



DESCRIPTION AND RATING

The 6GM6 is a miniature, semiremote-cutoff pentode designed for use in gain-controlled, intermediate-frequency amplifier stages of television receivers.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC* . . . 6.3±0.6 Volts

Heater Current† 0.4 Amperes

Direct Interelectrode Capacitances‡

Grid-Number 1 to Plate; (g1 to p),
maximum 0.036 pf

Input: g1 to (h + k + g2 + g3 +
i.s.). 10 pf

Output: p to (h + k + g2 + g3 +
i.s.). 2.4 pf

MECHANICAL

Operating Position - Any

Envelope - T-5 1/2, Glass

Base - E7-1, Miniature Button 7-Pin

Outline Drawing - EIA 5-2

Maximum Diameter 0.750 Inches

Maximum Over-all Length. 2.125 Inches

Maximum Seated Height 1.875 Inches

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

Plate Voltage 330 Volts

Suppressor Voltage 0 Volts

Screen-Supply Voltage 330 Volts

Screen Voltage - See Screen Rating Chart

Positive DC Grid-Number 1 Voltage 0 Volts

Plate Dissipation 3.1 Watts

Screen Dissipation 0.65 Watts

Heater-Cathode Voltage

Heater Positive with Respect to Cathode

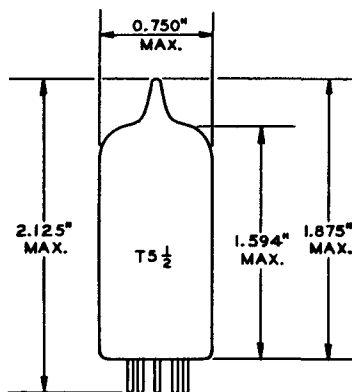
DC Component 100 Volts

Total DC and Peak. 200 Volts

Heater Negative with Respect to Cathode

Total DC and Peak. 200 Volts

PHYSICAL DIMENSIONS

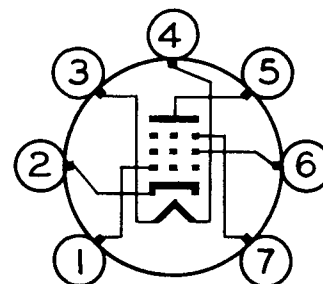


EIA 5-2

TERMINAL CONNECTIONS

- Pin 1 - Grid Number 1
- Pin 2 - Cathode
- Pin 3 - Heater
- Pin 4 - Heater
- Pin 5 - Plate
- Pin 6 - Grid Number 2 (Screen)
- Pin 7 - Grid Number 3 (Suppressor) and Internal Shield

BASING DIAGRAM



EIA 7CM

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

CLASS A₁ AMPLIFIER

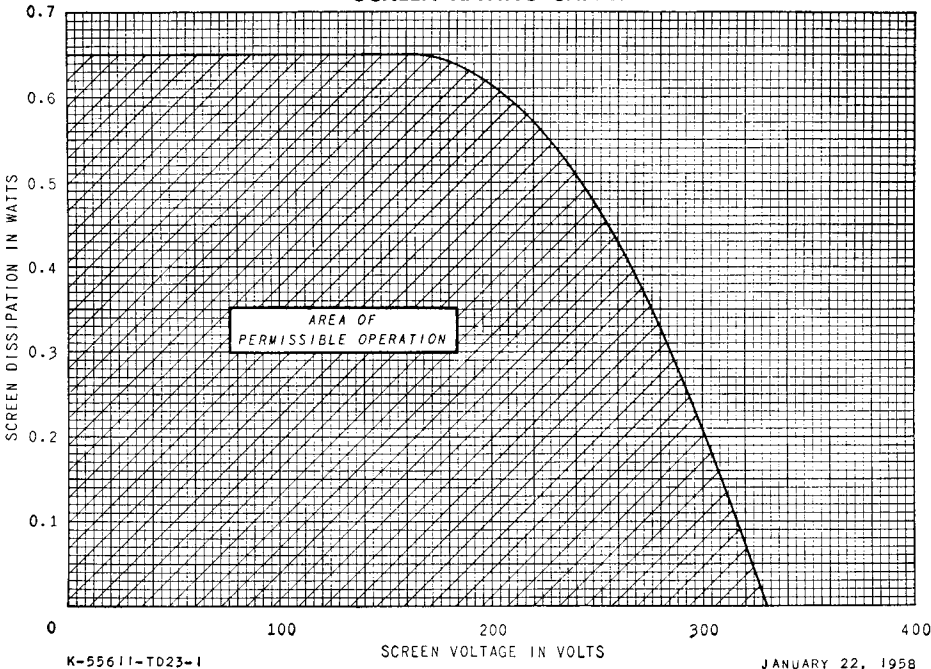
Plate Voltage	125	Volts
Suppressor, Connected to Cathode at Socket		
Screen Voltage.	125	Volts
Cathode-Bias Resistor	56	Ohms
Plate Resistance, approximate.	0.2	Megohms
Transconductance	13000	Micromhos
Plate Current	14	Milliamperes
Screen Current.	3.4	Milliamperes
Grid-Number 1 Voltage, approximate		
Gm = 60 Micromhos.	-15	Volts

