Triple Triode

6MD8

■ COLOR TV TYPE ■ CHROMA MATRIXING AMPLIFIER ■ MEDIUM-MU ■ LOW B+ OPERATION

The 6MD8 is a medium-mu triple triode intended for use in the matrixing circuits of color television receivers. It can also be used in phase-inverter, multivibrator, and general-purpose amplifier applications.

The 6MD8 utilizes a T-9 bulb and features a 9-pin glass button base with a 0.687-inch pin circle.

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)	3.0	3.0	3.0	pf
Input: g to (h + k)	3.6	3.6	3.4	pf
Output: p to (h + k)	0.48	0.48	0.36	pf

MECHANICAL

Operating Position - Any
Envelope - T-9, Glass
Base - E9-89, Button 9-Pin
Outline Drawing - EIA 9-108

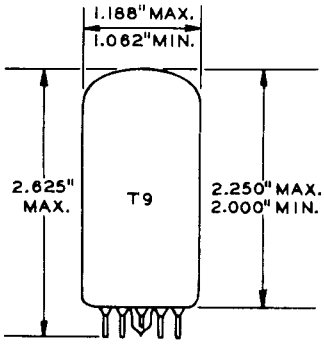
Maximum Diameter	1.188	Inches
Minimum Diameter	1.062	Inches
Maximum Over-all Length	2.625	Inches
Maximum Seated Height	2.250	Inches
Minimum Seated Height	2.000	Inches

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES, EACH SECTION

Plate Voltage	330	Volts
Positive DC Grid Voltage	0	Volts
Plate Dissipation, Each Plate	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

PHYSICAL DIMENSIONS

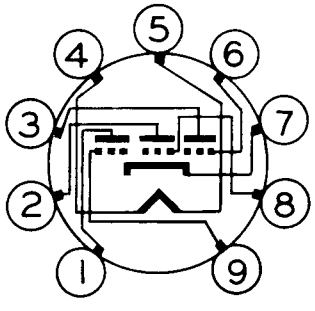


EIA 9-108

TERMINAL CONNECTIONS

Pin 1 - Plate (Section 3)
Pin 2 - Plate (Section 2)
Pin 3 - Plate (Section 1)
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Grid (Section 1)
Pin 7 - Cathode
Pin 8 - Grid (Section 2)
Pin 9 - Grid (Section 3)

BASING DIAGRAM



EIA 9RQ

MAXIMUM RATINGS (Cont'd)

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.

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS, EACH SECTION

Plate Voltage	250	Volts
Grid Voltage	-10.5	Volts
Amplification Factor	17	
Plate Resistance, approximate	5500	Ohms
Transconductance	3100	Micromhos
Plate Current	11.5	Milliamperes
Plate Current, approximate Ec = -14 volts	4	Milliamperes
Grid Voltage, approximate Ib = 50 Microamperes	-23	Volts

