

6JC6-A

Sharp-Cutoff Pentode

- **FRAME-GRID TYPE**
- **16000 MICROMHOS**
- **NO EXTERNAL SHIELD REQUIRED**
- **COMMON PLATE AND SCREEN SUPPLY**

The 6JC6-A is a miniature, frame-grid, sharp-cutoff pentode designed primarily for use in the intermediate-frequency amplifier stages of both monochrome and color television receivers.

The 6JC6-A is unilaterally interchangeable with the 6JC6, but has higher plate and screen dissipation ratings, and higher transconductance, plate and screen current characteristics.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential
 Heater Characteristics and Ratings
 Heater Voltage, AC or DC*..... 6.3 ± 0.6 Volts
 Heater Current†..... 0.3 Amperes
 Direct Interelectrode Capacitances, approximate‡
 Grid-Number 1 to Plate: (g1 to p), maximum... 0.019 pf
 Input: g1 to (h + k + g2 + g3 + i.s.)..... 8.5 pf
 Output: p to (h + k + g2 + g3 + i.s.) 3.0 pf

MECHANICAL

Operating Position - Any
 Envelope - T-6½, Glass
 Base - E9-1, Small Button 9-Pin
 Outline Drawing - EIA 6-2
 Maximum Diameter 0.875 Inches
 Minimum Diameter..... 0.750 Inches
 Maximum Over-all Length..... 2.187 Inches
 Maximum Seated Height 1.937 Inches

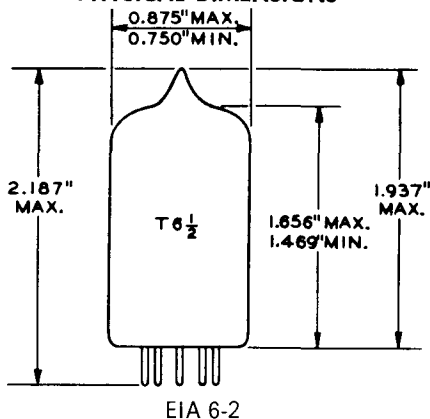
MAXIMUM RATINGS

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.

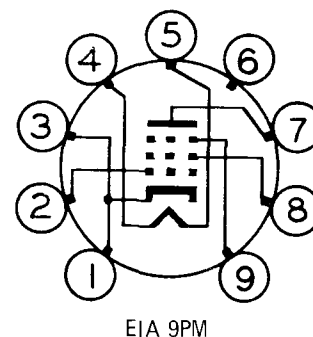
PHYSICAL DIMENSIONS



TERMINAL CONNECTIONS

- Pin 1 - Cathode
- Pin 2 - Grid Number 1
- Pin 3 - Cathode
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - No Connection
- Pin 7 - Plate
- Pin 8 - Grid Number 2 (Screen)
- Pin 9 - Grid Number 3 (Suppressor) and Internal Shield

BASING DIAGRAM



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 (Cont'd)

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	0.7	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