NOTES

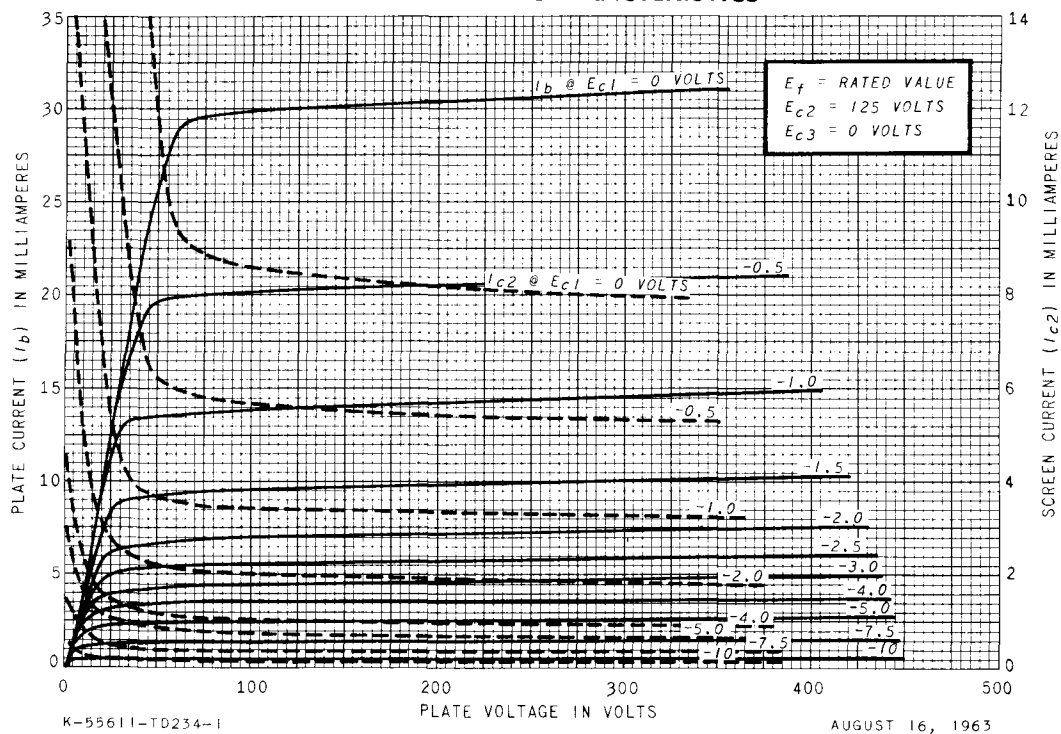
- * The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
- † Heater current of a bogey tube at Ef = 6.3 volts.
- ‡ Without external shield.

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.

