Sharp-Cutoff Pentode

6JC6-A

- 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

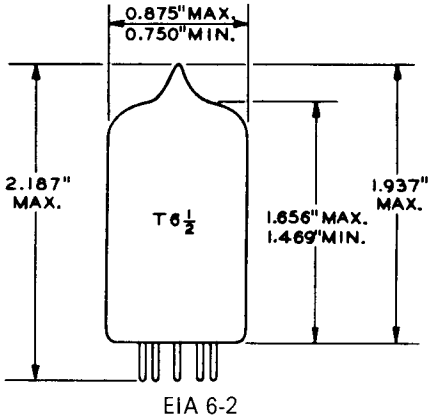
MAXIMUM RATINGS

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

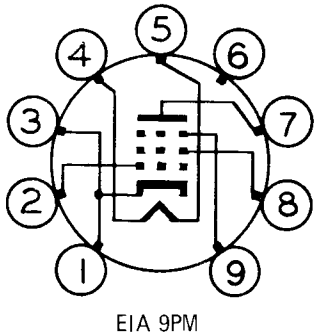


EIA 6-2

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



EIA 9PM

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 A_1 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		
Ib = 100 Microamperes	-3	Volts

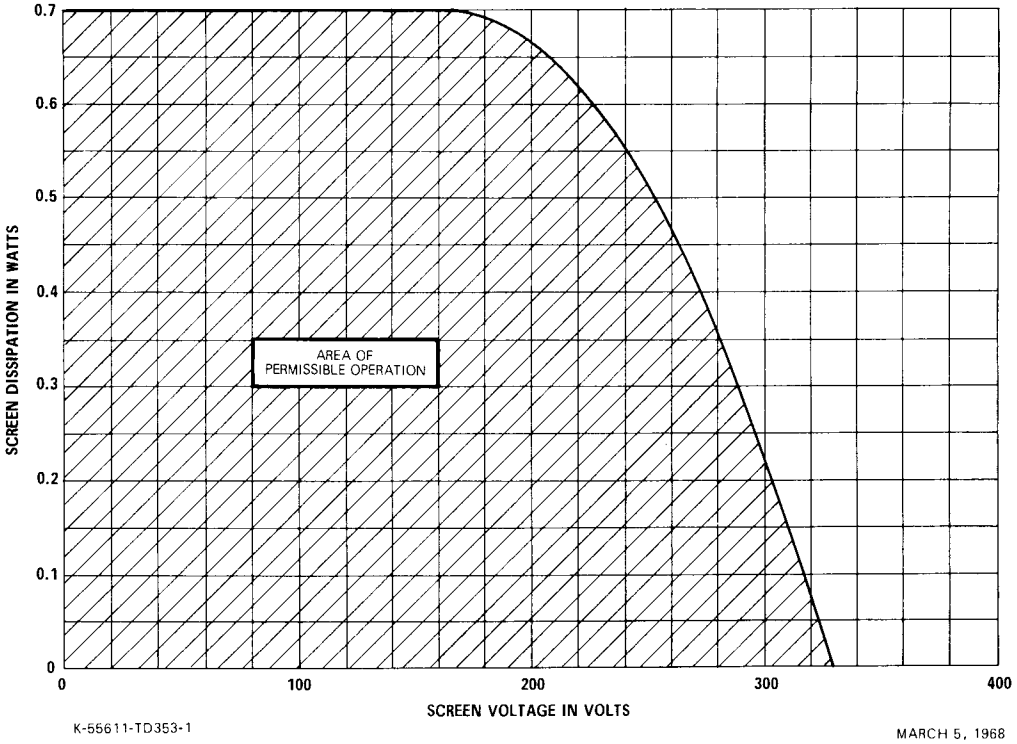
NOTES

* 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 Ef = 6.3 volts.

‡ Without external shield.

