

**DESCRIPTION AND RATING**

The 6DK6 is a miniature sharp-cutoff pentode designed for use as a wide-band radio-frequency or intermediate-frequency amplifier in television receivers. Features of the tube include high transconductance and low inter-electrode capacitances.

**GENERAL**

**ELECTRICAL**

Cathode—Coated Unipotential		
Heater Voltage, AC or DC	6.3	Volts
Heater Current	0.3	Amperes
Direct Interelectrode Capacitances*		
Grid-No. 1 to Plate	0.020	$\mu\mu\text{f}$
Input	6.3	$\mu\mu\text{f}$
Output	1.9	$\mu\mu\text{f}$

**MECHANICAL**

Mounting Position—Any  
Envelope—T-5½, Glass  
Base—E7-1, Miniature Button 7-Pin

**MAXIMUM RATINGS**

**DESIGN-CENTER VALUES**

Plate Voltage	300	Volts
Screen Voltage	150	Volts
Plate Dissipation	2.0	Watts
Screen Dissipation	0.5	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	300	Volts

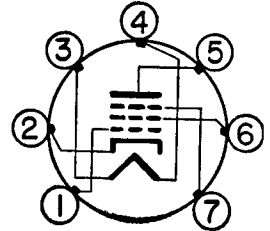
**CHARACTERISTICS AND TYPICAL OPERATION**

**CLASS A<sub>1</sub> AMPLIFIER**

Plate Voltage	125	Volts
Suppressor, Connected to Cathode at Socket		
Screen Voltage	125	Volts
Cathode-Bias Resistor	56	Ohms
Transconductance	9800	Micromhos
Plate Current	12	Milliamperes
Screen Current	3.8	Milliamperes
Grid-Number 1 Voltage, approximate		
I <sub>b</sub> = 20 Microamperes	-6.5	Volts

\* Without external shield.

