

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

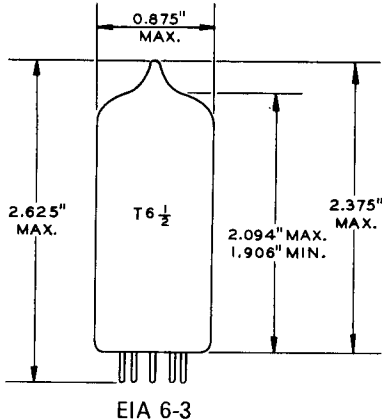
ELECTRICAL	MECHANICAL
Cathode - Coated Unipotential	Operating Position - Any
Heater Characteristics and Ratings	Envelope - T-6½, Glass
Heater Voltage, AC or DC *..... 6.3±0.6 Volts	Base - E9-1, Small Button 9-Pin
Heater Current ●..... 0.525 Amperes	Outline Drawing - EIA 6-3
Direct Interelectrode Capacitances, approximate▲	Maximum Diameter 0.875 Inches
Grid-Number 1 to Plate: (g1 to p)..... 0.10 pf	Maximum Over-all Length 2.625 Inches
Input: g1 to (h+k+g2+g3+i.s.) 11 pf	Maximum Seated Height..... 2.375 Inches
Output: p to (h+k+g2+g3+i.s.) 4.5 pf	

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

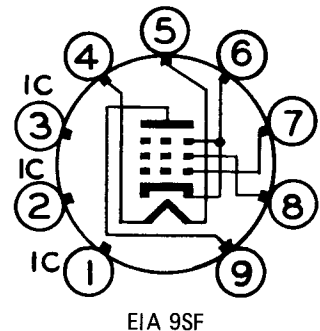
PHYSICAL DIMENSIONS



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



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

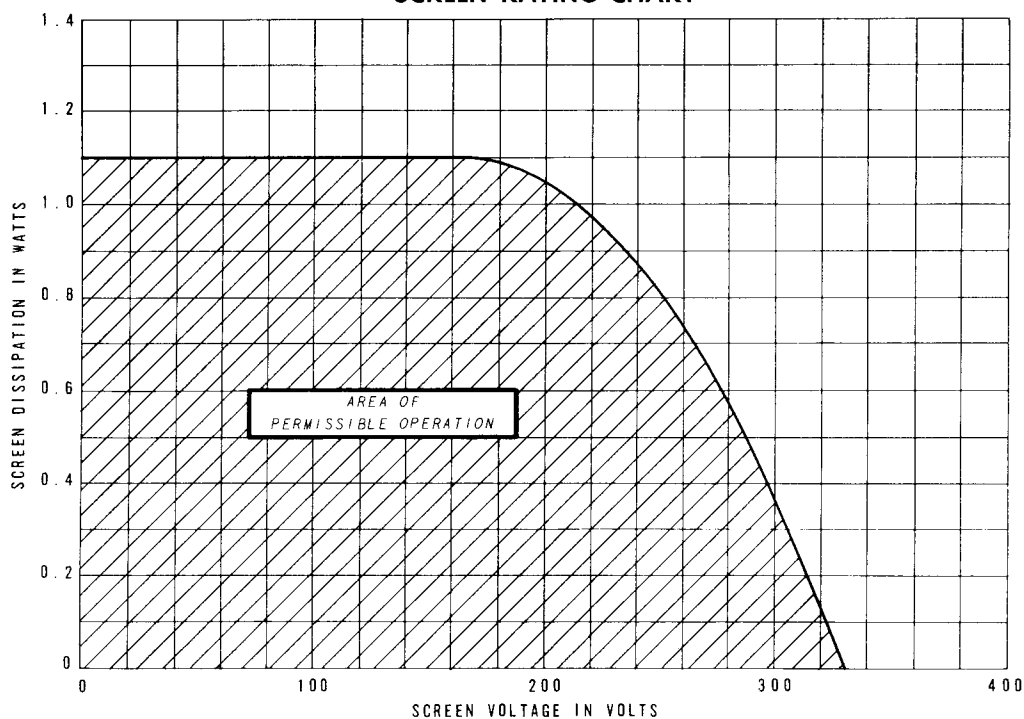
* The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.