CHARACTERISTICS AND TYPICAL OPERATION

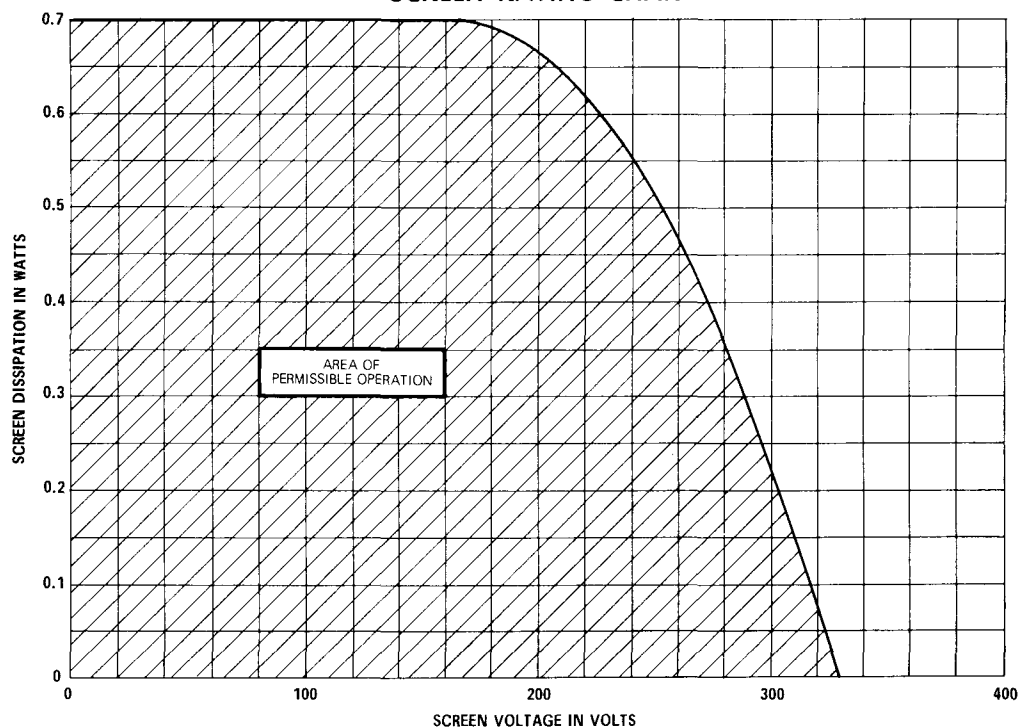
CLASS A₁ AMPLIFIER

Plate Voltage	125	Volts
Suppressor, Connected to Cathode at Socket		
Screen Voltage	125	Volts
Cathode-Bias Resistor	56	Ohms
Plate Resistance, approximate	0.18	Megohms
Transconductance	16000	Micromhos
Plate Current	14	Milliamperes
Screen Current	3.4	Milliamperes
Grid-Number 1 Voltage, approximate		
I _b = 100 Microamperes	-3	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 E_f = 6.3 volts.
- ‡ Without external shield.

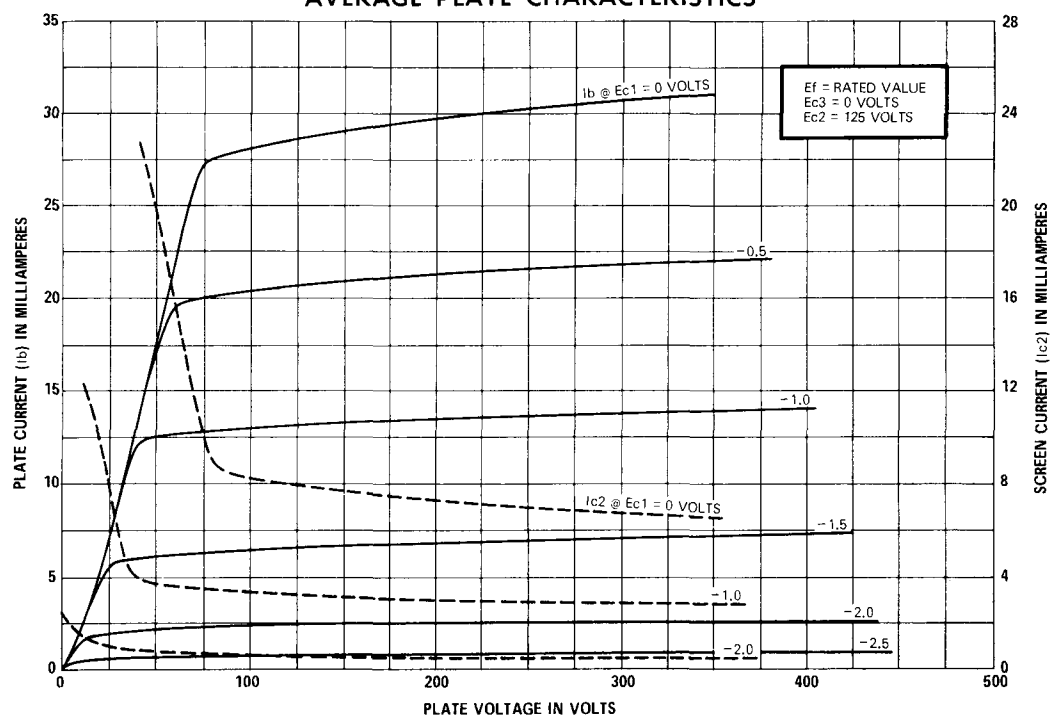
SCREEN RATING CHART



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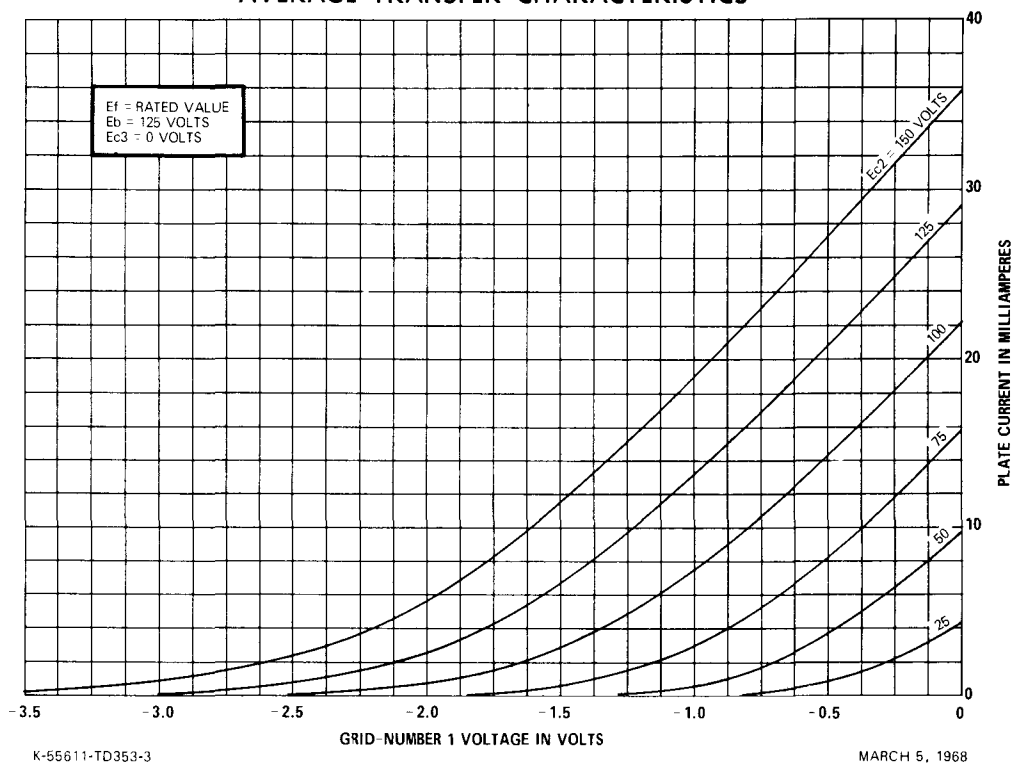
AVERAGE PLATE CHARACTERISTICS



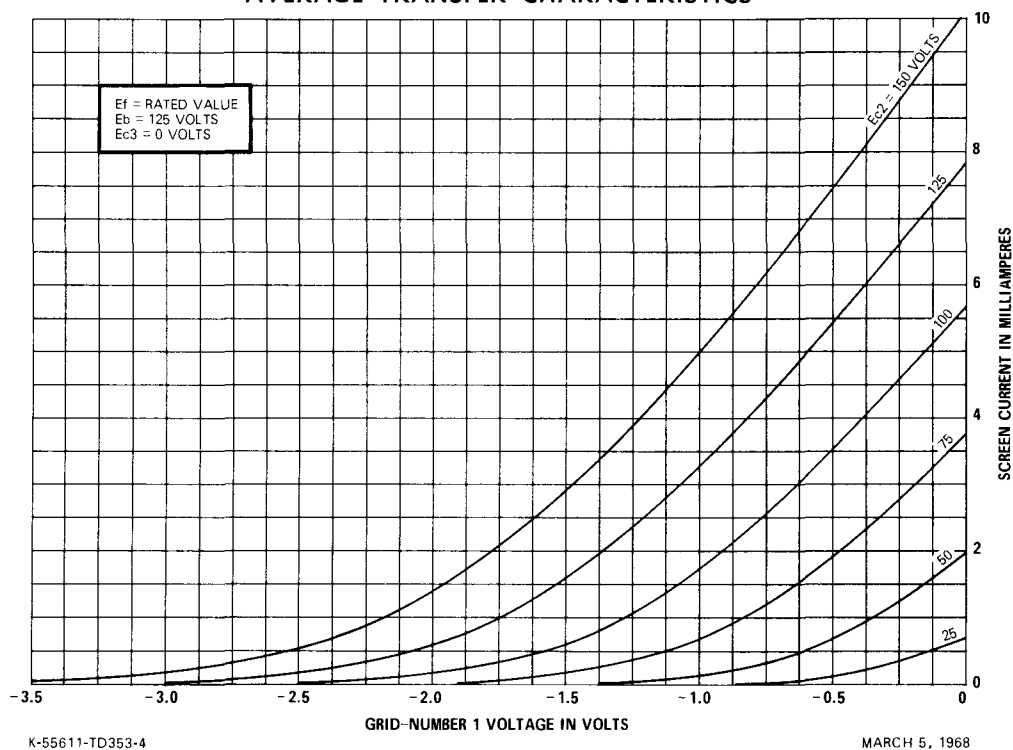
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AVERAGE TRANSFER CHARACTERISTICS



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