



6DE6

SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

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GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage. 6.3 $\pm$ 10% volts

Current. 0.3 amp

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield⁰</i>	
Grid No.1 to plate	0.025 max.	0.015 max.	μmf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater	6.5	6.5	μmf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater	2	3	μmf

Characteristics, Class A₁ Amplifier:

Plate Supply Voltage	125	volts
Grid No.3.	$\blacklozenge$	
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 $\mu\text{a} = 20$	-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" $\pm$ 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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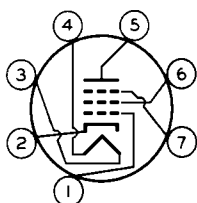


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Basing Designation for BOTTOM VIEW. 7CM

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 A₁→ **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[▲] 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

⁰ With external shield JEDEC No.316 connected to cathode.

[♦] Connected to cathode at socket.

[▲] The dc component must not exceed 100 volts.

→ Indicates a change.

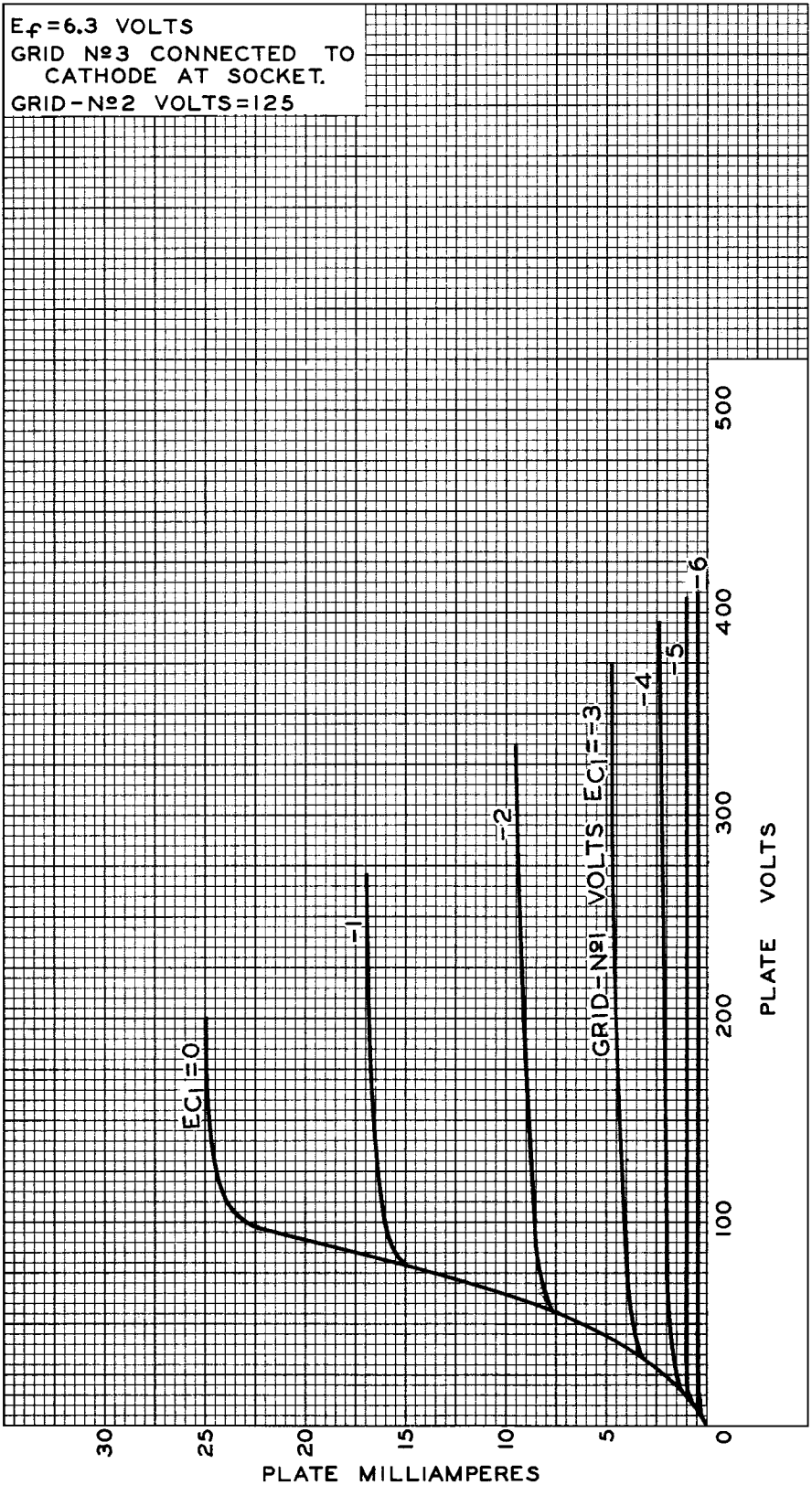


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AVERAGE PLATE CHARACTERISTICS

$E_f = 6.3$ VOLTS
GRID N°3 CONNECTED TO
CATHODE AT SOCKET.
GRID-N°2 VOLTS = 125



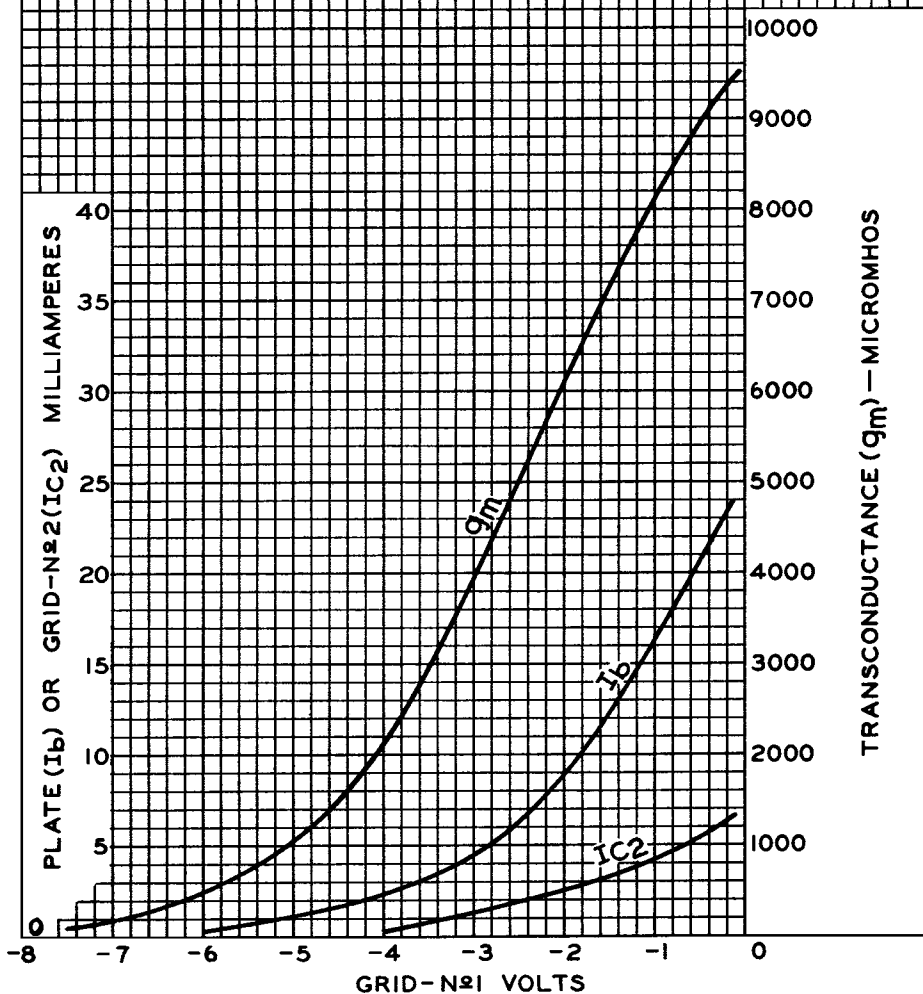
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AVERAGE CHARACTERISTICS

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PLATE VOLTS = 125
GRID N^o3 CONNECTED TO
CATHODE AT SOCKET.
GRID-N^o2 VOLTS = 125



ELECTRON TUBE DIVISION

92CM-8575R1

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY