  |
| Transconductance. . . . .           | 1200  | μmhos |
| Plate Current . . . . .             | 1     | ma    |

#### Mechanical:

|                                                         |                                          |
|---------------------------------------------------------|------------------------------------------|
| Operating Position. . . . .                             | Any                                      |
| Maximum Overall Length. . . . .                         | 2-3/16"                                  |
| Maximum Seated Length . . . . .                         | 1-15/16"                                 |
| Length, Base Seat to Bulb Top (Excluding tip) . . . . . | 1-9/16" ± 3/32"                          |
| Diameter. . . . .                                       | 0.750" to 0.875"                         |
| Dimensional Outline . . . . .                           | See <i>General Section</i>               |
| Bulb. . . . .                                           | T6-1/2                                   |
| Base. . . . .                                           | Small-Button Noval 9-Pin (JEDEC No.E9-1) |
| Basing Designation for BOTTOM VIEW. . . . .             | 9KR                                      |

- Pin 1—Diode-No.2  
Cathode  
Pin 2—Diode-No.1  
Plate  
Pin 3—Diode-No.1  
Cathode  
Pin 4—Heater



- Pin 5—Heater  
Pin 6—Diode-No.2  
Plate  
Pin 7—Triode  
Cathode  
Pin 8—Triode Grid  
Pin 9—Triode Plate



# 6FM8

## 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 . . . . .               | 1.1              | max. | watts |
| PEAK HEATER-CATHODE VOLTAGE:              |                  |      |       |
| Heater negative with respect to cathode . | 200              | max. | volts |
| Heater positive with respect to cathode . | 200 <sup>b</sup> | max. | volts |

## DIODE UNITS — Two

*Values are for Each Unit*

### Maximum Ratings, Design-Maximum Values:

|                                           |                  |      |       |
|-------------------------------------------|------------------|------|-------|
| PLATE CURRENT . . . . .                   | 5                | max. | ma    |
| PEAK HEATER-CATHODE VOLTAGE:              |                  |      |       |
| Heater negative with respect to cathode . | 200              | max. | volts |
| Heater positive with respect to cathode . | 200 <sup>b</sup> | max. | volts |

### Characteristics, Instantaneous Test Condition:

|                                             |    |    |
|---------------------------------------------|----|----|
| Plate Current for plate volts = 5 . . . . . | 20 | ma |
|---------------------------------------------|----|----|

<sup>a</sup> Without external shield.

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

