

### DESCRIPTION AND RATING

The 6CE5 is a miniature sharp-cutoff pentode designed for use as a wide-band, radio-frequency amplifier in television receivers. Features of the tube include high transconductance and low interelectrode capacitance. The 6CE5 also exhibits a controlled heater warm-up characteristic which makes it especially suited for use in television receivers that employ series-connected heaters.

Except for heater ratings, the 3CE5 and the 4CE5 are identical to the 6CE5.

### GENERAL

#### ELECTRICAL

	3CE5	4CE5	6CE5	
Cathode—Coated Unipotential				
Heater Voltage, AC or DC	3.15	4.2	6.3	Volts
Heater Current	0.6	0.45	0.3	Amperes
Heater Warm-up Time*	11	11	11	Seconds
Direct Interelectrode Capacitances†				
Grid-Number 1 to Plate, maximum			0.03	μμf
Input			6.5	μμf
Output			1.9	μμf

#### MECHANICAL

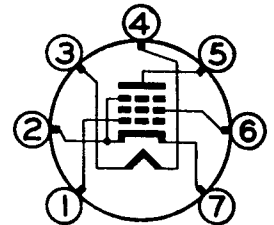
Mounting Position—Any  
Envelope—T-5½, Glass  
Base—E7-1, Miniature Button 7-Pin

### MAXIMUM RATINGS

#### DESIGN-CENTER VALUES

Plate Voltage	300	Volts
Screen-Supply Voltage	300	Volts
Screen Voltage—See Screen Rating Chart		
Positive DC Grid-Number 1 Voltage	0	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	200	Volts

