

**BEAM PENTODE**

**FOR TV VERTICAL-DEFLECTION-AMPLIFIER APPLICATIONS**

**DESCRIPTION AND RATING**

The 6EZ5 is a beam-power pentode designed for use as the vertical-deflection amplifier in television receivers that employ 110-degree deflection picture tubes. Features of the tube include high perveance and high plate dissipation.

**ELECTRICAL**

Cathode—Coated Unipotential	
Heater Voltage, AC or DC	6.3 ± 10% Volts
Heater Current	0.8 Amperes
Direct Interelectrode Capacitances, approximate*	
Grid-Number 1 to Plate	0.6 μμf
Input	9.0 μμf
Output	7.0 μμf

**GENERAL**

**MECHANICAL**

Mounting Position—Any  
Envelope—T-9, Glass  
Base—B6-81, Intermediate-Shell Octal 6-Pin

**MAXIMUM RATINGS**

**VERTICAL-DEFLECTION-AMPLIFIER SERVICE†  
DESIGN-MAXIMUM VALUES**

DC Plate Voltage	350 Volts
Peak Pulse Plate Voltage	2500 Volts
Screen Voltage	300 Volts
Plate Dissipation†	12 Watts
Screen Dissipation†	2.75 Watts
DC Cathode Current	.75 Milliamperes
Peak Cathode Current	260 Milliamperes
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 Cathode Bias	2.2 Megohms
With Fixed Bias	1.0 Megohms
Bulb Temperature at Hottest Point	200 C

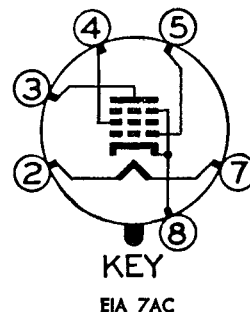
Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

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.

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.

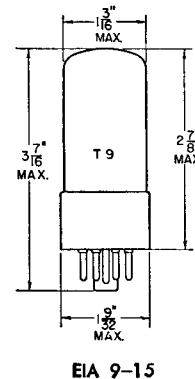
**BASING DIAGRAM**



**TERMINAL CONNECTIONS**

- Pin 2—Heater
- Pin 3—Plate
- Pin 4—Grid Number 2 (Screen)
- Pin 5—Grid Number 1
- Pin 7—Heater
- Pin 8—Cathode and Beam Plates

**PHYSICAL DIMENSIONS**



## CHARACTERISTICS AND TYPICAL OPERATION

### AVERAGE CHARACTERISTICS

Plate Voltage .....	60	250 Volts
Screen Voltage .....	250	250 Volts
Grid-Number 1 Voltage .....	0§	-20 Volts
Plate Resistance, approximate .....	...	50000 Ohms
Transconductance .....	...	4100 Micromhos
Plate Current .....	180	43 Milliampers
Screen Current .....	26	3.5 Milliampers
Grid-Number 1 Voltage, approximate I <sub>b</sub> = 100 Microampers .....	...	-50 Volts

