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

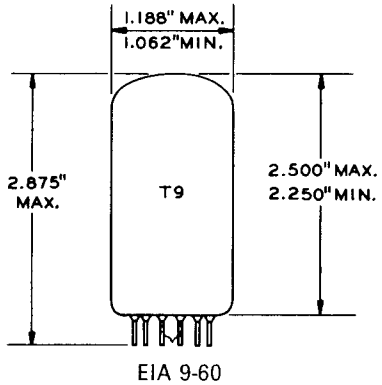
MAXIMUM RATINGS

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

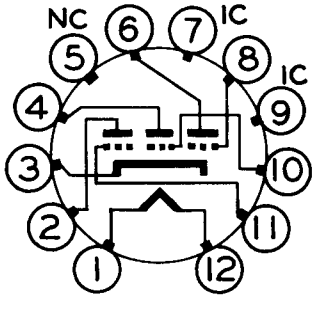


EIA 9-60

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



EIA 12HU

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 A_1 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			
Ib = 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.

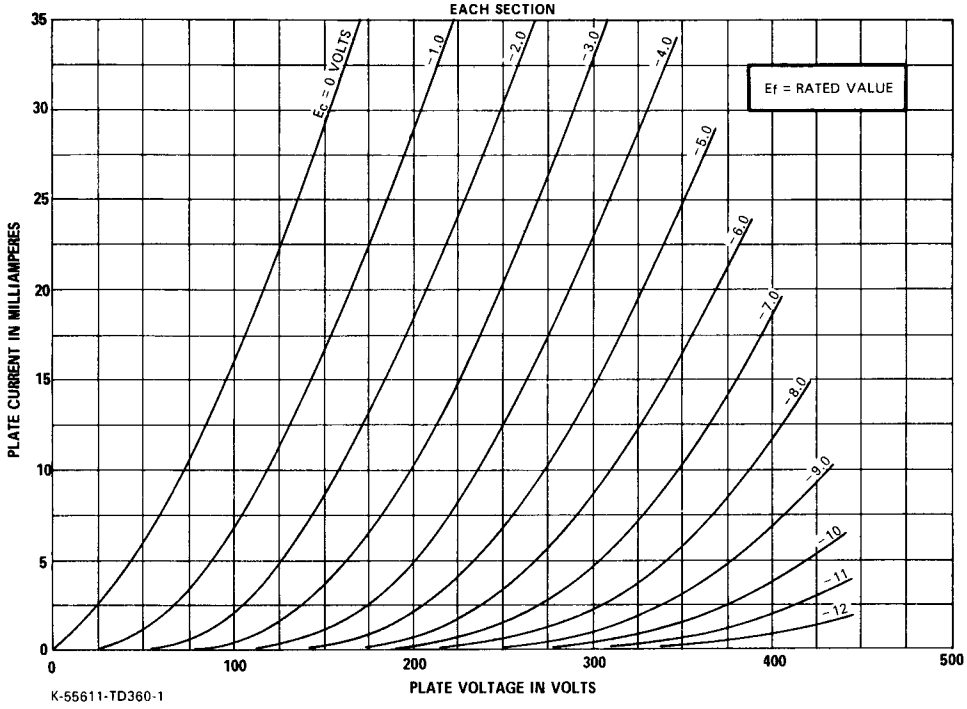
■ Heater current of a bogey tube at Ef = 6.3 volts.