### BASING DIAGRAM

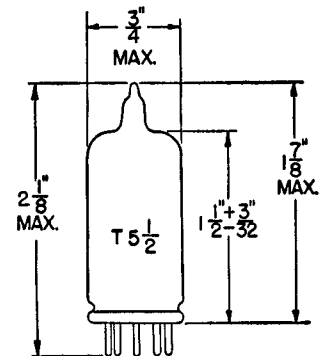


RETMA 7BD

### TERMINAL CONNECTIONS

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

### PHYSICAL DIMENSIONS



RETMA 5-2

## CHARACTERISTICS AND TYPICAL OPERATION

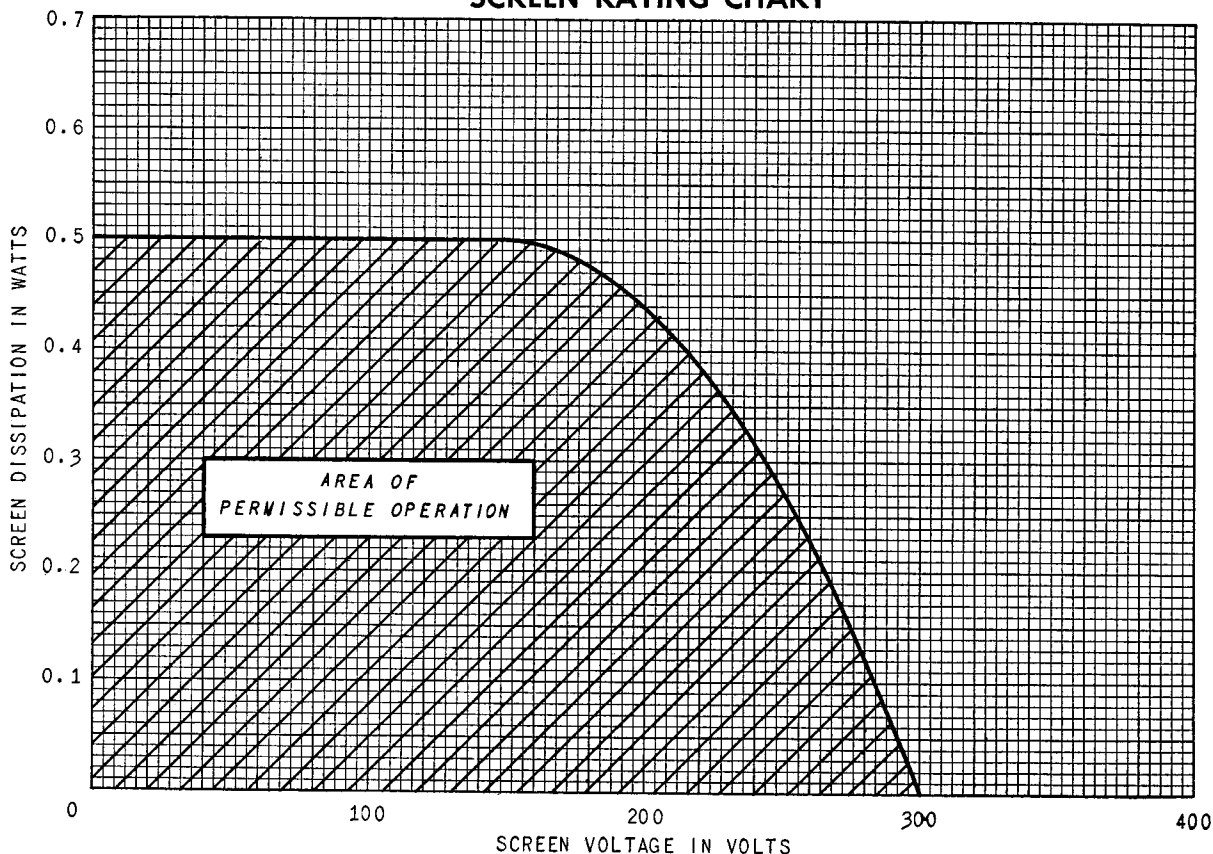
### CLASS A<sub>1</sub> AMPLIFIER

Plate Voltage .....	125	Volts
Screen Voltage .....	125	Volts
Grid-Number 1 Supply Voltage .....	-1.0	Volts
Grid-Number 1 Resistor (bypassed) .....	1.0	Megohms
Plate Resistance, approximate .....	0.3	Megohms
Transconductance .....	.7600	Micromhos
Plate Current .....	11	Milliamperes
Screen Current .....	2.8	Milliamperes
Grid-Number 1 Voltage, approximate		
$I_b = 35$ Microamperes .....	-5.0	Volts