SCREEN RATING CHART



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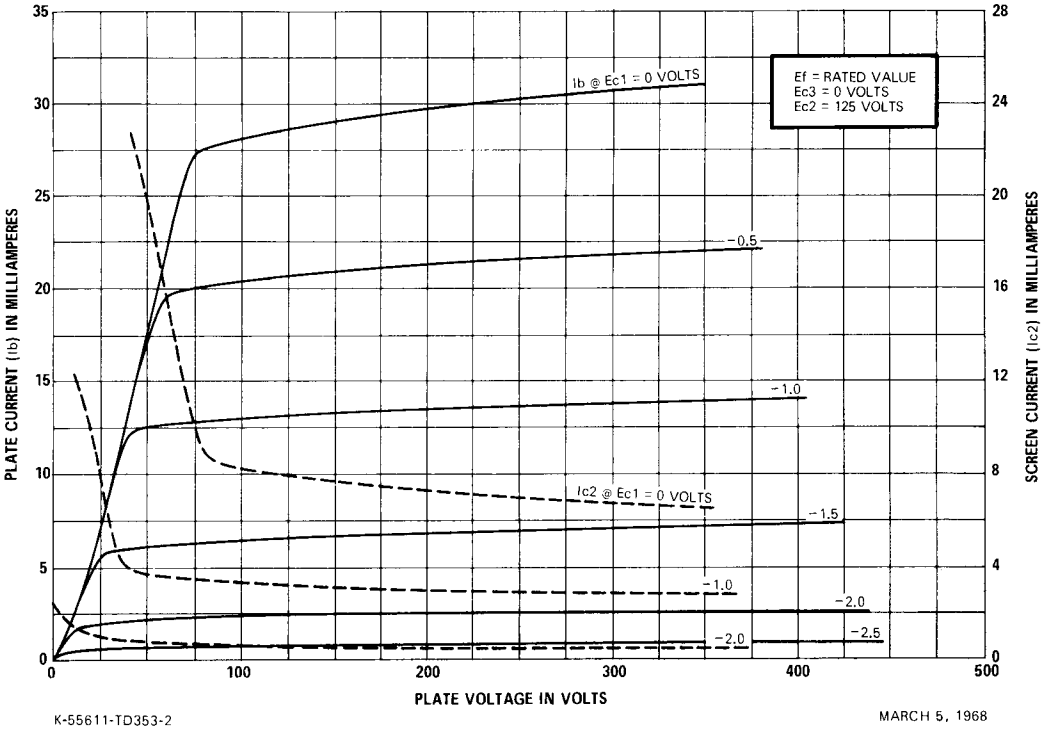
MARCH 5, 1968

AVERAGE PLATE CHARACTERISTICS



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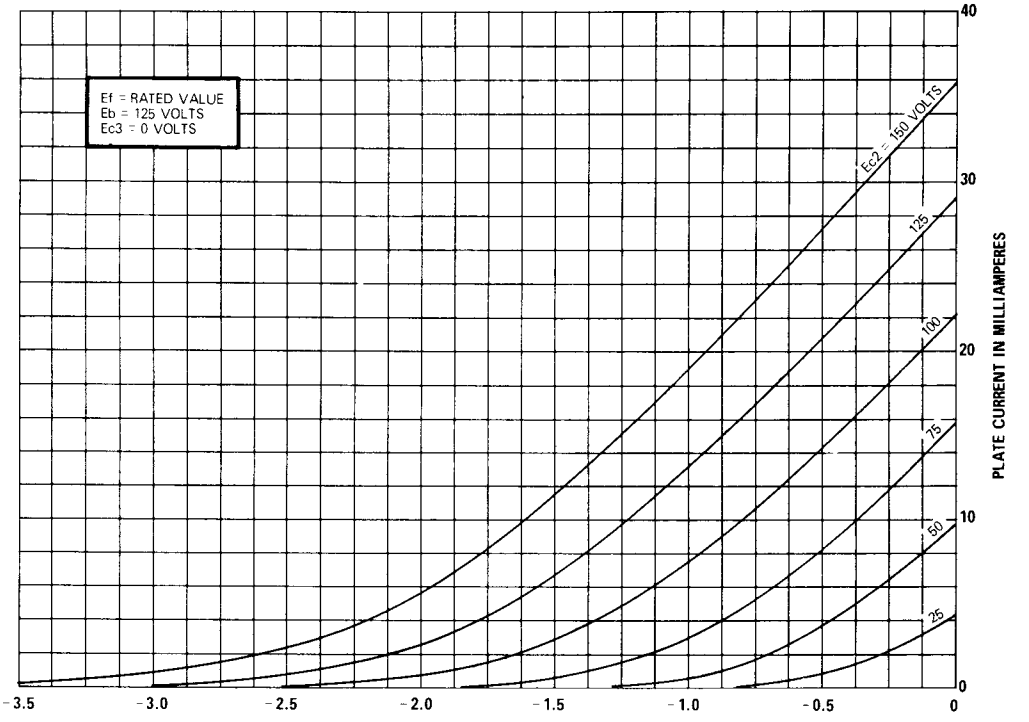
MARCH 5, 1968

