



6AM8-A

# 6AM8-A DIODE—SHARP-CUTOFF PENTODE

9-PIN MINIATURE TYPE

With heater having controlled warm-up time

## GENERAL DATA

### Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC) . . . . .	6.3	volts
Current . . . . .	0.45 ± 6%	amp
Warm-up time (Average.) . . . . .	11	sec

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

#### Diode Unit:

Plate to cathode and heater . . . . .	1.8	μmf
Cathode to plate and heater . . . . .	3	μmf

#### Pentode Unit:

Grid No.1 to plate. . . . .	0.015 max.	μmf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater. . . . .	6.5	μmf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater. . . . .	2.6	μmf
Pentode grid No.1 to diode plate. . . . .	0.006 max.	μmf
Pentode plate to diode cathode. . . . .	0.15 max.	μmf
Pentode plate to diode plate . . . . .	1 max.	μmf

### Characteristics, Class A<sub>1</sub> Amplifier (Pentode Unit):

Plate Supply Voltage. . . . .	125	volts
Grid No.3 . . . . .	Connected to cathode at socket	
Grid-No.2 Supply Voltage. . . . .	125	volts
Cathode Resistor. . . . .	56	ohms
Plate Resistance (Approx.) . . . . .	0.3	megohm
Transconductance. . . . .	7800	μmhos
Plate Current . . . . .	12.5	ma
Grid-No.2 Current . . . . .	3.2	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20 . . . . .	-6	volts
Grid-No.1 Voltage (Approx.) for plate ma = 2, and cathode resistor (ohms) = 0 . . . . .	-3	volts

### Mechanical:

Operating Position. . . . .	Any
Maximum Overall Length. . . . .	2-3/16"

← Indicates a change.



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Maximum Seated Length. . . . . 1-15/16"  
 Length, Base Seat to Bulb Top (Excluding tip) 1-9/16"  $\pm$  3/32"  
 Diameter . . . . . 0.750" to 0.875"  
 Dimensional Outline. . . . . See General Section  
 Bulb . . . . . T6-1/2  
 Base . . . . . Small-Button Noval 9-Pin (JEDEC No.E9-1)  
 Basing Designation for BOTTOM VIEW . . . . . 9CY

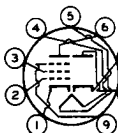
Pin 1 - Pentode  
 Cathode

Pin 2 - Pentode  
 Grid No.1

Pin 3 - Pentode  
 Grid No.2

Pin 4 - Heater

Pin 5 - Heater



Pin 6 - Pentode Plate

Pin 7 - Diode  
 Cathode

Pin 8 - Diode  
 Plate

Pin 9 - Pentode Grid  
 No.3, Internal  
 Shield

PENTODE UNIT — Class A<sub>1</sub> Amplifier

## 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 between 165  
 and 330 volts. . . . . See Grid-No.2 Input Rating Chart  
 at front of Receiving Tube Section

PLATE DISSIPATION. . . . . 3.2 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

## DIODE UNIT

## Maximum Ratings, Design-Maximum Values:

DC PLATE CURRENT . . . . . 5 max. ma

→ Indicates a change.



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## PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 200 max. volts  
Heater positive with respect to cathode. 200<sup>▲</sup> max. volts

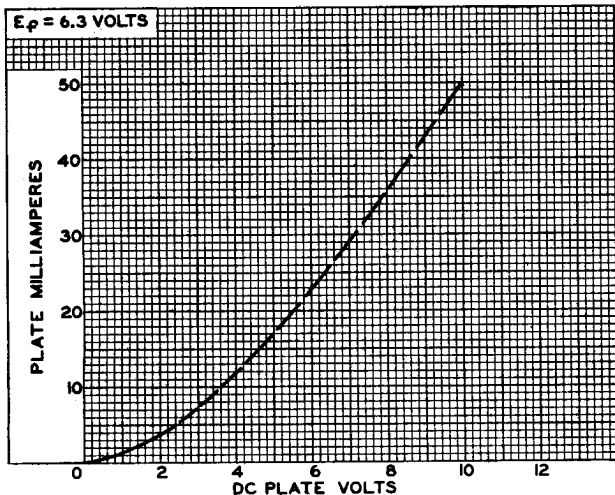
<sup>○</sup> Without external shield.

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

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DATA 2

## AVERAGE PLATE CHARACTERISTIC DIODE UNIT



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AVERAGE CHARACTERISTICS  
PENTODE UNIT

$E_f = 6.3$  VOLTS  
GRID N $\circ$ 3 CONNECTED TO  
CATHODE AT SOCKET.  
GRID-N $\circ$ 2 VOLTS = 150

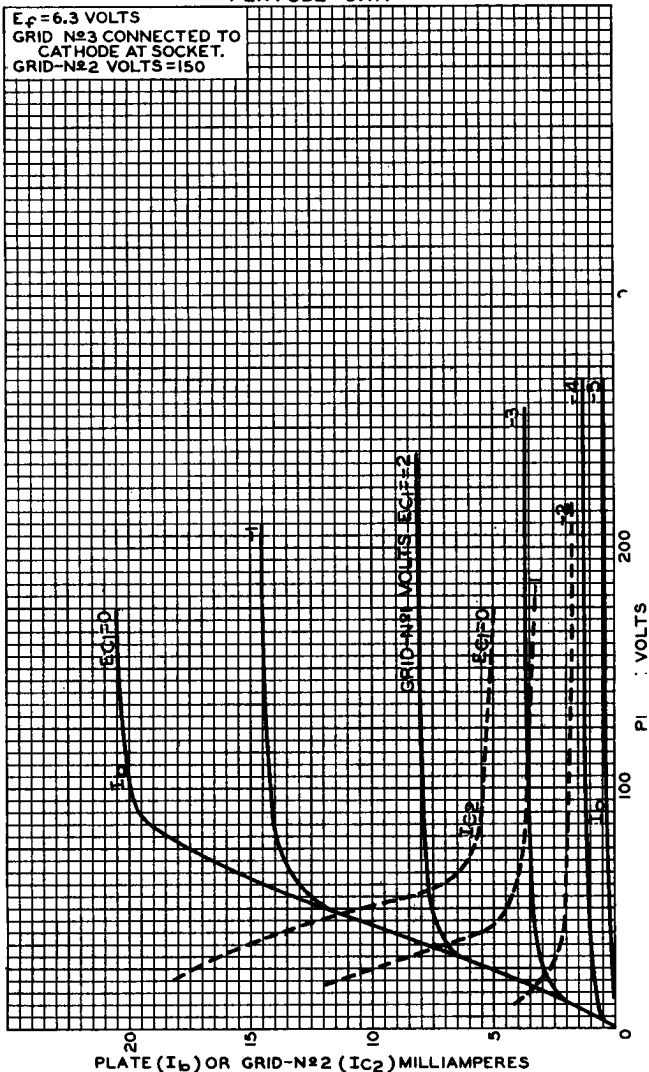


PLATE ( $I_b$ ) OR GRID-N $\circ$ 2 ( $I_{c2}$ ) MILLIAMPERES

ELECTRON TUBE DIVISION

92CM-8505R1

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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# 6AM8-A AVERAGE CHARACTERISTICS PENTODE UNIT

$E_p = 6.3$  VOLTS  
PLATE VOLTS = 125  
GRID-Nº3 CONNECTED TO CATHODE  
AT SOCKET.  
GRID-Nº2 VOLTS = 125