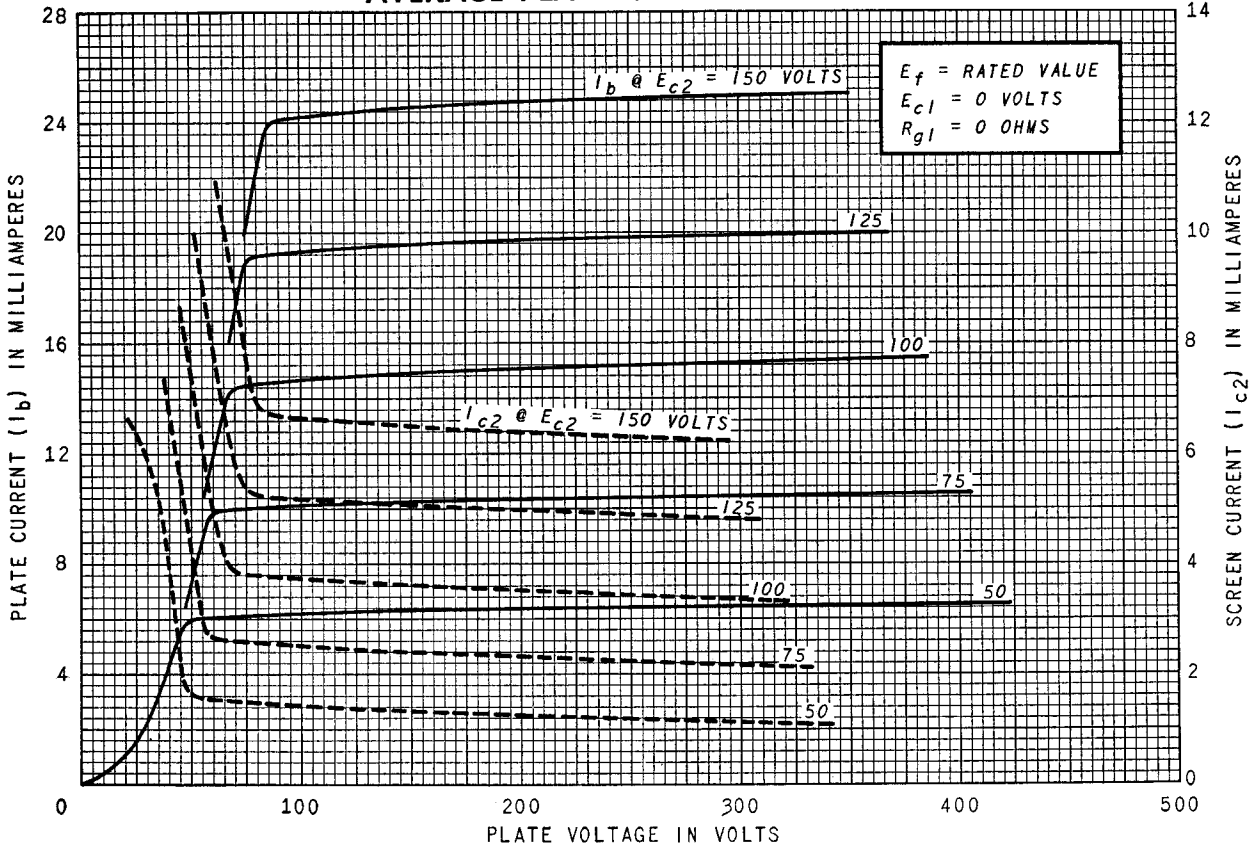
\* The time required for the voltage across the heater to reach 80 per cent of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times the rated heater voltage divided by the rated heater current.

† Without external shield.