♦ 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

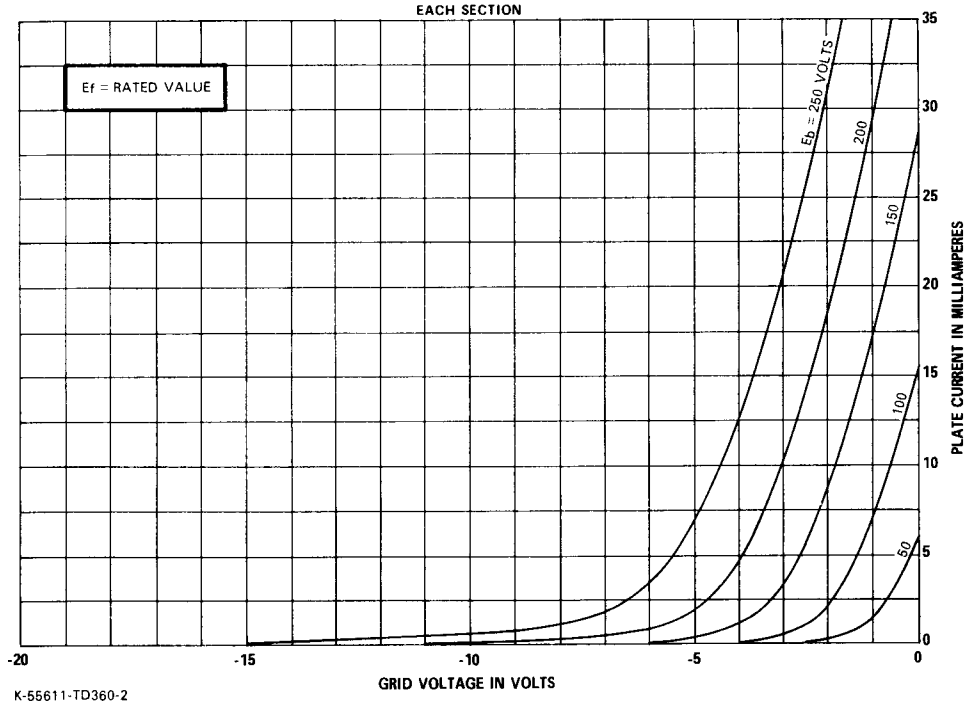
EACH SECTION



K-55611-TD360-1

AVERAGE TRANSFER CHARACTERISTICS

EACH SECTION



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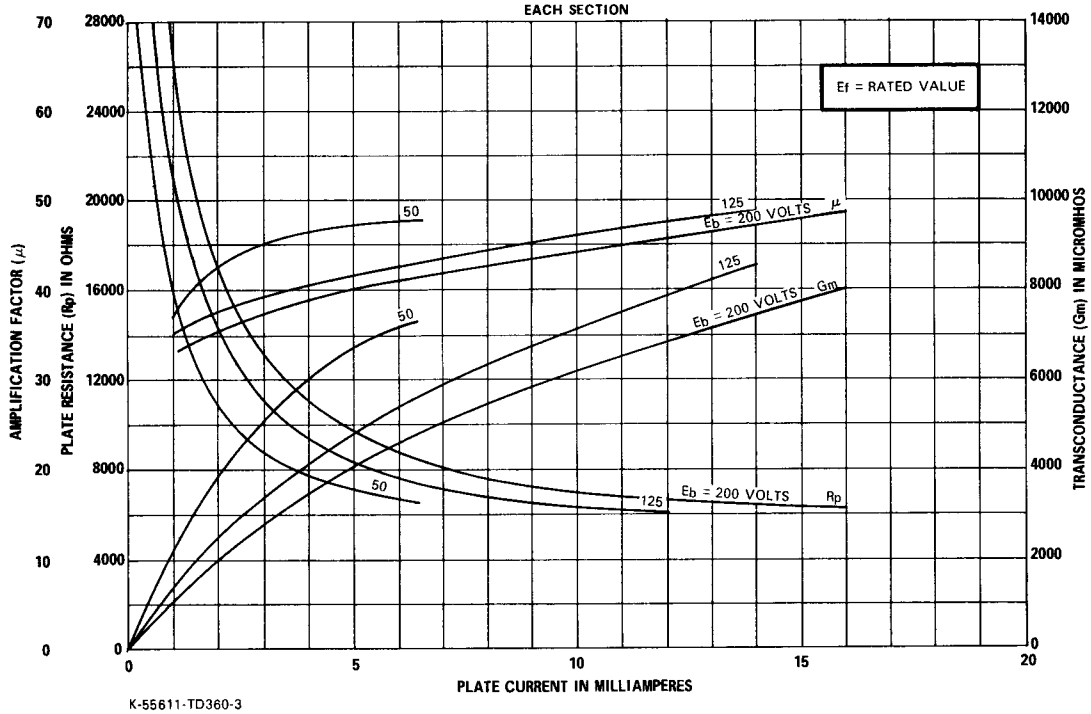
AVERAGE CHARACTERISTICS

EACH SECTION



K-55611-TD360-3

TUBE PRODUCTS DEPARTMENT

GENERAL ELECTRIC

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