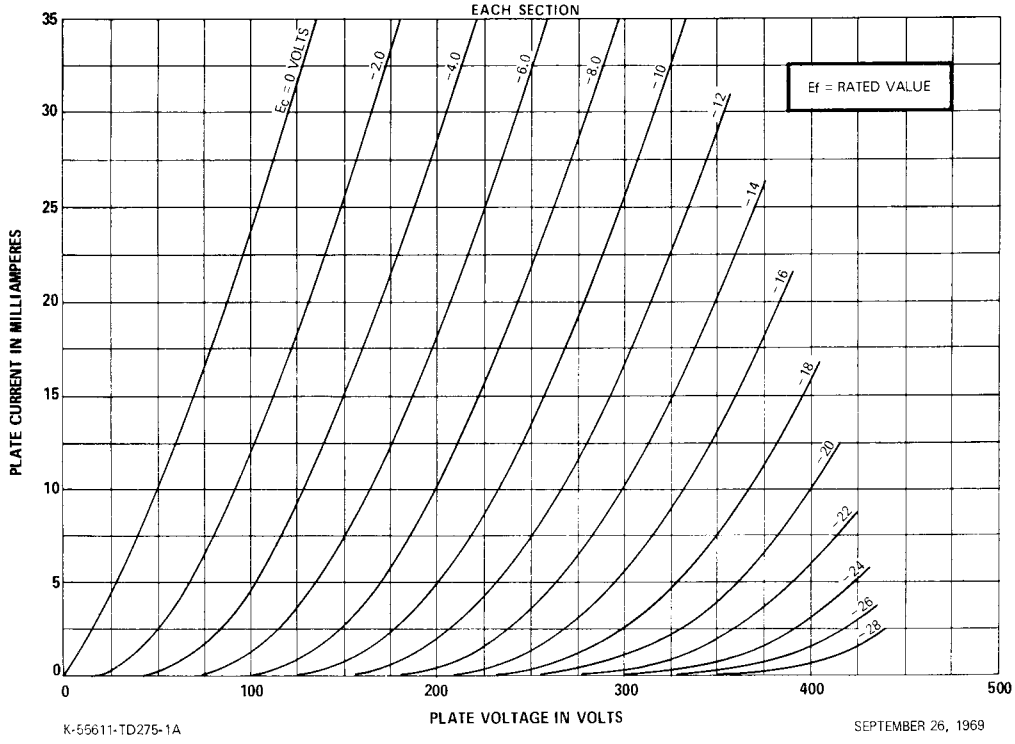
NOTES

* 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.

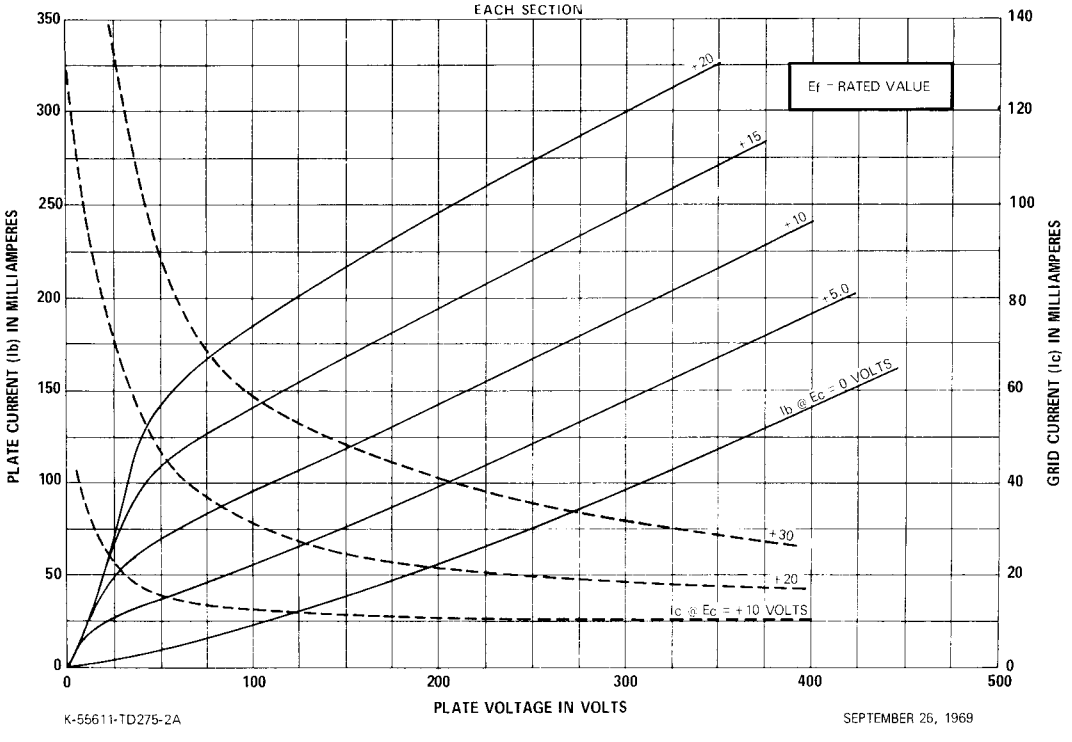
‡ Heater current of a bogey tube at Ef = 6.3 volts.

§ Without external shield.

