

Sharp-Cutoff Pentode

6JG5

FOR TV VIDEO AMPLIFIER APPLICATIONS

■ COLOR TV TYPE ■ VIDEO AMPLIFIER PENTODE ■ 9-PIN MINIATURE ■ TRANSCONDUCTANCE = 11500 MICROMHOS

The 6JG5 is a miniature sharp-cutoff pentode primarily designed for use as the video output amplifier in color television receivers. Its characteristics are identical to those of the 6GN8 pentode section.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

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

Heater Current ●.....0.525 Amperes

Direct Interelectrode Capacitances, approximate▲

Grid-Number 1 to Plate: (g1 to p)..... 0.10 pf

Input: g1 to (h+k+g2+g3+i.s.) 11 pf

Output: p to (h+k+g2+g3+i.s.) 4.5 pf

MECHANICAL

Operating Position - Any

Envelope - T-6½, Glass

Base - E9-1, Small Button 9-Pin

Outline Drawing - EIA 6-3

Maximum Diameter 0.875 Inches

Maximum Over-all Length 2.625 Inches

Maximum Seated Height..... 2.375 Inches

DESIGN-MAXIMUM VALUES

Plate Voltage 330 Volts

Screen Supply Voltage 330 Volts

Screen Voltage - See Screen Rating Chart

Positive DC Grid-Number 1 Voltage 0 Volts

Plate Dissipation 5.0 Watts

Screen Dissipation 1.1 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

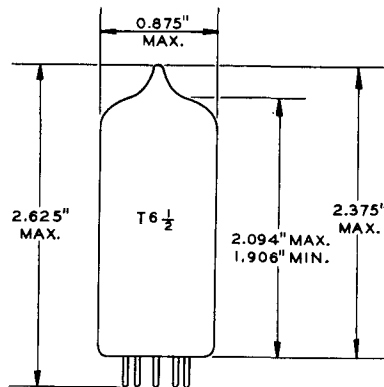
Grid-Number 1 Circuit Resistance

With Fixed Bias 0.25 Megohms

With Cathode Bias 1.0 Megohms

MAXIMUM RATINGS

PHYSICAL DIMENSIONS



EIA 6-3

TERMINAL CONNECTIONS

Pin 1 - Internal Connection - Do Not Use

Pin 2 - Internal Connection - Do Not Use

Pin 3 - Internal Connection - Do Not Use

Pin 4 - Heater

Pin 5 - Heater

Pin 6 - Cathode, Grid-Number 3 and

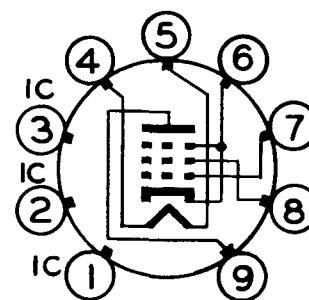
Internal Shield

Pin 7 - Grid-Number 1

Pin 8 - Grid-Number 2 (Screen)

