

6MN8

Compactron Triple Triode

• COLOR TV TYPE

• CHROMA MATRIXING AMPLIFIER

• LOW B+ OPERATION

The 6MN8 is a compactron triple triode intended for use as a chroma matrixing amplifier in color television receivers. Combining three triodes in one envelope allows one tube to drive all three picture tube guns.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC* 6.3 ± 0.6 Volts

Heater Current 0.9 Amperes

Direct Interelectrode Capacitances

| | Section 1 | Section 2 | Section 3 |
|-----------------------------------|-----------|-----------|-----------|
| Grid to Plate: (g to p) | 2.6 | 2.6 | 2.6 pf |
| Input: g to (h + k) | 4.6 | 4.6 | 4.6 pf |
| Output: p to (h + k) | 0.33 | 0.57 | 0.65 pf |

MECHANICAL

Operating Position - Any

Envelope - T-9, Glass

Base - E12-70, Button 12-Pin

Outline Drawing - EIA 9-60

| | | |
|-----------------------------------|-------|--------|
| Maximum Diameter | 1.188 | Inches |
| Minimum Diameter | 1.062 | Inches |
| Maximum Over-all Length | 2.875 | Inches |
| Maximum Seated Height | 2.500 | Inches |
| Minimum Seated Height | 2.250 | Inches |

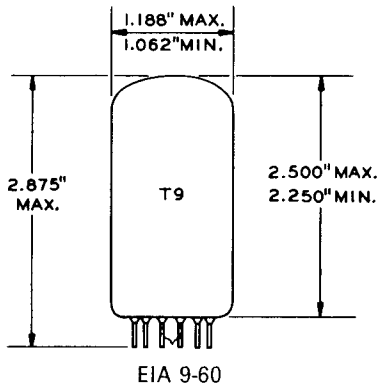
MAXIMUM RATINGS

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey electron tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of all other electron devices in the equipment.

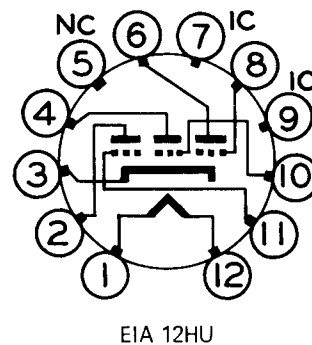
PHYSICAL DIMENSIONS



TERMINAL CONNECTIONS

- Pin 1 - Heater
- Pin 2 - Plate (Section 3)
- Pin 3 - Cathode
- Pin 4 - Plate (Section 2)
- Pin 5 - No Connection
- Pin 6 - Plate (Section 1)
- Pin 7 - Internal Connection - Do Not Use
- Pin 8 - Grid (Section 1)
- Pin 9 - Internal Connection - Do Not Use
- Pin 10 - Grid (Section 2)
- Pin 11 - Grid (Section 3)
- Pin 12 - Heater

BASING DIAGRAM



The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or elements. In the absence of an

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MAXIMUM RATINGS (Cont'd)**DESIGN-MAXIMUM VALUES, EACH SECTION**

| | | |
|---|-----|---------|
| Plate Voltage | 330 | Volts |
| Positive DC Grid Voltage..... | 0 | Volts |
| Plate Dissipation | 3.0 | Watts |
| Heater-Cathode Voltage | | |
| Heater Positive with respect to Cathode | | |
| DC Component | 100 | Volts |
| Total DC and Peak | 200 | Volts |
| Heater Negative with respect to Cathode | | |
| Total DC and Peak | 200 | Volts |
| Grid-Circuit Resistance | | |
| With Fixed Bias | 1.0 | Megohms |