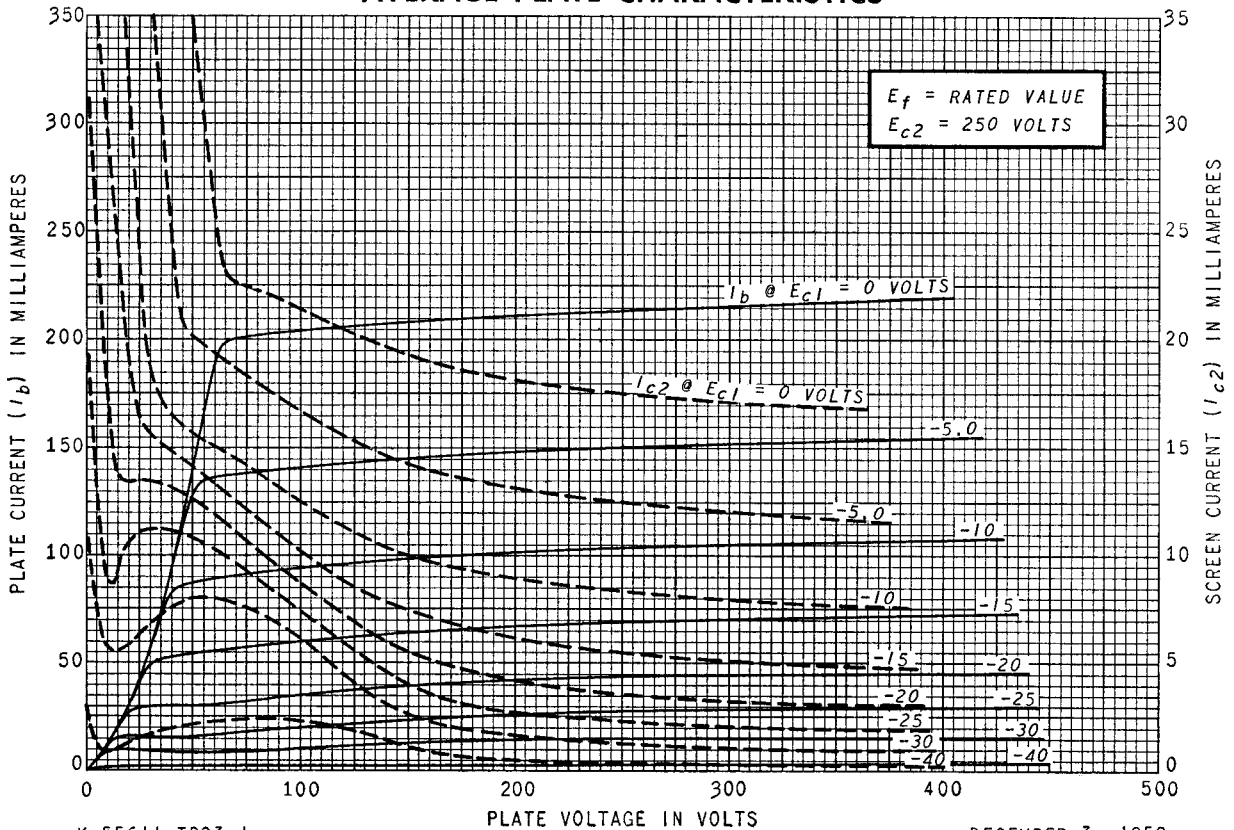
\* Without external shield.

† For operation in a 525-line, 30-frame television system as described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission. The duty cycle of the voltage pulse must not exceed 15 percent of one scanning cycle.

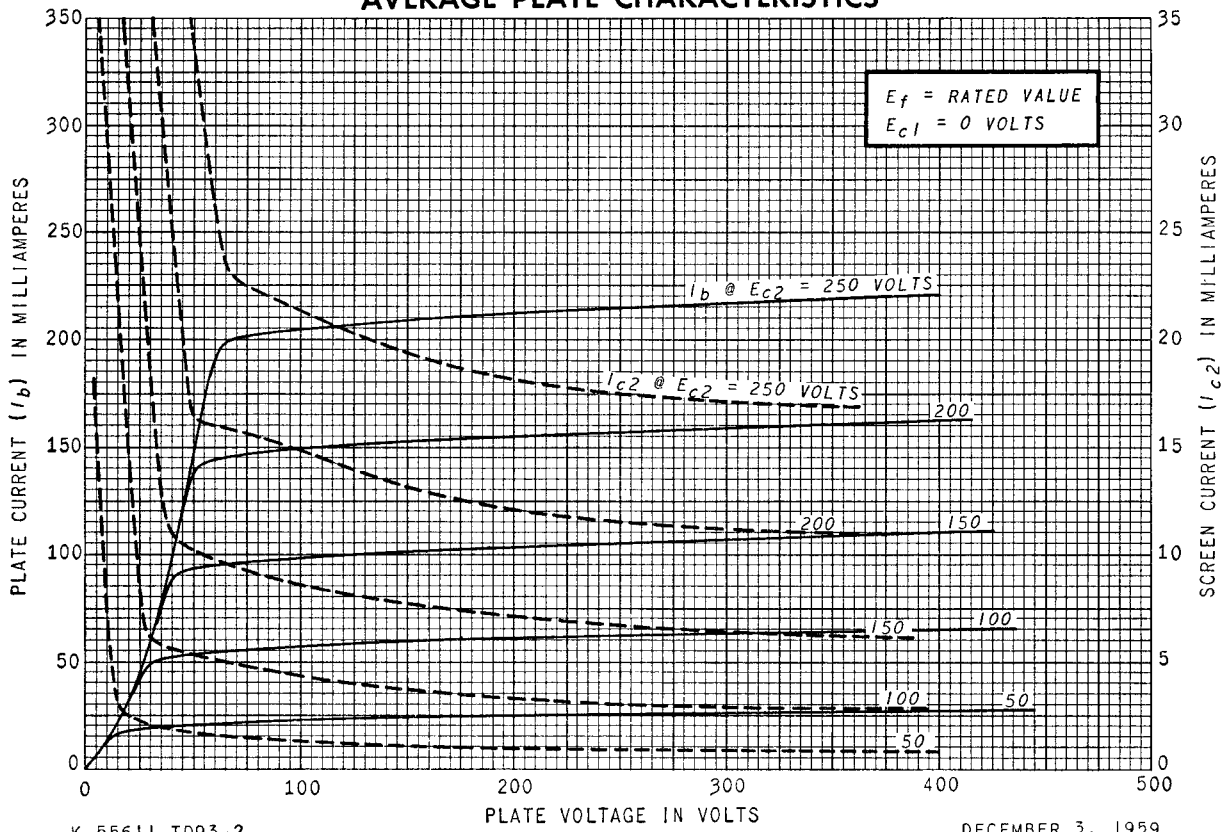
‡ In stages operating with grid leak bias, an adequate cathode-bias resistor or other suitable means is required to protect the tube in the absence of excitation.