AVERAGE TRANSFER CHARACTERISTICS



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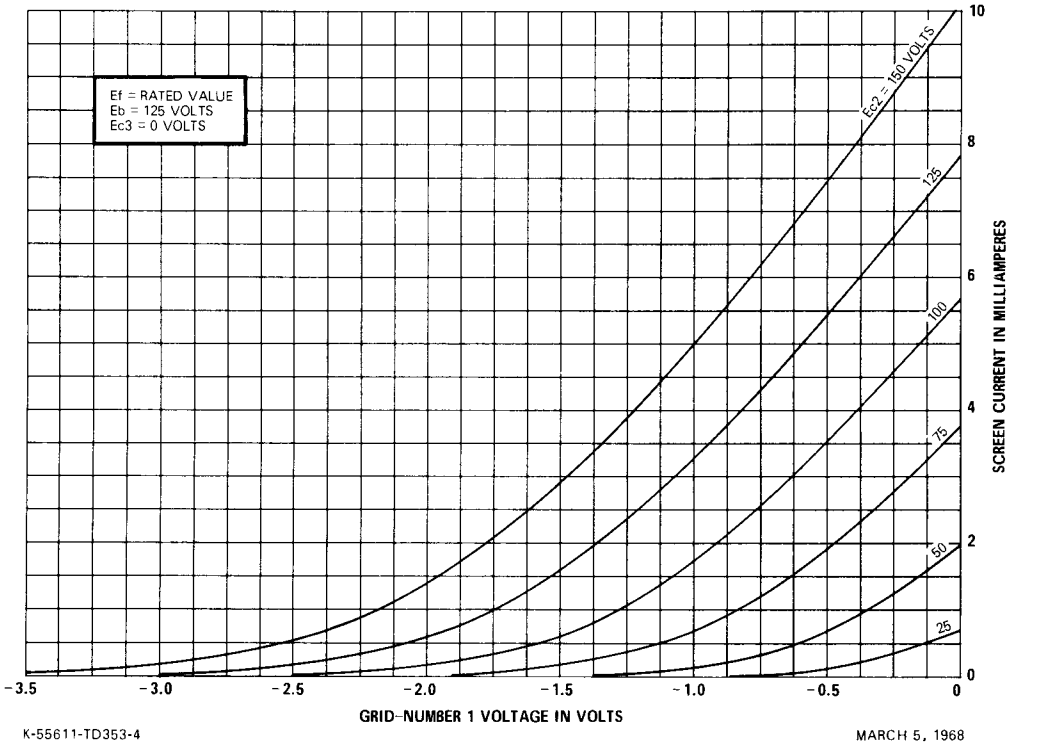
AVERAGE TRANSFER CHARACTERISTICS



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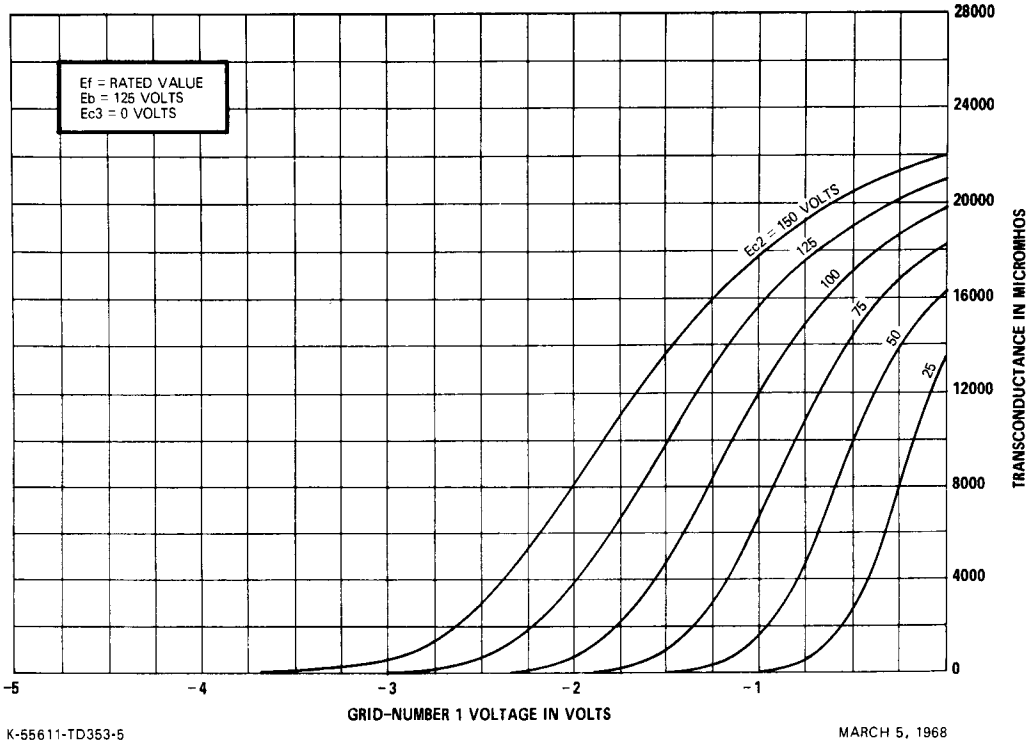
AVERAGE TRANSFER CHARACTERISTICS



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