Pin 9 - Plate

BASING DIAGRAM



EIA 9SF

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

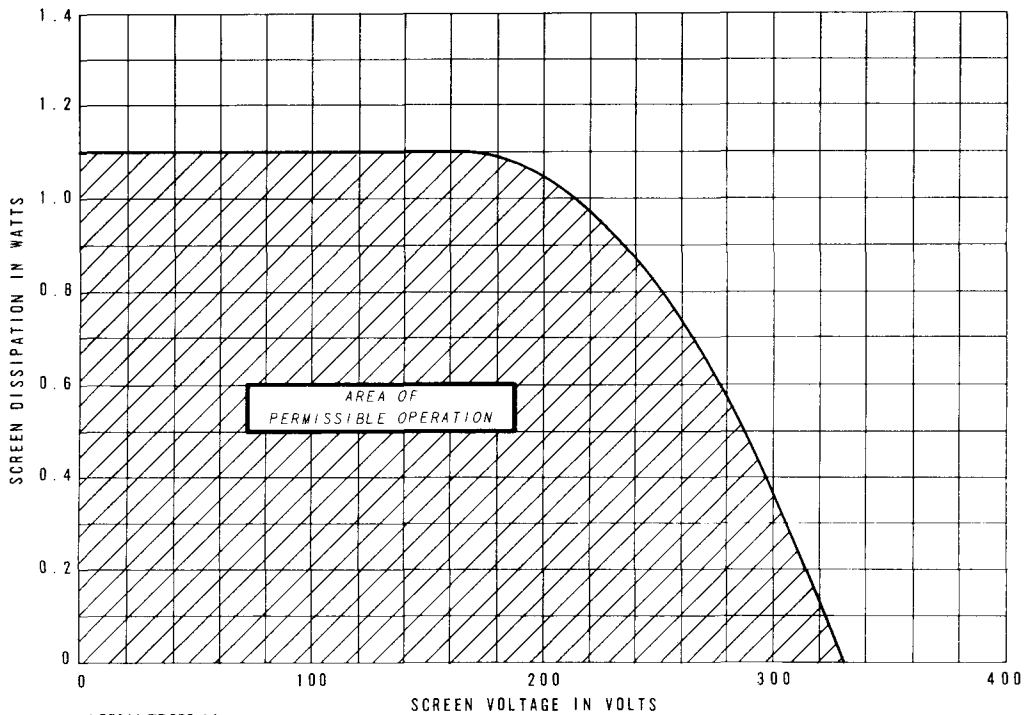
Plate Voltage	60	200	Volts
Screen Voltage	150	150	Volts
Grid-Number 1 Voltage	0 ♦	---	Volts
Cathode-Bias Resistor	---	100	Ohms
Plate Resistance, approximate	---	60000	Ohms
Transconductance	---	11500	Micromhos
Plate Current	55	25	Milliamperes
Screen Current	18	5.5	Milliamperes
Grid-Number 1 Voltage, approximate I _b = 100 Microamperes	---	-10	Volts

NOTES

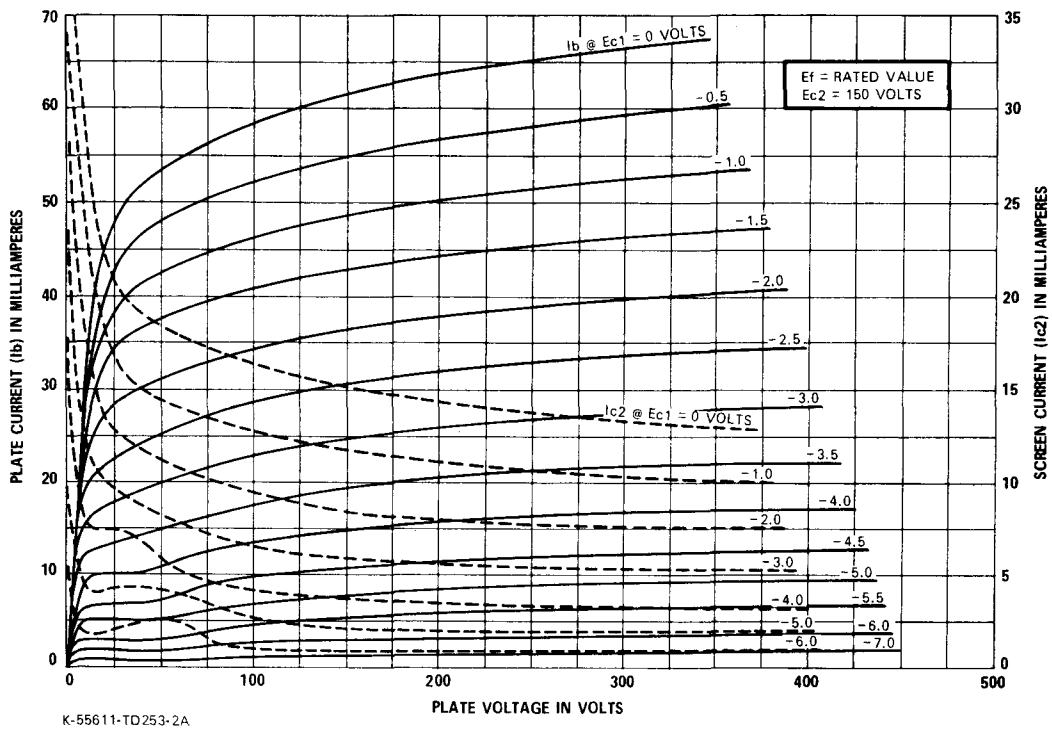
- * The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
- Heater current of a bogey at E_f = 6.3 volts.
 ▲ Without external shield.
 ♦ Applied for short interval (two seconds maximum) so as not to damage tube.

