Compactron Triple Triode

6MJ8

The 6MJ8 is a compactron triple triode intended for use as a chroma matrixing amplifier in color television receivers. Combining three triodes in one envelope allows all three picture tube guns to be driven by a single tube.

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§

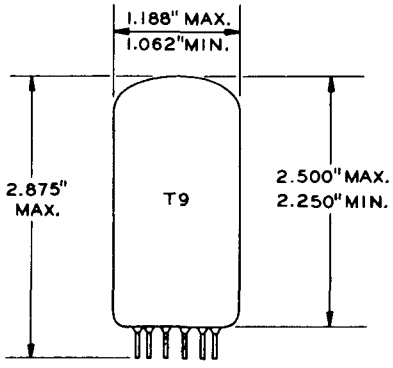
	Section 1	Section 2	Section 3	
Grid to Plate: (g to p)	2.8	2.8	2.8	pf
Input: g to (h + k)	2.9	2.9	3.0	pf
Output: p to (h + k)	0.36	0.6	0.7	pf

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

PHYSICAL DIMENSIONS

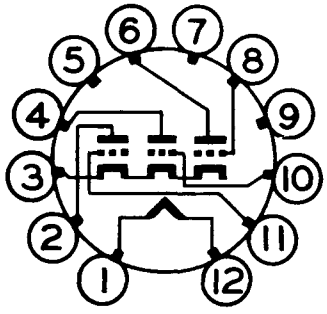


EIA 9-60

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 - No Connection
Pin 8 - Grid (Section 1)
Pin 9 - No Connection
Pin 10 - Grid (Section 2)
Pin 11 - Grid (Section 3)
Pin 12 - Heater

BASING DIAGRAM



EIA 12HG

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 express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.

MAXIMUM RATINGS

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

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

CLASS A_1 AMPLIFIER, EACH SECTION

Plate Voltage	250	Volts
Grid Voltage	-10.5	Volts
Amplification Factor	17	
Plate Resistance, approximate	5600	Ohms
Transconductance	3000	Micromhos
Plate Current	10	Milliamperes
Grid Voltage, approximate Ib = 4.0 Milliamperes	-14	Volts
Grid Voltage, approximate Ib = 50 Microamperes	-23	Volts

NOTES

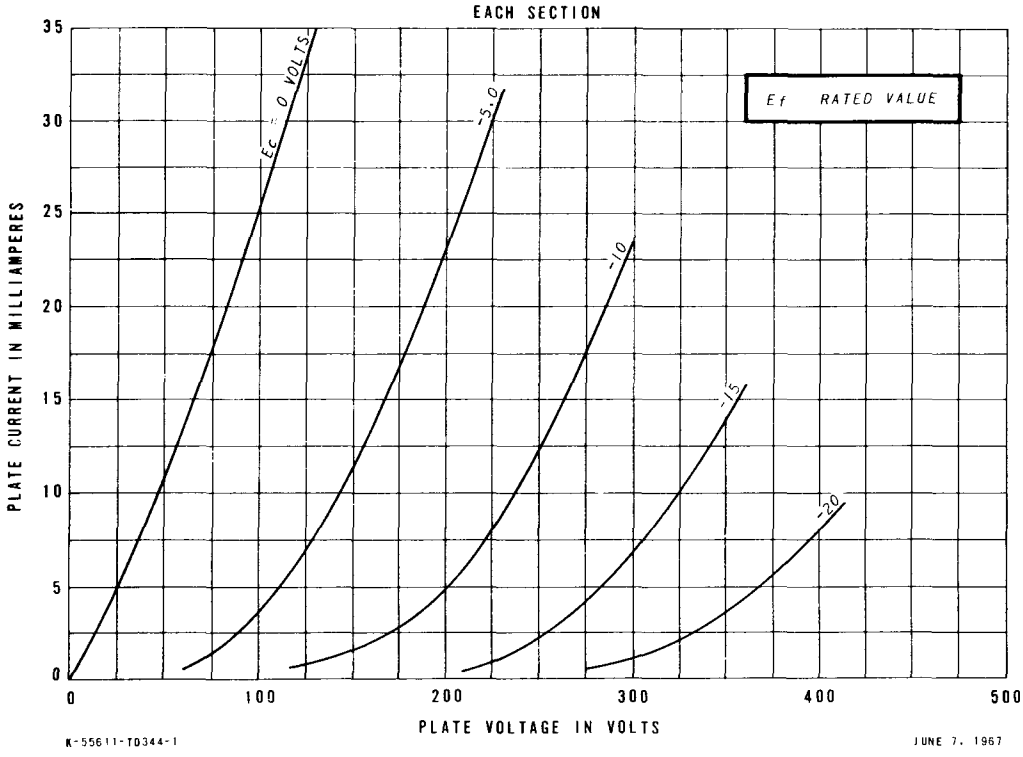
* The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.

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

§ Without external shield.

AVERAGE PLATE CHARACTERISTICS

EACH SECTION



TUBE DEPARTMENT

GENERAL ELECTRIC

Owensboro, Kentucky