CHARACTERISTICS AND TYPICAL OPERATION[▲]**CLASS A₁ AMPLIFIER, EACH SECTION**

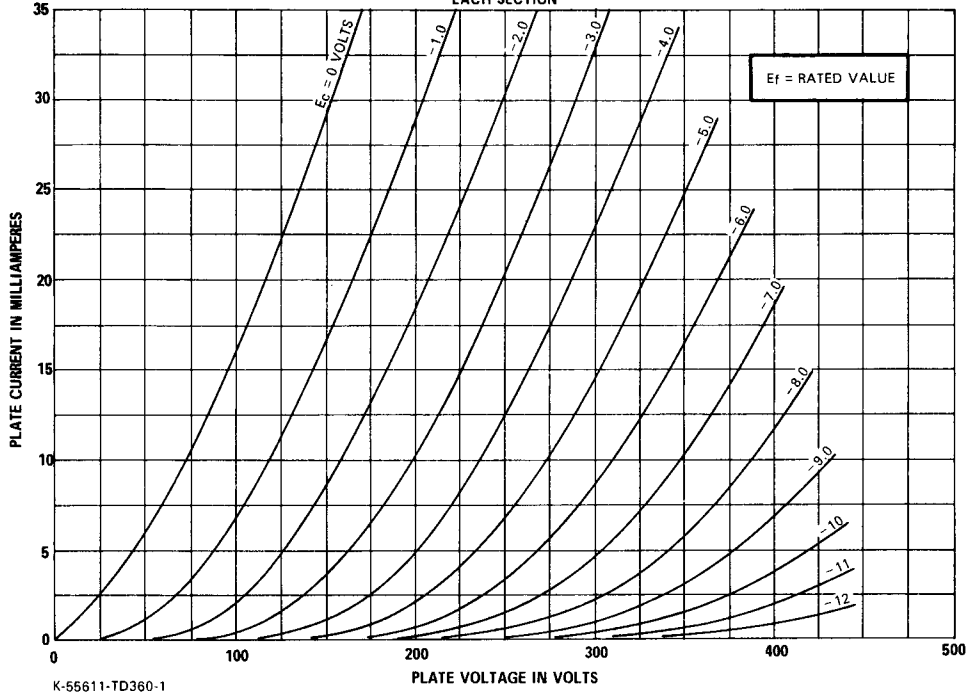
| | | | |
|--|-------|------|--------------|
| Plate Voltage | 200 | 125 | Volts |
| Grid Voltage | -4.0 | -1.0 | Volts |
| Amplification Factor | 40 | 47 | |
| Plate Resistance, approximate..... | 10000 | 6250 | Ohms |
| Transconductance | 4000 | 7500 | Micromhos |
| Plate Current | 4.8 | 11 | Milliamperes |
| Grid Voltage, approximate | | | |
| I _b = 50 Microamperes | -11 | -5 | Volts |

NOTES

- ★ The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
- Heater current of a bogey tube at E_f = 6.3 volts.
- ◆ Without external shield.
- ▲ Control grid to cathode spacing on this type is of such low order of magnitude as to preclude the use of voltage between these elements of more than 100 volts dc or peak ac in commercial tube checkers and short indicator devices, particularly where mechanical excitation of the tube is employed.