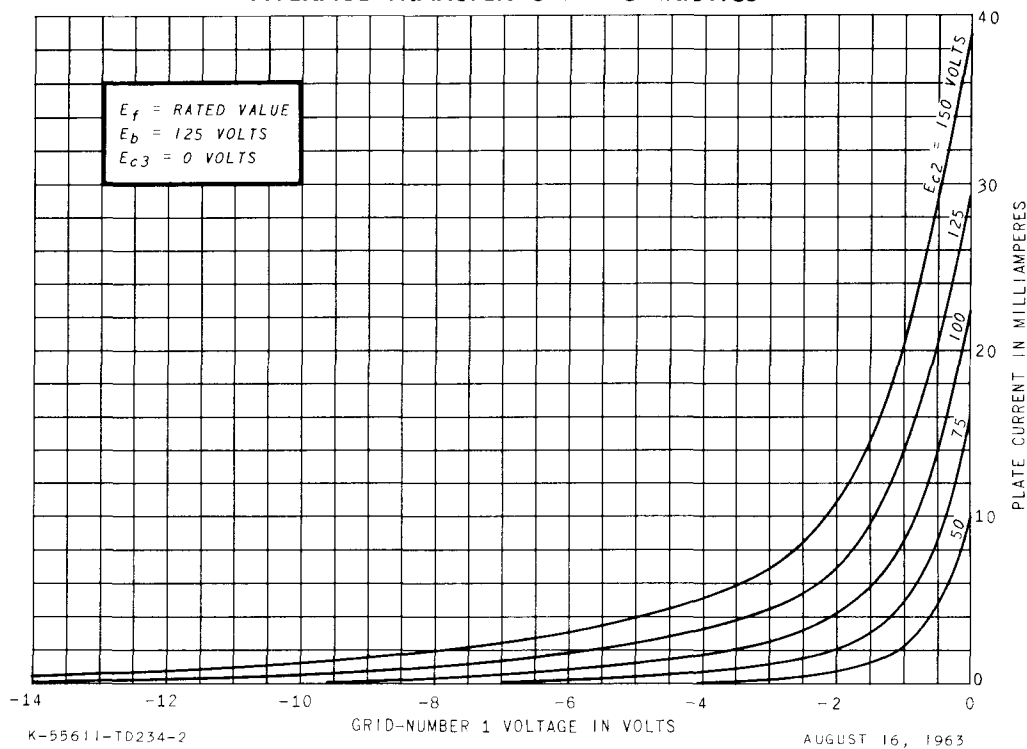
SCREEN RATING CHART



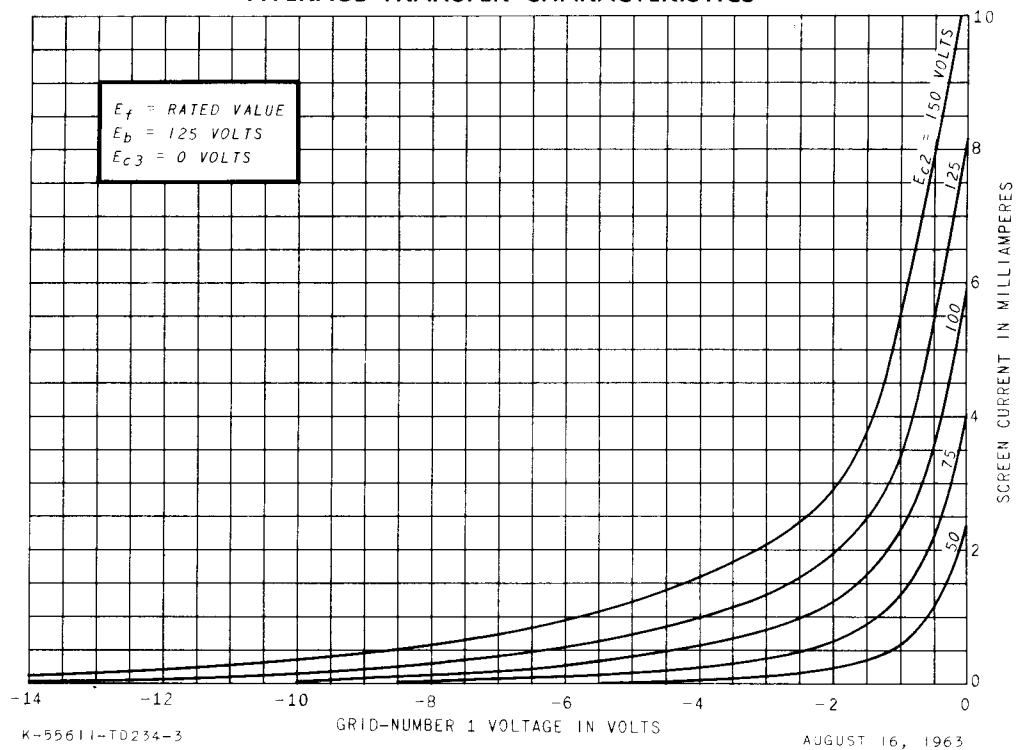
AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



TUBE DEPARTMENT

GENERAL  **ELECTRIC**

Owensboro, Kentucky