# MEDIUM-MU TRIODE

9-PIN MINIATURE TYPE

For use as rf amplifier in cathode-drive circuits of TV tuners covering range of 470-890 Mc

## GENERAL DATA

### Electrical:

- **Heater, for Unipotential Cathode:**
  - Voltage: 6.3 ac or dc volts
  - Current: 0.225 amp

- **Direct Interelectrode Capacitances (Approx.):**
  - Grid to plate: 1.6 µf
  - Grid to heater and cathode: 2.9 µf
  - Plate to heater and cathode: 0.26 µf
  - Heater to cathode: 2.7 µf

### Characteristics—Class A
d Amplifier:

- **Plate Supply Voltage:** 150 volts
- **Cathode-Bias Resistor:** 100 ohms
- **Amplification Factor:** 48
- **Plate Resistance:** 4800 ohms
- **Transconductance:** 10000 µhos
- **Grid Voltage (Approx.) for plate current of 10 µamp:** -10 volts
- **Plate Current:** 14.5 ma

### Mechanical:

- **Mounting Position:** Any
- **Maximum Overall Length:** 1-3/4"
- **Maximum Seated Length:** 1-1/2"
- **Length, Base Seat to Bulb Top (Excluding Tip):** 1-1/8" ± 3/32"
- **Maximum Diameter:** 7/8"
- **Bulb:** T-6-1/2
- **Base:** Small-Bulb Noval 9-Pin (JETEC No.E9-1)

Basing Designation for BOTTOM VIEW: 9DR

### AMPLIFIER—Class A
d

- **Pin 1—Plate**
- **Pin 2—Grid**
- **Pin 3—Grid**
- **Pin 4—Heater**
- **Pin 5—Heater**
- **Pin 6—Cathode**
- **Pin 7—Grid**
- **Pin 8—Grid**
- **Pin 9—Plate**

### Maximum Ratings, Design-Center Values:

- **PLATE VOLTAGE:** 250 max. volts
- **PLATE DISSIPATION:** 2.5 max. watts
- **CATHODE CURRENT:** 25 max. ma
- **PEAK HEATER-CATHODE VOLTAGE:**
  - Heater negative with respect to cathode: 75 max. volts
  - Heater positive with respect to cathode: 75 max. volts

*with no external shield.

**JUNE 14, 1954**

**TENTATIVE DATA**
MEDIUM-MU TRIODE

Maximum Circuit Values (For maximum rated conditions):

Grid-Circuit Resistance:
- For cathode-bias operation .............. 0.5 max. megalohm
- For fixed-bias operation ............... not recommended
AVERAGE PLATE CHARACTERISTICS

$E_f = 6.3$ VOLTS

PLATE MILLIAMPERES

PLATE VOLTS

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92CM-8241
AVERAGE CHARACTERISTICS

E\textsubscript{c} = 6.3 VOLTS
PLATE VOLTS = 150

GRID VOLTS

PLATE MILLIAMPERES

AMPLIFICATION FACTOR (A)

TRANSCONDUCTANCE (g\text{m}) MICROHOMS

-7 -6 -5 -4 -3 -2 -1 0

5 10 15 20 25 30 35 40

50 40 30 20

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