**BASING DIAGRAM**

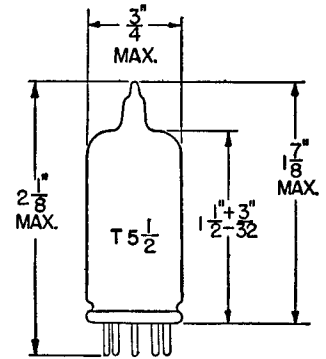


EIA 7CM

**TERMINAL CONNECTIONS**

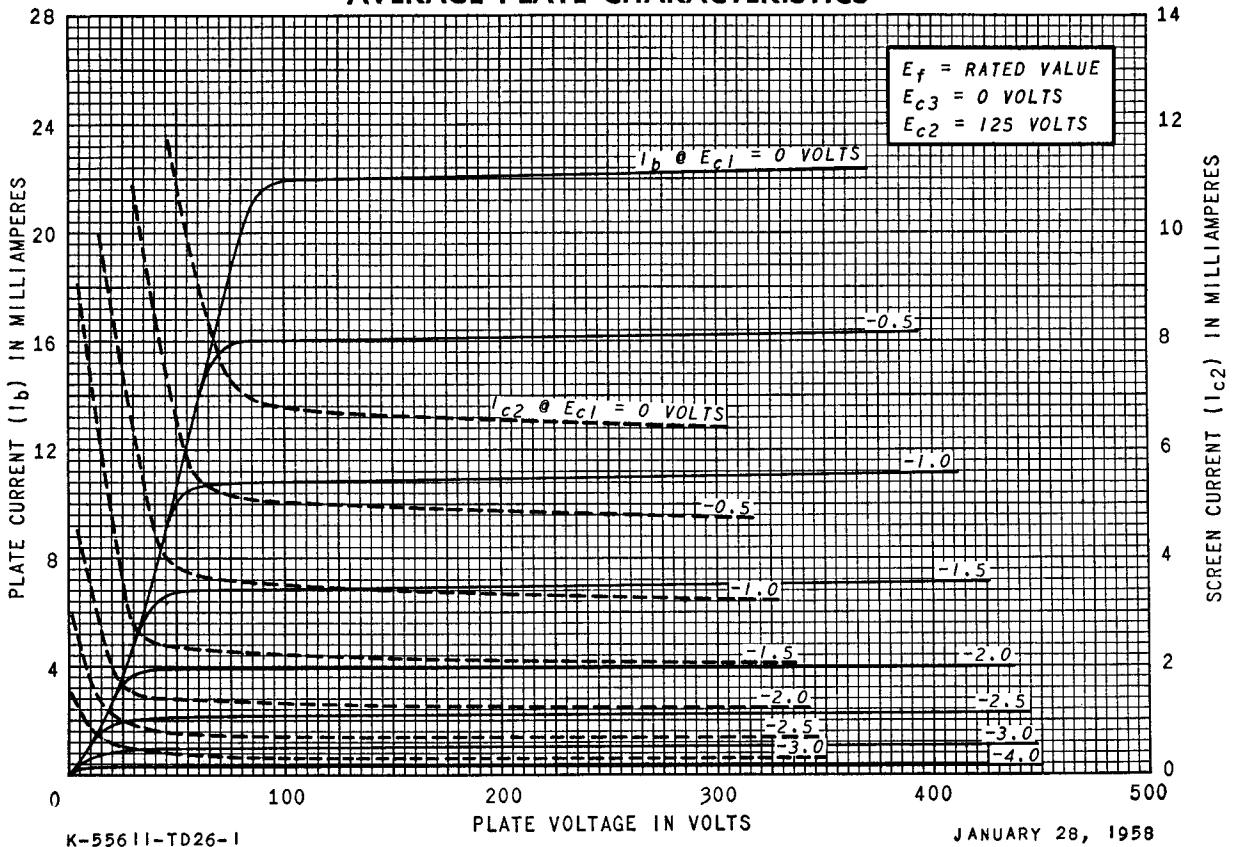
- Pin 1—Grid Number 1
- Pin 2—Cathode
- Pin 3—Heater
- Pin 4—Heater
- Pin 5—Plate
- Pin 6—Grid Number 2 (Screen)
- Pin 7—Internal Shield and Grid-Number 3 (Suppressor)

