

**DESCRIPTION AND RATING**

The 6EW6 is a miniature, sharp-cutoff pentode designed for intermediate-frequency amplifier service in television receivers. Features of the tube include high transconductance and separate base-pin terminals for the cathode and suppressor.

**GENERAL**

**ELECTRICAL**

Cathode—Coated Unipotential			
Heater Voltage, AC or DC	6.3	± 10%	Volts
Heater Current	0.4		Amperes
	<b>With Shield*</b>	<b>Without Shield</b>	
Direct Interelectrode Capacitances			
Grid-Number 1 to Plate, maximum	0.03	0.04	μμf
Input	10.0	10.0	μμf
Output	3.4	2.4	μμf

**MECHANICAL**

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

**MAXIMUM RATINGS**

**DESIGN-MAXIMUM VALUES**

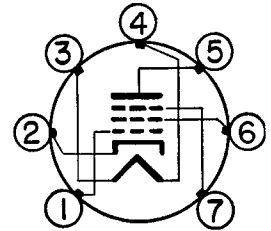
Plate Voltage	330	Volts
Screen-Supply Voltage	330	Volts
Screen Voltage—See Screen Rating Chart		
Positive DC Grid-Number 1 Voltage	0	Volts
Plate Dissipation	3.1	Watts
Screen Dissipation	0.65	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
DC Component	100	Volts
Total DC and Peak	200	Volts
Heater Negative with Respect to Cathode		
Total DC and Peak	200	Volts

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey 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, taking responsibility for the effects of changes in operating conditions due to variations in tube characteristics.

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, and environmental conditions.

**BASING DIAGRAM**

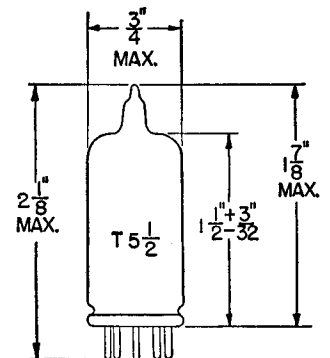


EIA 7CM

**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

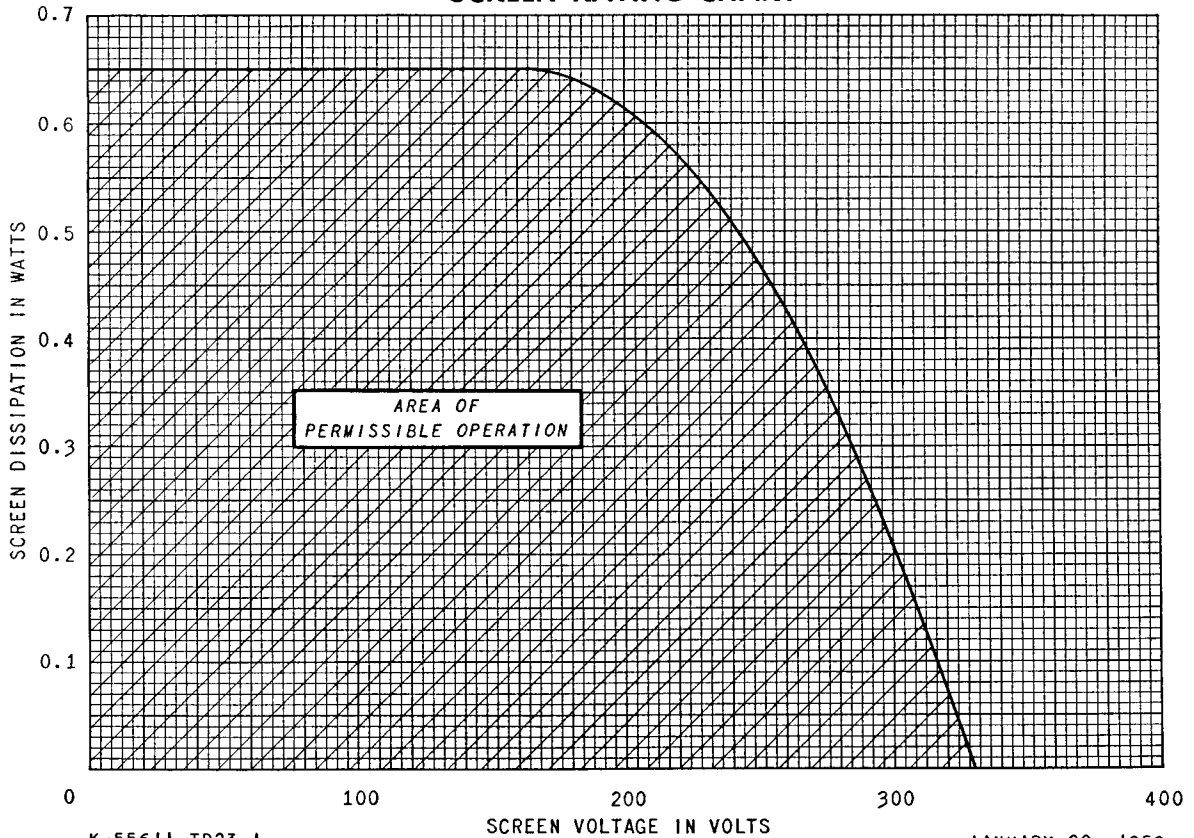
## CHARACTERISTICS AND TYPICAL OPERATION