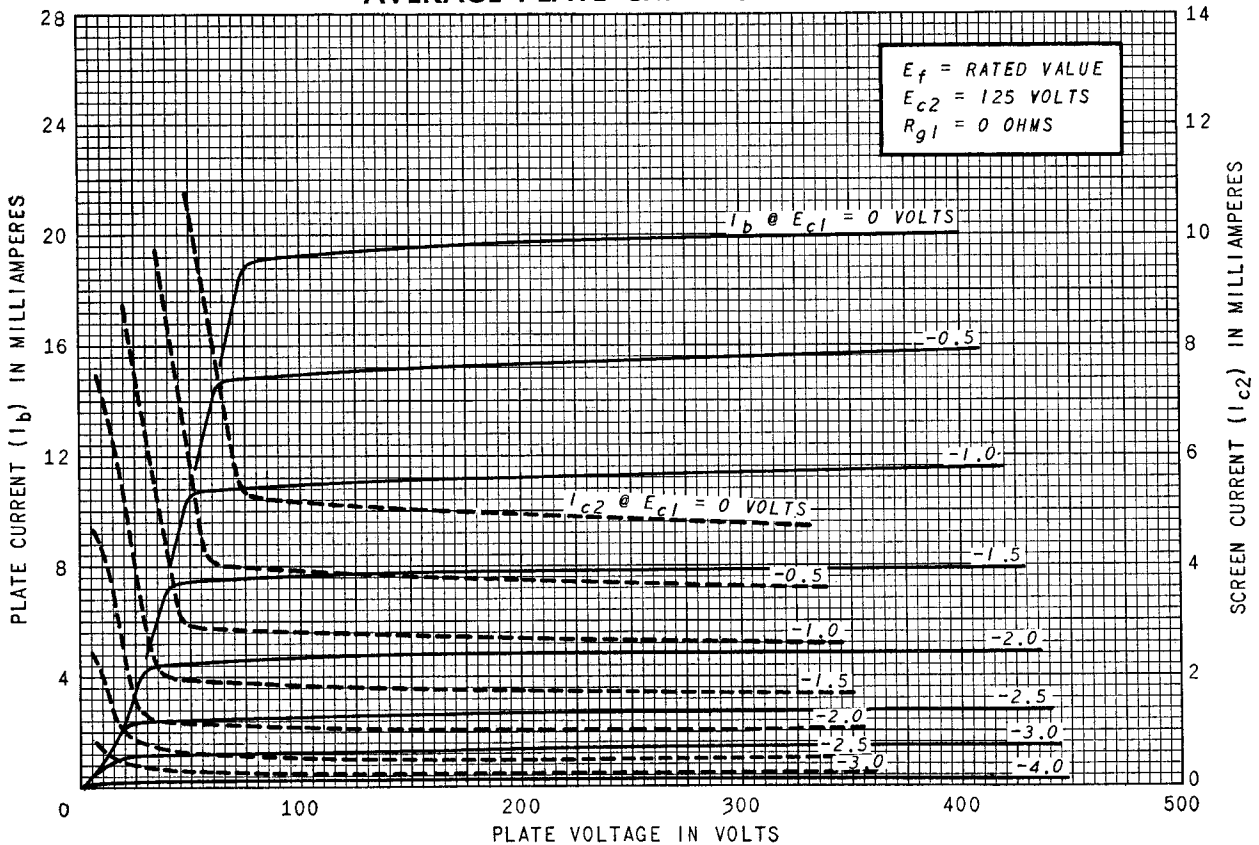
### SCREEN RATING CHART



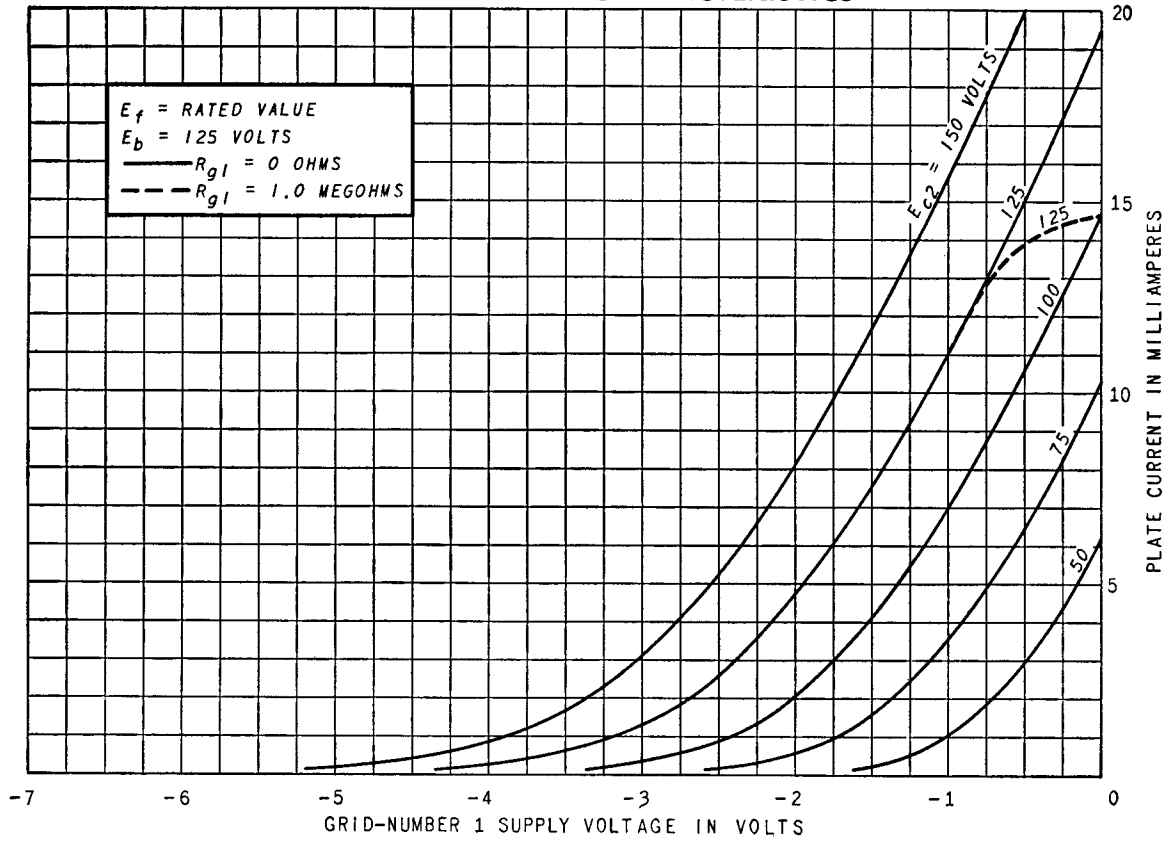
### AVERAGE PLATE CHARACTERISTICS



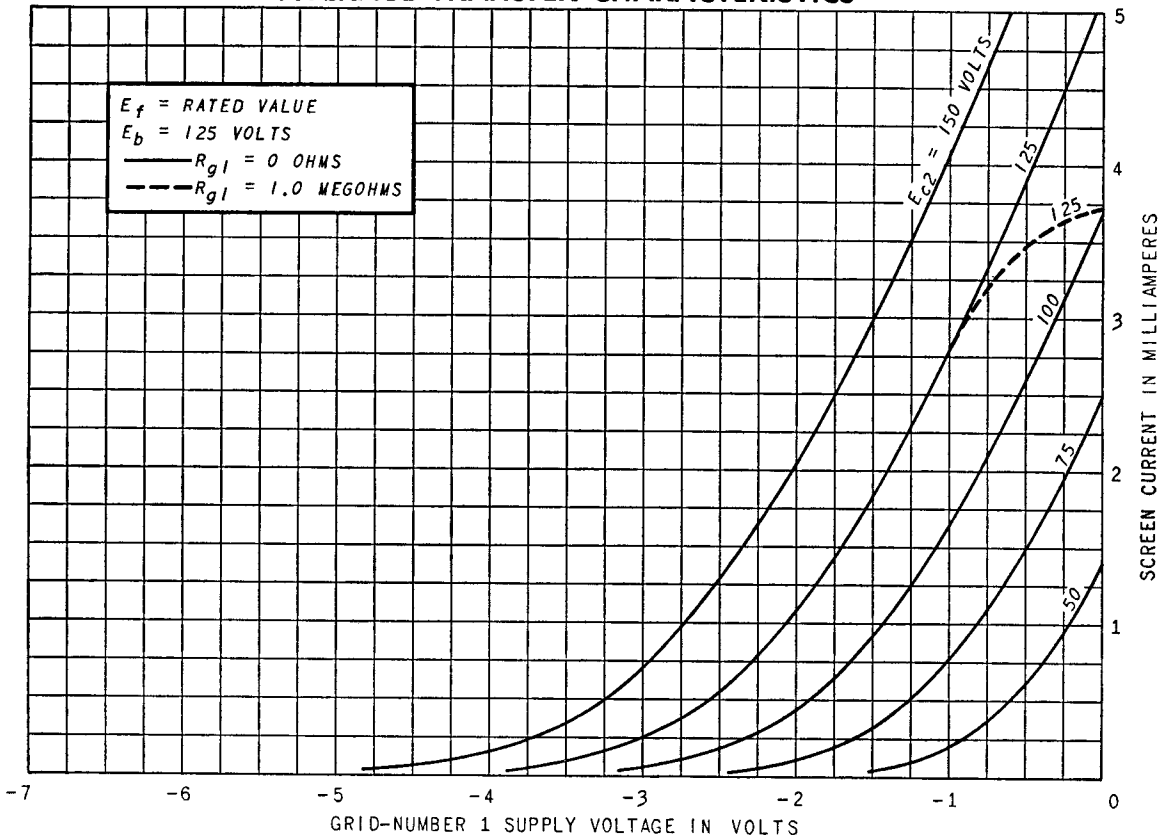
### AVERAGE PLATE CHARACTERISTICS



### AVERAGE TRANSFER CHARACTERISTICS



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**AVERAGE TRANSFER CHARACTERISTICS**

