



6DE6

# SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

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## GENERAL DATA

### Electrical:

Heater, for Unipotential Cathode:

Voltage . . . . .	6.3 ± 10%	volts
Current . . . . .	0.3	amp

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield<sup>o</sup></i>	
Grid No.1 to plate . . . . .	0.025 max.	0.015 max.	μf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater . . . . .	6.5	6.5	μf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater . . . . .	2	3	μf

### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Supply Voltage . . . . .	125	volts
Grid No.3 . . . . .	↓	
Grid-No.2 Supply Voltage . . . . .	125	volts
Cathode Resistor . . . . .	56	ohms
Plate Resistance (Approx.) . . . . .	0.25	megohm
Transconductance . . . . .	8000	μmhos
Plate Current . . . . .	15.5	ma
Grid-No.2 Current . . . . .	4.2	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20 . . . . .	-9	volts
Grid-No.1 Voltage (Approx.) for transconductance (μmhos) = 700 and cathode resistor (ohms) = 0 . . . .	-5.5	volts

### Mechanical:

Operating Position . . . . .	Any
Maximum Overall Length . . . . .	2-1/8"
Maximum Seated Length . . . . .	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	1-1/2" ± 3/32"
Diameter . . . . .	0.650" to 0.750"
Dimensional Outline . . . . .	.See General Section
Bulb . . . . .	T5-1/2
Base . . . . .	Small-Button Miniature 7-Pin (JEDEC No.E7-1)

← Indicates a change.

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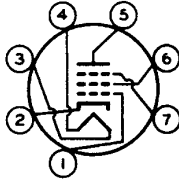


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### SHARP-CUTOFF PENTODE

Basing Designation for BOTTOM VIEW . . . . . 7CM

Pin 1 - Grid No.1  
 Pin 2 - Cathode  
 Pin 3 - Heater  
 Pin 4 - Heater  
 Pin 5 - Plate



Pin 6 - Grid No.2  
 Pin 7 - Grid No.3,  
 Internal  
 Shield

#### AMPLIFIER — Class A<sub>1</sub>

#### → Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE. . . . . 330 max. volts  
 GRID-No.3 (SUPPRESSOR-GRID) VOLTAGE. . . . . 0 max. volts  
 GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE . . . . . 330 max. volts  
 GRID-No.2 VOLTAGE. . . . . *See Grid-No.2 Input*

*Rating Chart at front of Receiving Tube Section*

GRID-No.1 (CONTROL-GRID) VOLTAGE:  
 Positive-bias value. . . . . 0 max. volts

GRID-No.2 INPUT:  
 For grid-No.2 voltages up  
 to 165 volts . . . . . 0.55 max. watt  
 For grid-No.2 voltages be-  
 tween 165 and 330 volts. . . . . *See Grid-No.2 Input*

*Rating Chart at front of Receiving Tube Section*

PLATE DISSIPATION. . . . . 2.3 max. watts

PEAK HEATER-CATHODE VOLTAGE:  
 Heater negative with  
 respect to cathode . . . . . 200 max. volts  
 Heater positive with  
 respect to cathode . . . . . 200<sup>▲</sup> max. volts

#### Maximum Circuit Values:

Grid-No.1-Circuit Resistance:  
 For fixed-bias operation . . . . . 0.25 max. megohm  
 For cathode-bias operation . . . . . 1 max. megohm

<sup>○</sup> With external shield JEDEC No.316 connected to cathode.

<sup>◆</sup> Connected to cathode at socket.

<sup>▲</sup> The dc component must not exceed 100 volts.

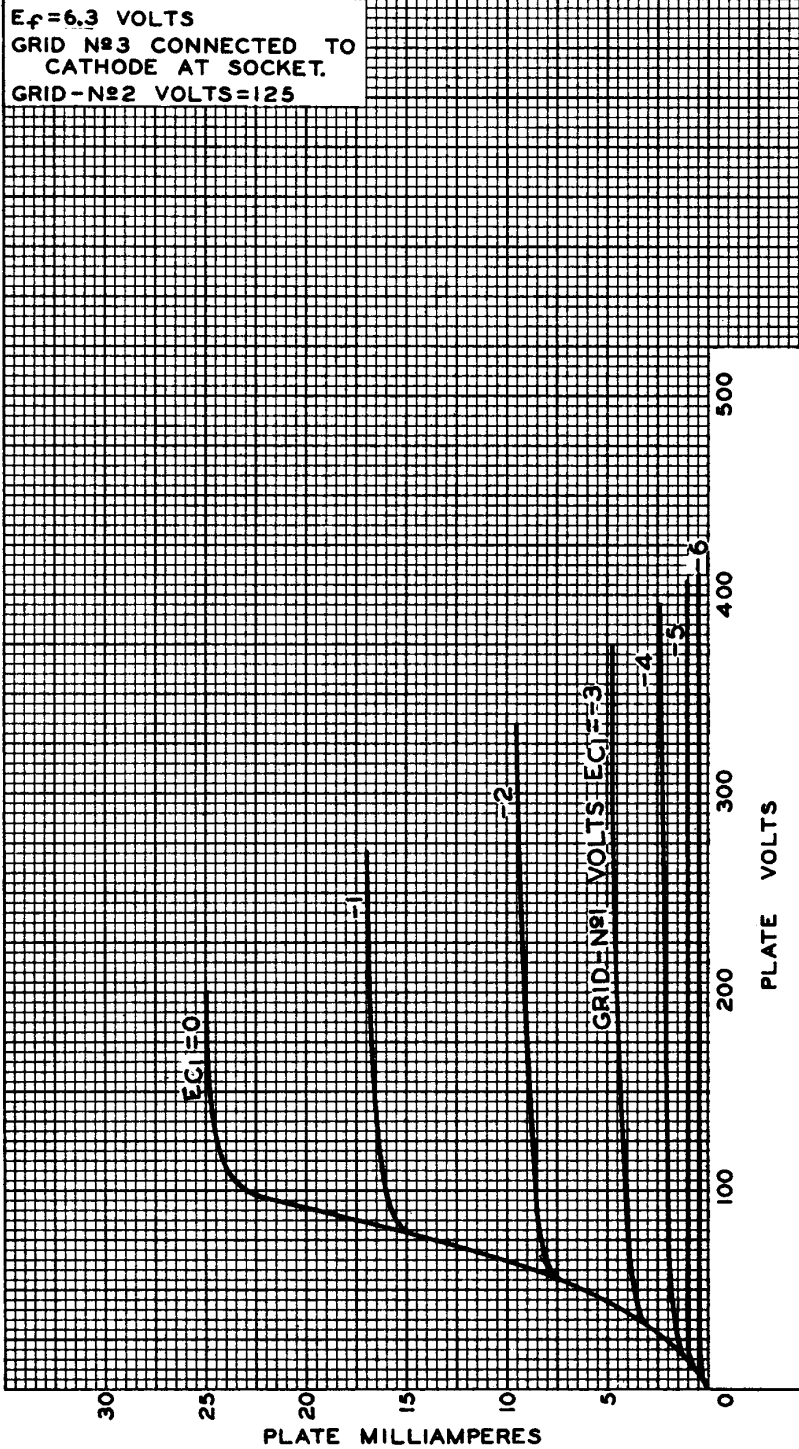
→ Indicates a change.



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### AVERAGE PLATE CHARACTERISTICS



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### AVERAGE CHARACTERISTICS