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

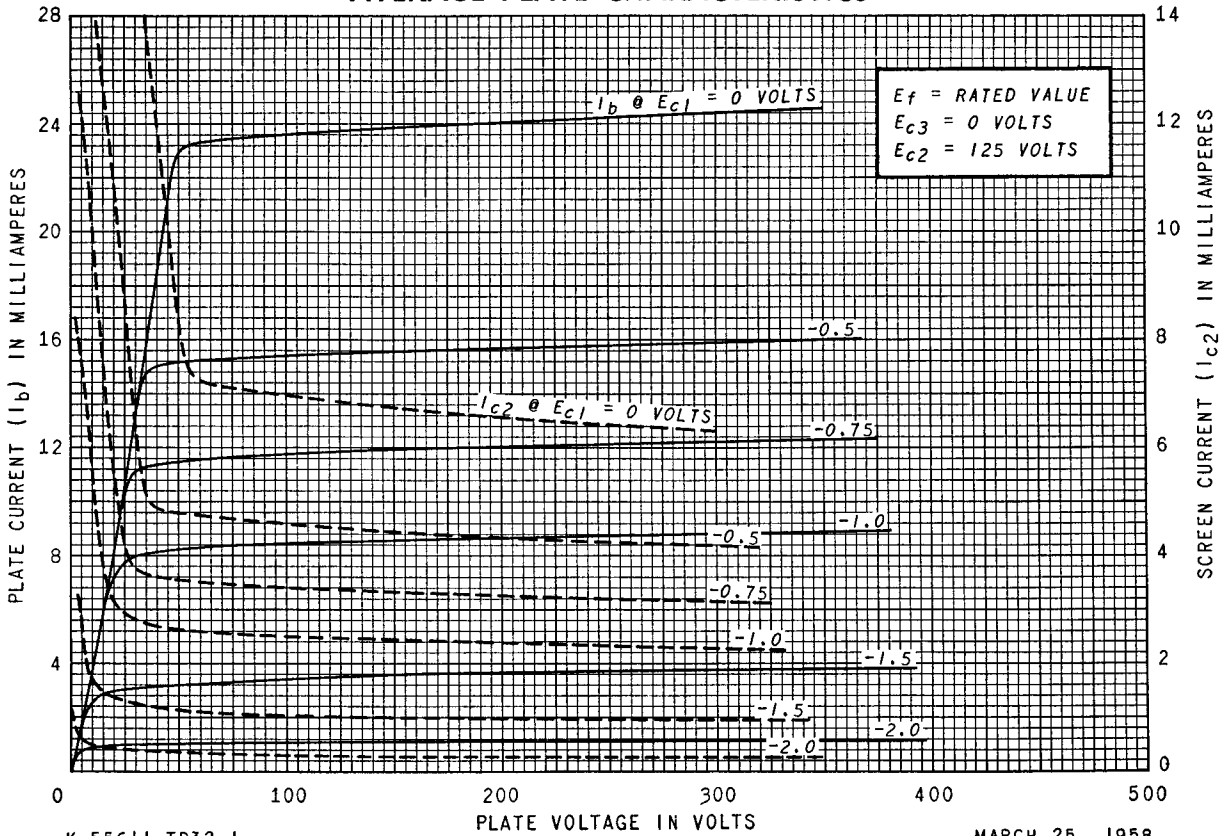
Plate Voltage . . . . .	125	Volts
Suppressor, Connected to Cathode at Socket		
Screen Voltage . . . . .	125	Volts
Cathode-Bias Resistor . . . . .	56	Ohms
Plate Resistance, approximate . . . . .	0.2	Megohms
Transconductance . . . . .	14000	Micromhos
Plate Current . . . . .	11	Milliamperes
Screen Current . . . . .	3.2	Milliamperes
Grid-Number 1 Voltage, approximate		
I <sub>b</sub> = 20 Microamperes . . . . .	-3.5	Volts