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

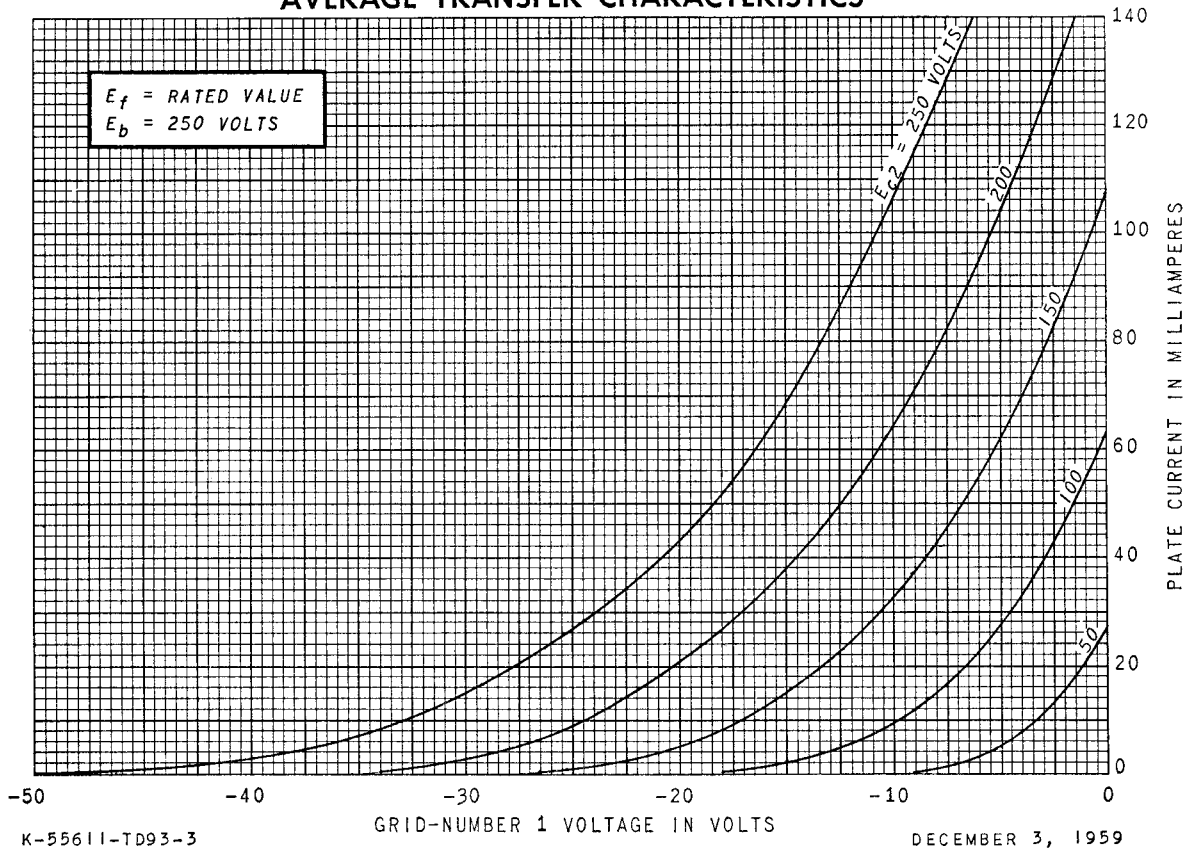
### AVERAGE PLATE CHARACTERISTICS



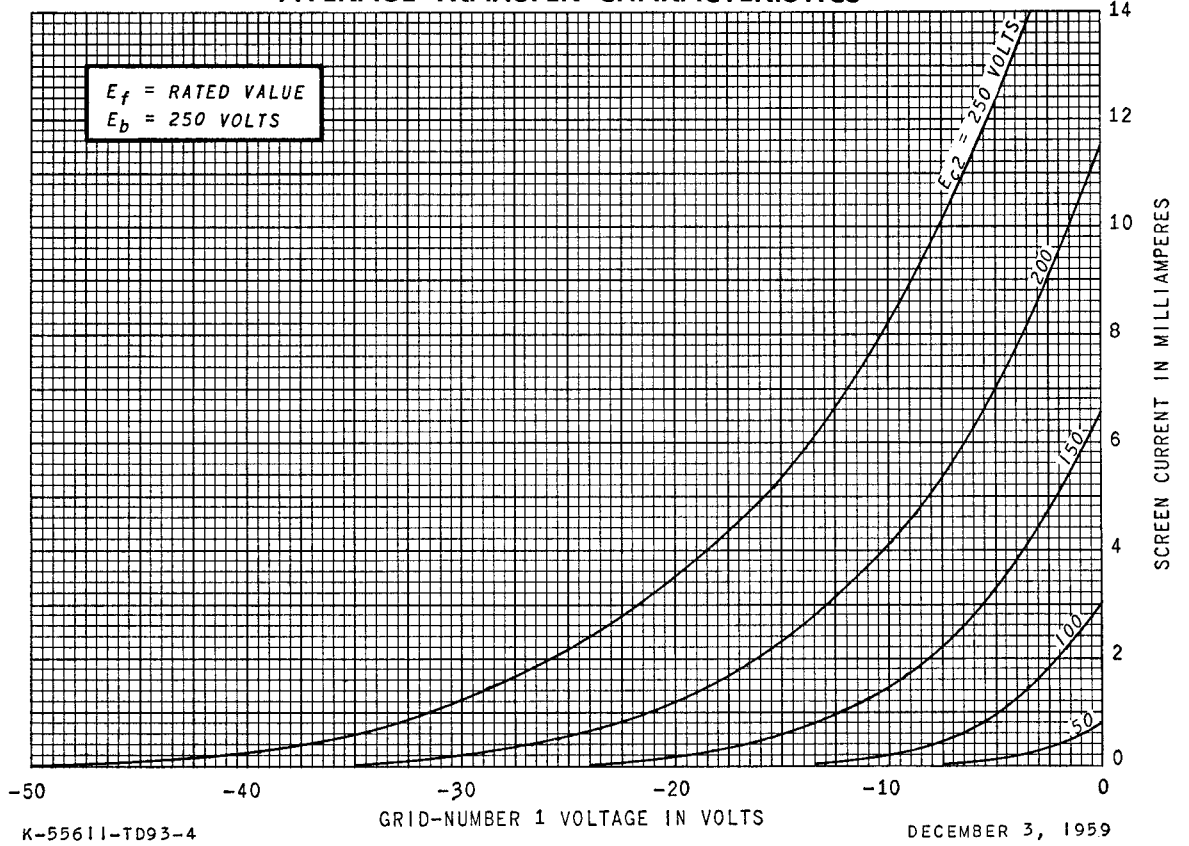
**AVERAGE PLATE CHARACTERISTICS**



**AVERAGE TRANSFER CHARACTERISTICS**



### AVERAGE TRANSFER CHARACTERISTICS



ELECTRONIC COMPONENTS DIVISION  
**GENERAL**  **ELECTRIC**  
Schenectady 5, N. Y.