

# 6FM8

## 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 tube electrodes . . . . .	4.6	μμf
Diode-No.2 cathode to all other 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

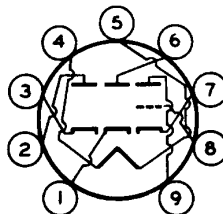
#### Characteristics, Class A<sub>1</sub> Amplifier (Triode Unit):

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



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

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