\* With external shield (EIA 316) connected to cathode.

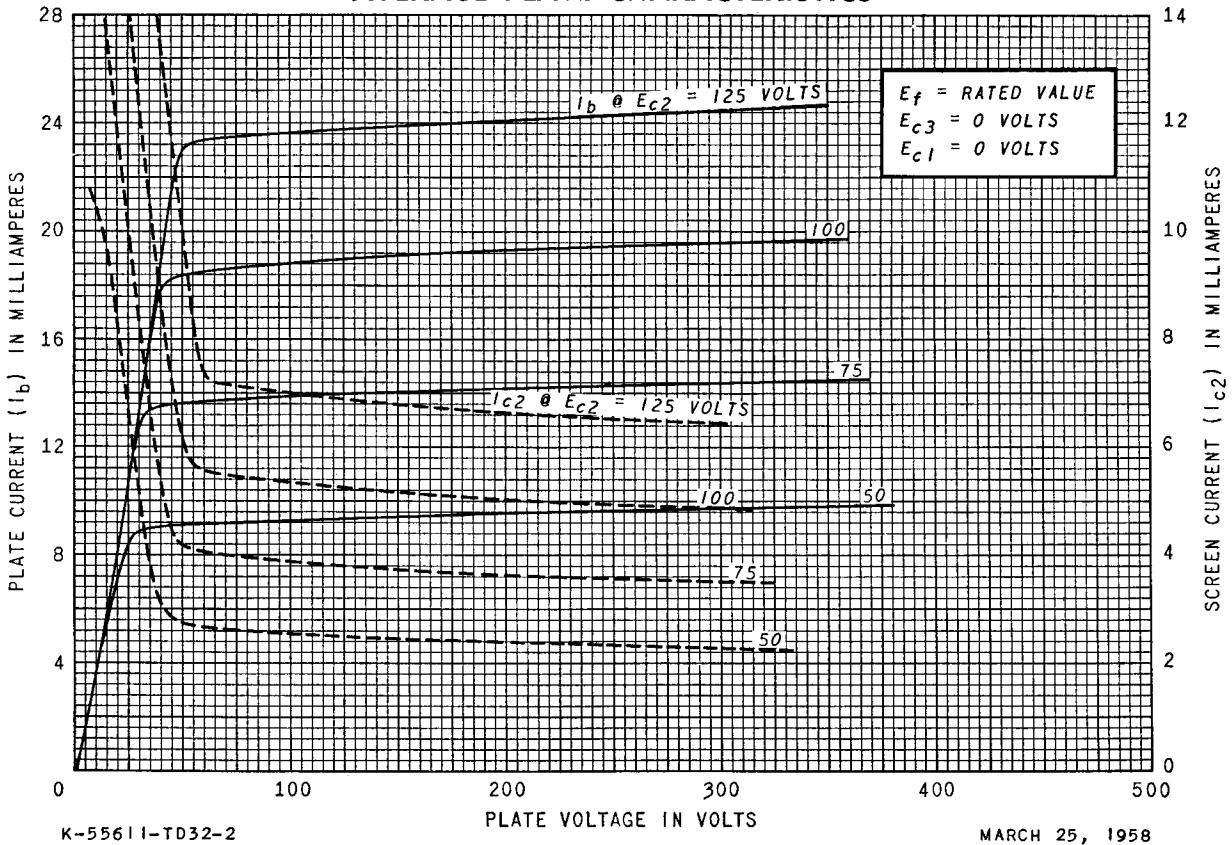
### SCREEN RATING CHART



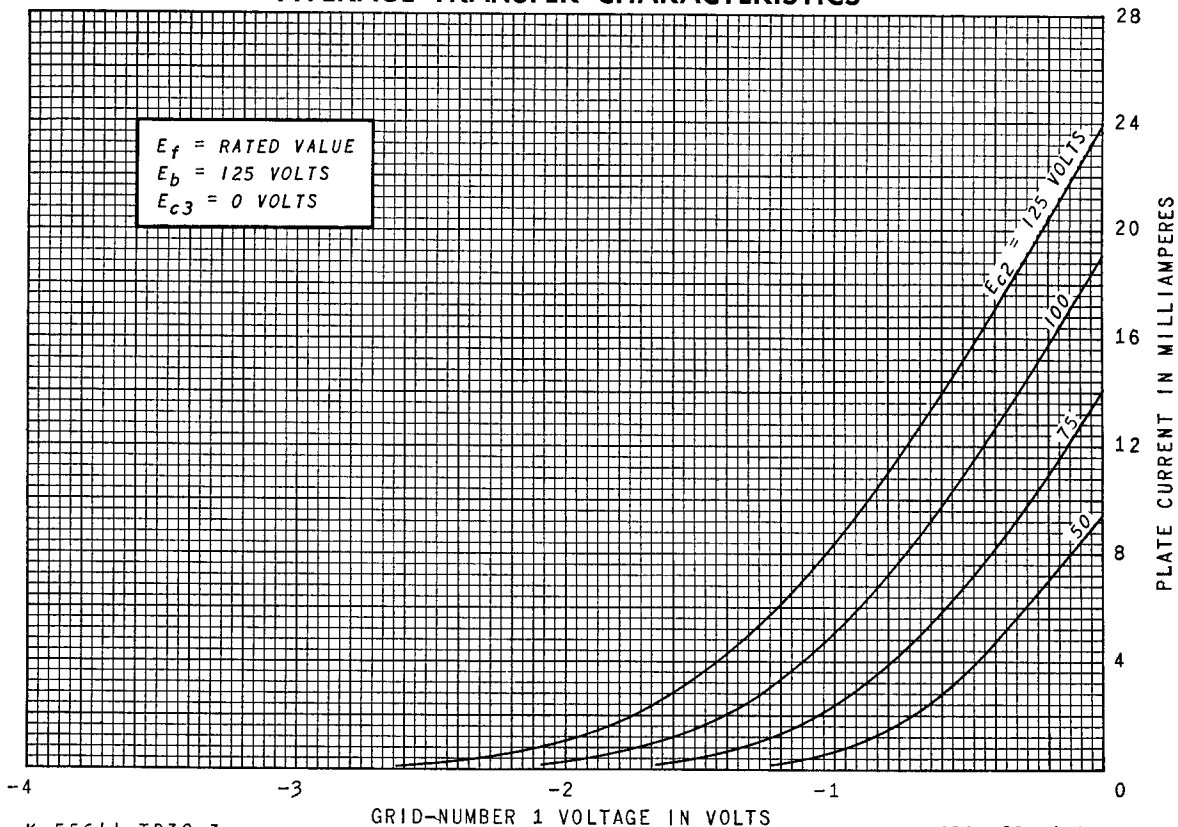
