



6DK6

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# SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

## DATA

### Electrical:

Heater, for Unipotential Cathode:

Voltage . . . . .	6.3	ac or dc volts
Current . . . . .	0.3	amp

Direct Interelectrode Capacitances:<sup>0</sup>

Grid No.1 to plate . . . . .	0.02 max.	$\mu\text{f}$
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater . . . . .	6.3	$\mu\text{f}$
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater. . . . .	1.9	$\mu\text{f}$

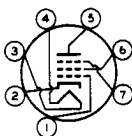
### Characteristics, Class A<sub>1</sub> Amplifier:

Plate-Supply Voltage . . . . .	125	volts
Grid-No.3. . . . .	<i>Connected to cathode at socket</i>	
Grid-No.2-Supply Voltage . . . . .	125	volts
Cathode Resistor . . . . .	56	ohms
Plate Resistance (Approx.) . . . . .	0.35	megohm
Transconductance . . . . .	9800	$\mu\text{mhos}$
Plate Current . . . . .	12	ma
Grid-No.2 Current . . . . .	3.8	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 20$ . . . . .	-6.5	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" $\pm$ 3/32"
Diameter . . . . .	0.650" to 0.750"
Dimensional Outline . . . . .	<i>See General Section</i>
Bulb . . . . .	T5-1/2
Base . . . . .	Small-Button Miniature 7-Pin (JEDEC No.E7-1)
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

<sup>0</sup>: See next page.

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GRID-No.2 VOLTAGE. . . . .	See Grid-No.2 Input <i>Rating Chart at front of Receiving Tube Section</i>
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 between	
165 and 330 volts. . . . .	See Grid-No.2 Input <i>Rating Chart at front of Receiving Tube Section</i>
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
<b>Maximum Circuit Values:</b>	
Grid-No.1-Circuit Resistance:	
For fixed-bias operation . . . . .	0.25 max. megohm
For cathode-bias operation . . . . .	1 max. megohm

<sup>0</sup> Without external shield.

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



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### AVERAGE CHARACTERISTICS

$E_f = 6.3$  VOLTS  
GRID N<sup>o</sup>3 CONNECTED TO  
CATHODE AT SOCKET.  
GRID-N<sup>o</sup>2 VOLTS = I25

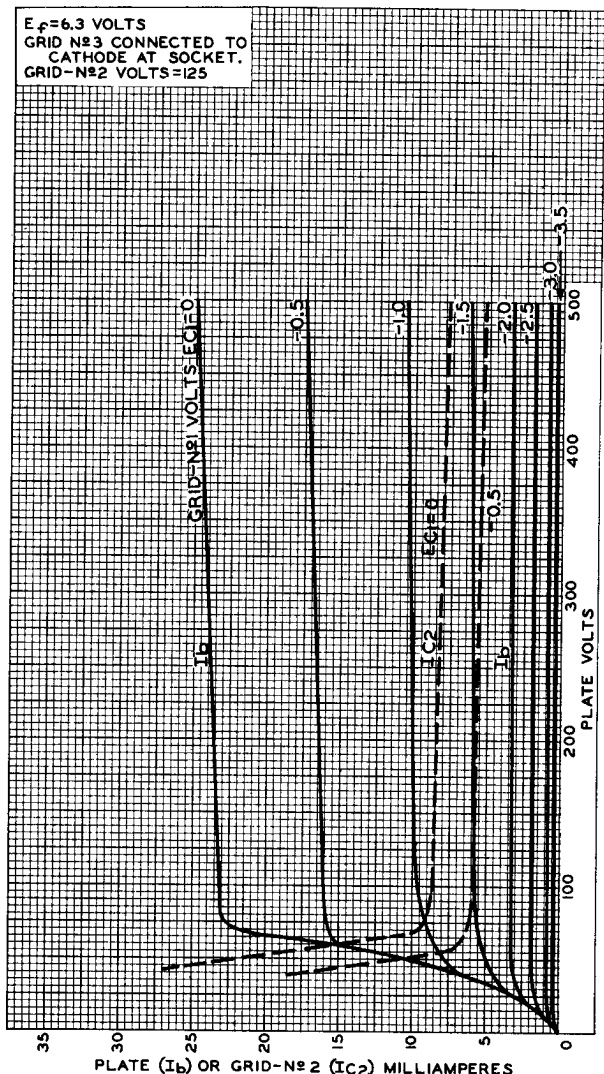


PLATE (I<sub>b</sub>) OR GRID-N<sup>o</sup>2 (I<sub>c2</sub>) MILLIAMPERES

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## AVERAGE CHARACTERISTICS