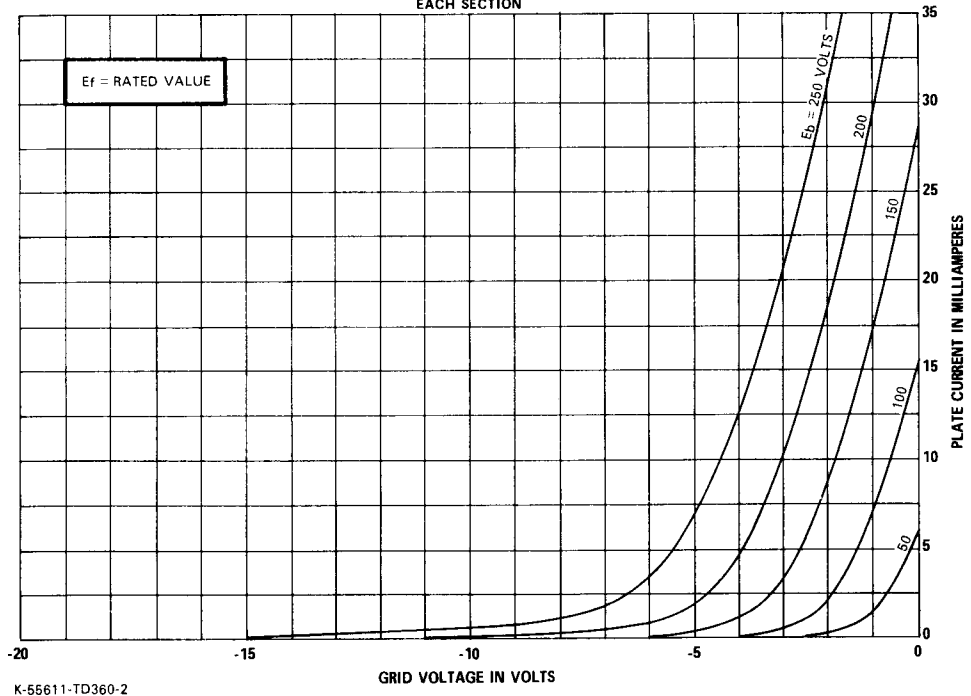
AVERAGE PLATE CHARACTERISTICS

EACH SECTION



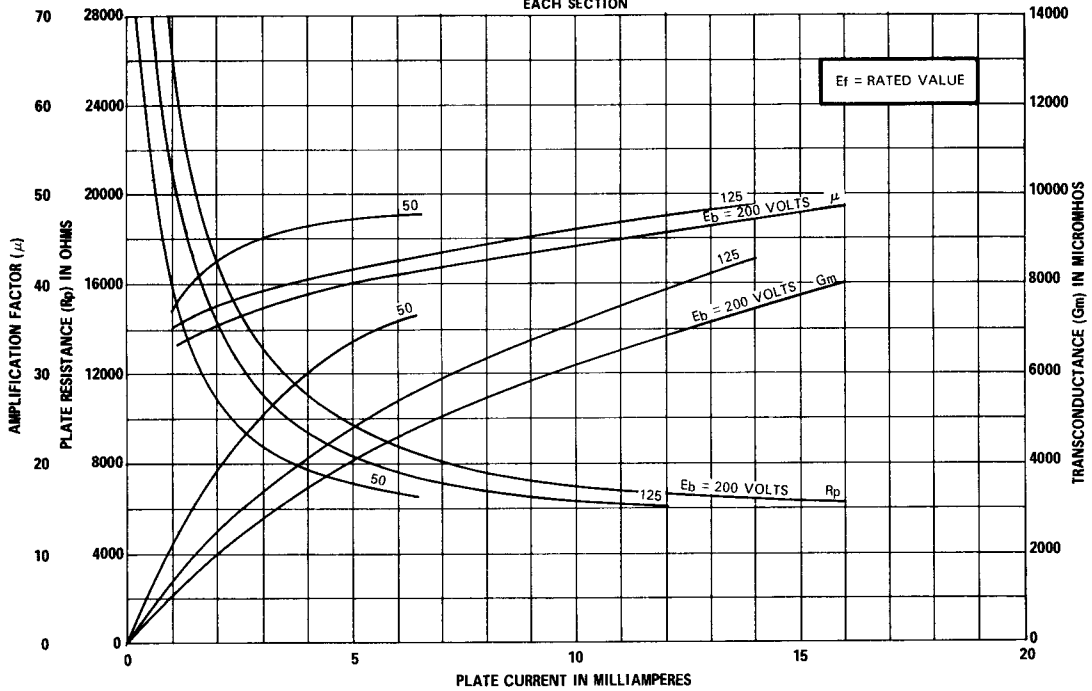
AVERAGE TRANSFER CHARACTERISTICS

EACH SECTION



AVERAGE CHARACTERISTICS

EACH SECTION



K-55611-TD360-3

TUBE PRODUCTS DEPARTMENT



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