**AVERAGE PLATE CHARACTERISTICS**



**AVERAGE PLATE CHARACTERISTICS**



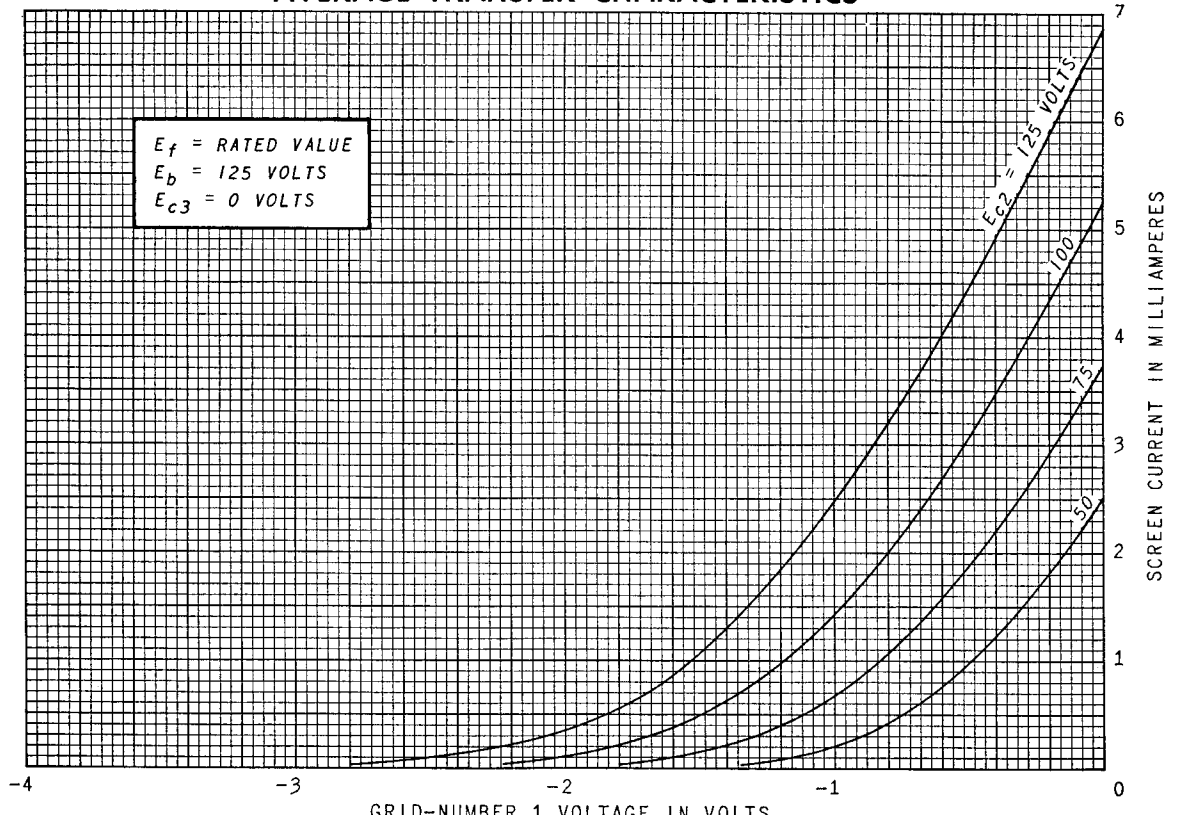
### AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD32-3

MARCH 25, 1958

### AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD32-4

MARCH 25, 1958

### AVERAGE TRANSFER CHARACTERISTICS