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.

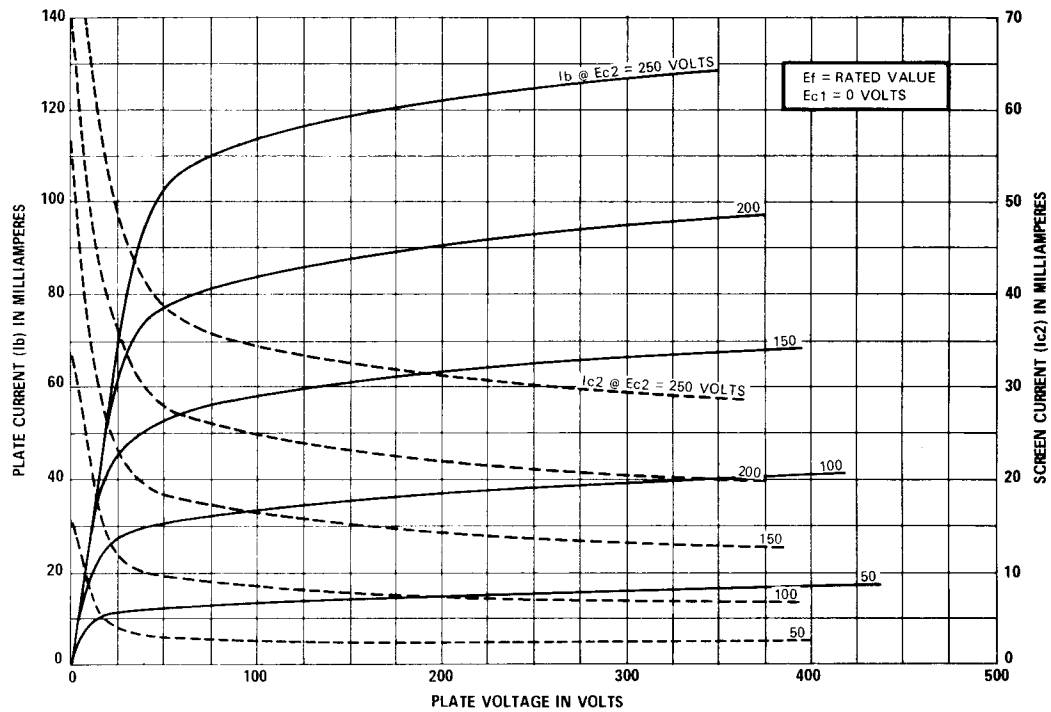
SCREEN RATING CHART



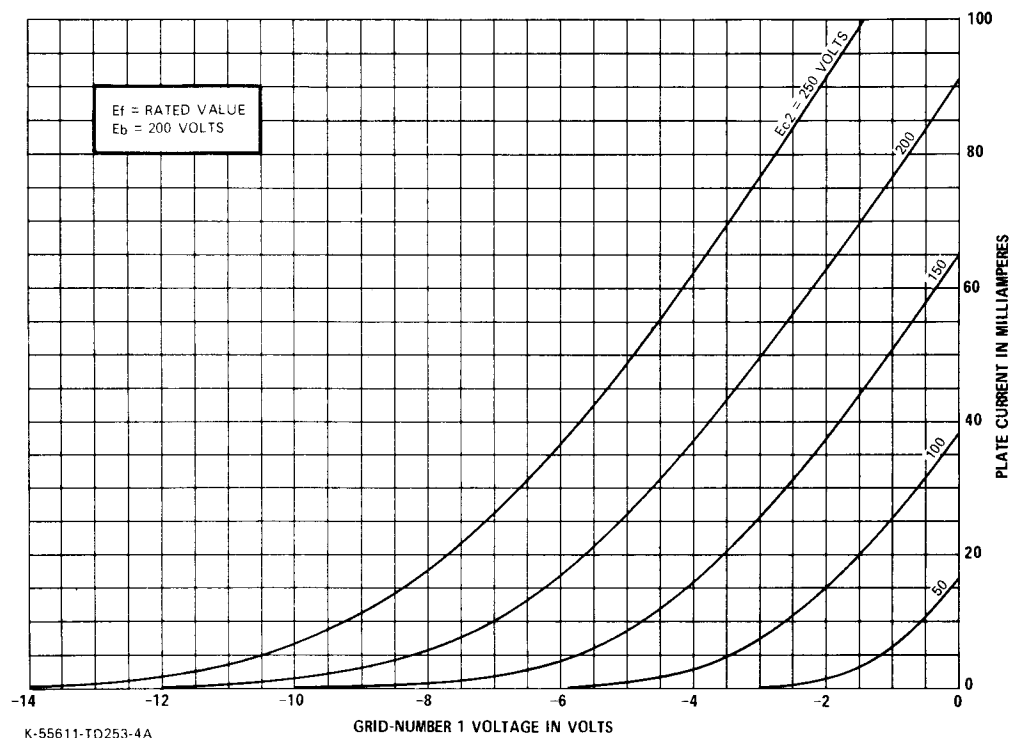