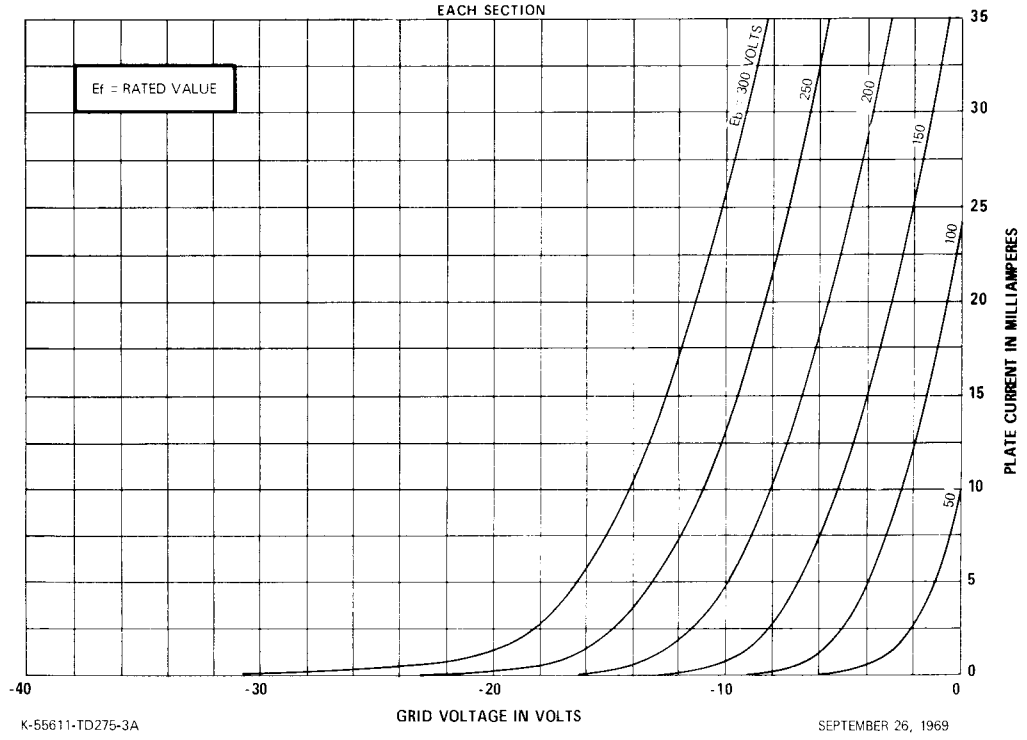
AVERAGE PLATE CHARACTERISTICS



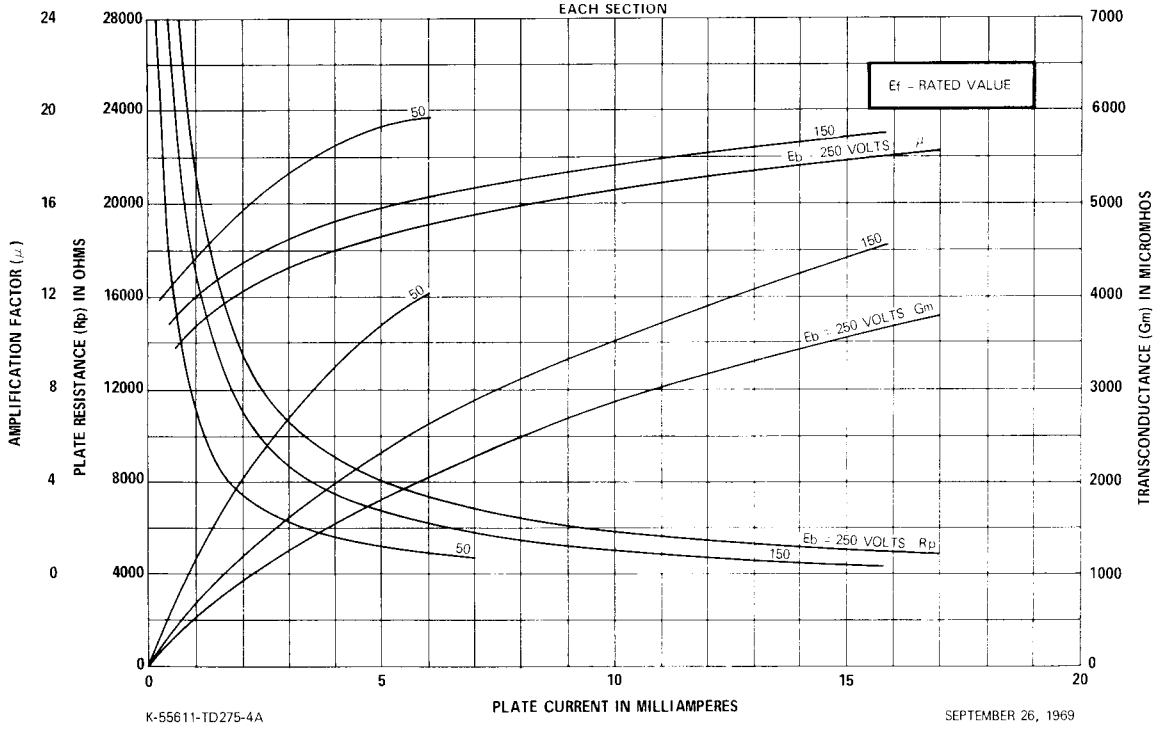
AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE CHARACTERISTICS



TUBE DEPARTMENT

GENERAL ELECTRIC

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