• Heater current of a bogey at E_f = 6.3 volts.

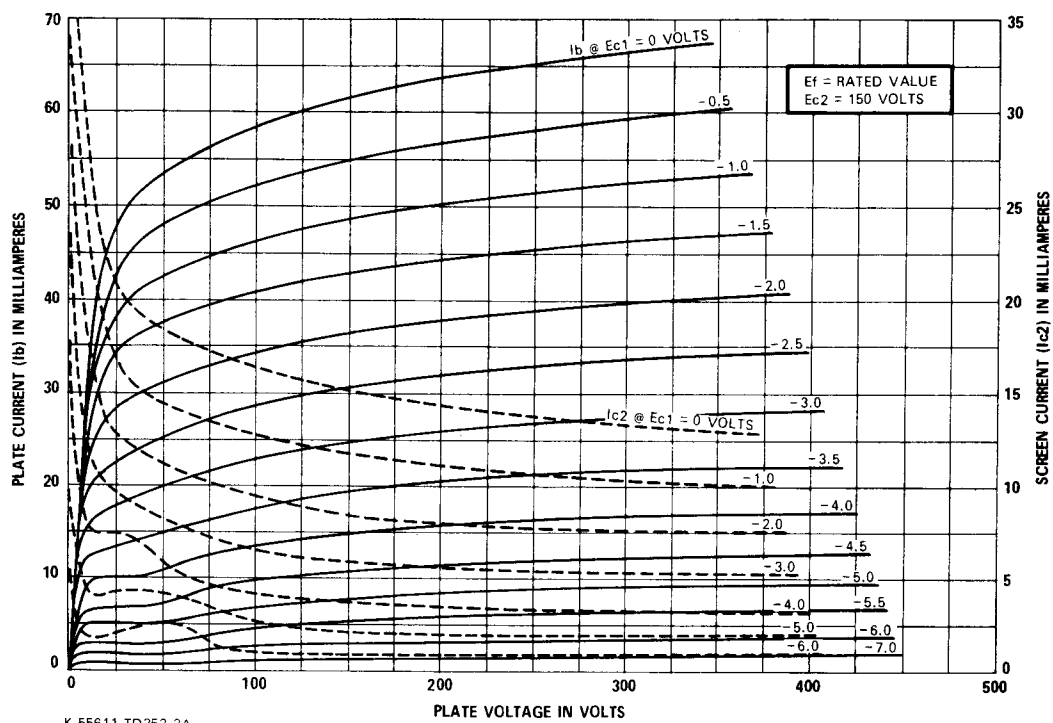
▲ Without external shield.

♦ Applied for short interval (two seconds maximum) so as not to damage tube.