**PHYSICAL DIMENSIONS**

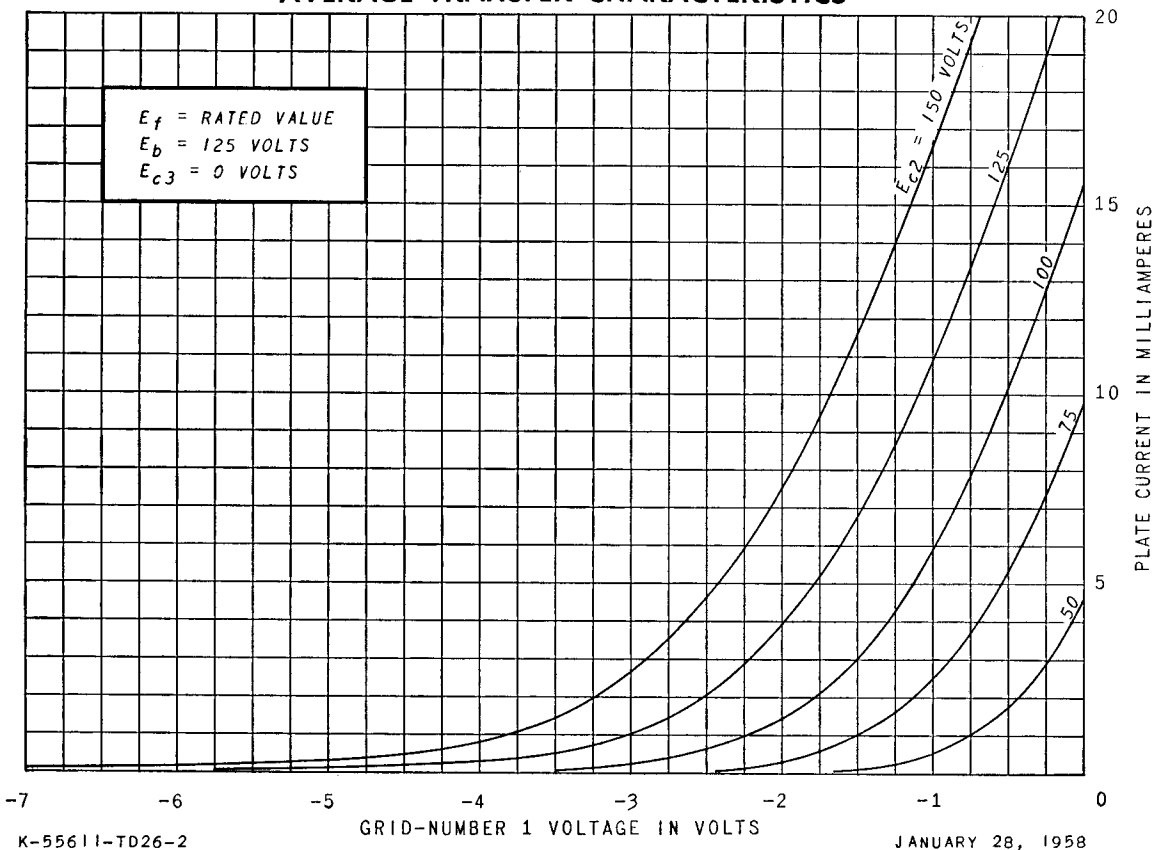


EIA 5-2

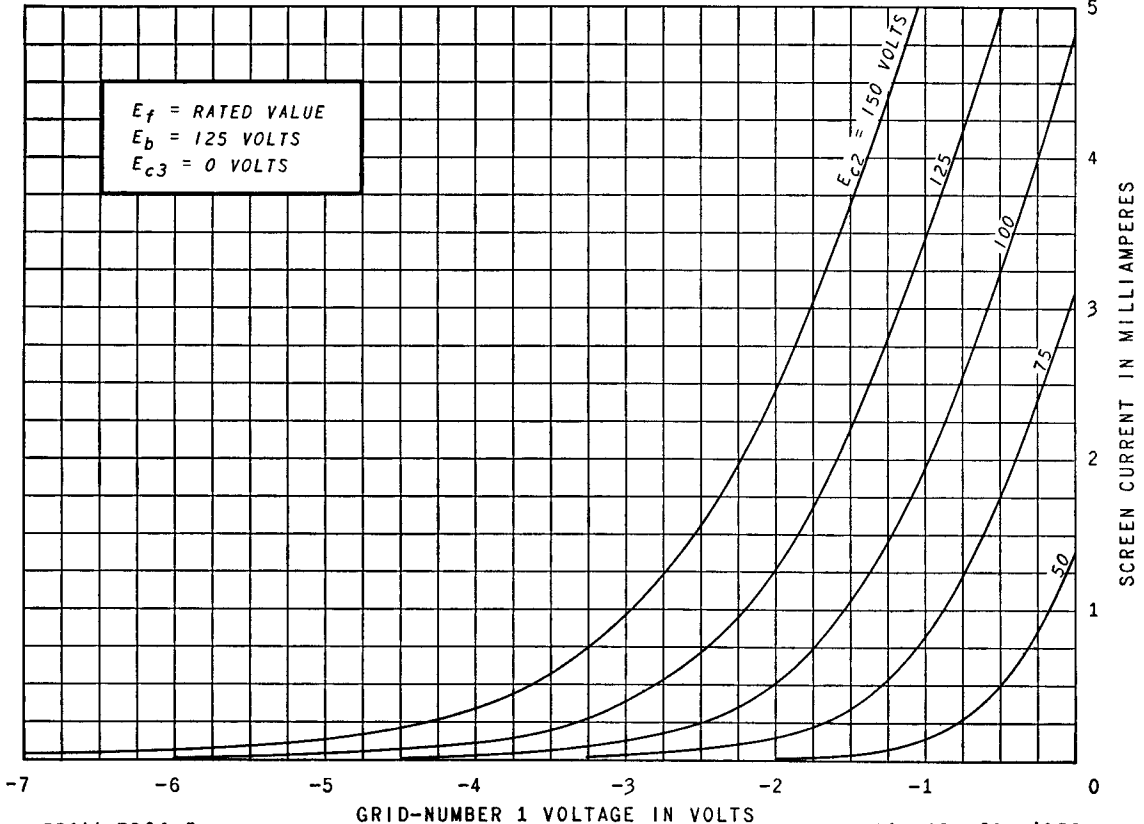
**AVERAGE PLATE CHARACTERISTICS**



**AVERAGE TRANSFER CHARACTERISTICS**



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