AVERAGE PLATE CHARACTERISTICS



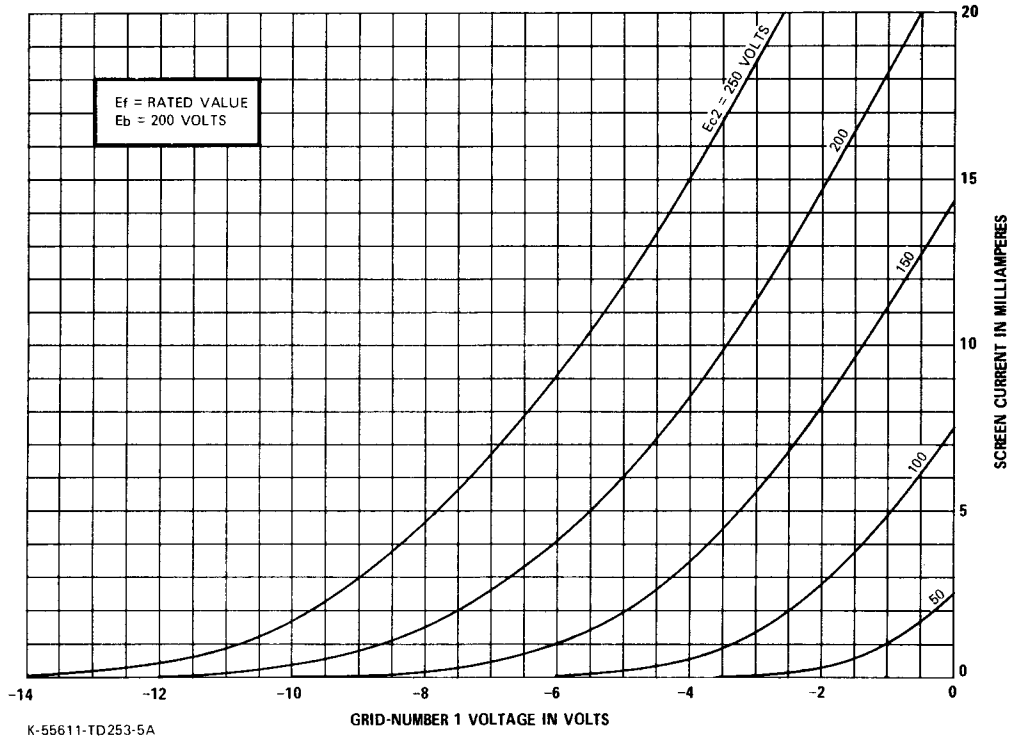
AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