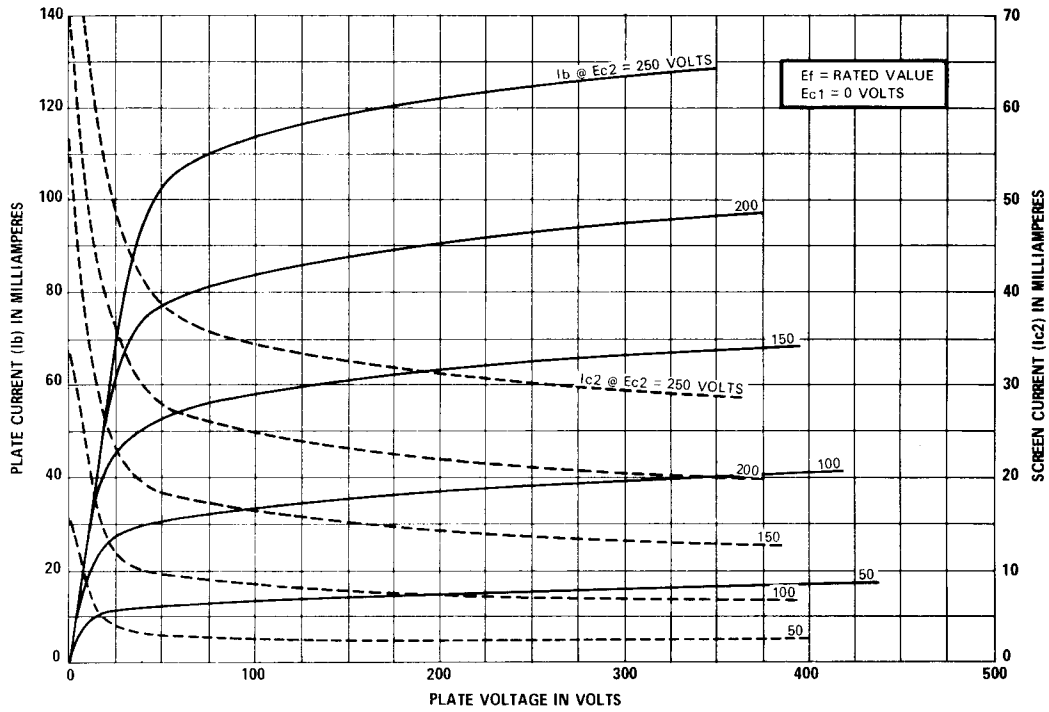
SCREEN RATING CHART



AVERAGE PLATE CHARACTERISTICS

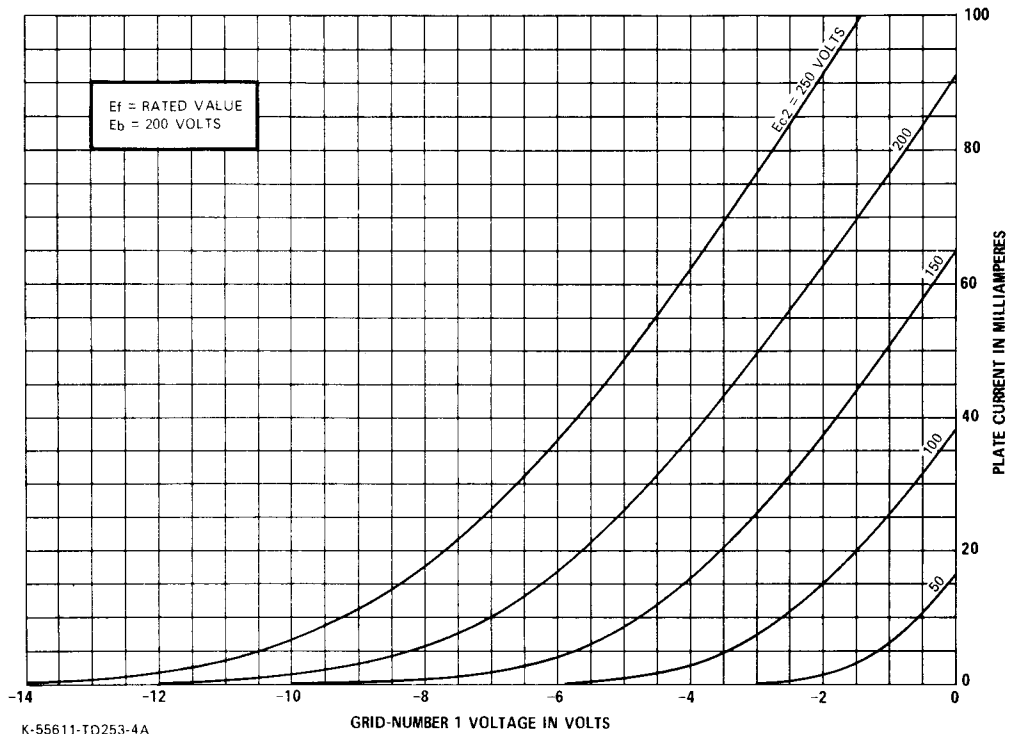


AVERAGE PLATE CHARACTERISTICS



K-55611-TD253-3A

AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD253-4A

