



12FM6

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TWIN DIODE—MEDIUM-MU TRIODE

7-PIN MINIATURE TYPE

For use in automobile radio receivers operating directly from 6-cell storage-battery systems

GENERAL DATA**Electrical:**

Heater, for Unipotential Cathode:

Voltage range (AC or DC) 10 to 15.9 volts

This voltage range is on an absolute basis. For longest life, it is recommended that the heater be operated within the voltage range of 11 to 14 volts.

Current (Approx.)

at 12.6 volts 0.15 amp

Direct Interelectrode Capacitances

(Approx.):^oTriode grid to triode plate 1.7 $\mu\mu\text{f}$ Triode grid to cathode and heater 2.7 $\mu\mu\text{f}$ Triode plate to cathode and heater 1.7 $\mu\mu\text{f}$ Diode-No.1 plate to diode-No.2 plate 1.1 $\mu\mu\text{f}$ **Characteristics, Class A₁ Amplifier (Triode Unit):**

Heater Voltage 12.6 12.6 volts

Plate Voltage 12.6 12.6 volts

Grid Voltage 0 — volts

Grid Resistor (Bypassed) 0 2.2 megohms

Amplification Factor 13.5 10

Plate Resistance (Approx.) 5600 7700 ohms

Transconductance 2400 1300 μmhos

Plate Current 1.8 1 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" $\pm$ 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)

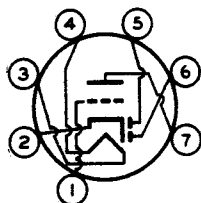
Basing Designation for BOTTOM VIEW 7BT

Pin 1—Triode Grid

Pin 2—Cathode

Pin 3—Heater

Pin 4—Heater



Pin 5—Diode-No.2 Plate

Pin 6—Diode-No.1 Plate

Pin 7—Triode Plate

^o Without external shield.

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TRIODE UNIT — AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE.	30 max.	volts
CATHODE CURRENT.	20 max.	ma
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	30 max.	volts
Heater positive with respect to cathode.	30 max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance.	10 max.	megohms
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DIODE UNITS — Two

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE CURRENT.	1 max.	ma
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Characteristics:

Heater Voltage	12.6	volts
Plate Current for plate volts = 10	2	ma