



6BC5

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SHARP-CUTOFF PENTODE

MINIATURE TYPE

Useful at Frequencies up to 400 Mc

GENERAL DATA**Electrical:**

Heater, for Unipotential Cathode:

Voltage. 6.3 ac or dc volts

Current. 0.3 amp

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield⁰</i>	
Pentode Connection:			
Grid No.1 to plate . . .	0.030 max.	0.020 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	6.5	6.6	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	1.8	2.6	μf
Triode Connection, Grid No.2 connected to plate:			
Grid No.1 to plate and grid No.2.	2.5	2.5	μf
Grid No.1 to cathode & grid No.3 & internal shield, and heater . .	3.9	4.0	μf
Plate and grid No.2 to cathode & grid No.3 & internal shield, and heater . .	3.0	4.3	μf

Mechanical:

Mounting 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"

Maximum Diameter 3/4"

Bulb T-5-1/2

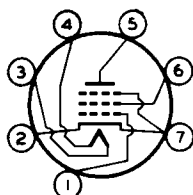
Base Small-Button Miniature 7-Pin (JETEC No.E7-1)

Basing Designation for BOTTOM VIEW 7BD

Pin 1-Grid No.1

Pin 2-Cathode,
Grid No.3,
Internal
Shield

Pin 3-Heater



Pin 4-Heater

Pin 5-Plate

Pin 6-Grid No.2

Pin 7-Same as
Pin 2⁰ With external shield JETEC No.316 connected to cathode.

← Indicates a change.

MAR. 1, 1955

TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

DATA



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SHARP-CUTOFF PENTODE

AMPLIFIER - Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. 300 max. volts
 GRID-No.2 (SCREEN) SUPPLY VOLTAGE. 300 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

PLATE DISSIPATION. 2 max. watts

→ GRID-No.2 INPUT:

For grid-No.2 voltages up to 150 volts 0.5 max. watt

For grid-No.2 voltages between 150

and 300 volts. See Grid-No.2 Input Rating Chart
 at front of Receiving Tube Section

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 90 max. volts

Heater positive with respect to cathode. 90 max. volts

Typical Operation and Characteristics:

Plate Voltage.	100	125	250	volts
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Grid-No.2 Voltage.	100	125	150	volts
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Cathode-Bias Resistor.	180	100	180	ohms
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Plate Resistance (Approx.)	0.6	0.5	0.8	megohm
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Transconductance	4900	6100	5700	μmhos
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Grid-No.1 Voltage (Approx.)

for plate current of 10 μamp	-5	-6	-8	volts
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Plate Current.	4.7	8	7.5	ma
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Grid-No.2 Current.	1.4	2.4	2.1	ma
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AMPLIFIER - Class A₁

Triode Connection - Grid No.2 Connected to Plate

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. 300 max. volts

GRID-No.1 (CONTROL-GRID) VOLTAGE:

Positive bias value. 0 max. volts

PLATE & GRID-No.2 DISSIPATION (TOTAL). 2.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 90 max. volts

Heater positive with respect to cathode. 90 max. volts

Typical Operation and Characteristics:

Plate Voltage.	180	250	volts
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Cathode-Bias Resistor.	330	820	ohms
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Amplification Factor	42	40	
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Plate Resistance (Approx.)	6000	9000	ohms
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Transconductance	6000	4400	μmhos
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Plate & Grid-No.2 Current (Total).	8	6	ma
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→ Indicates a change.

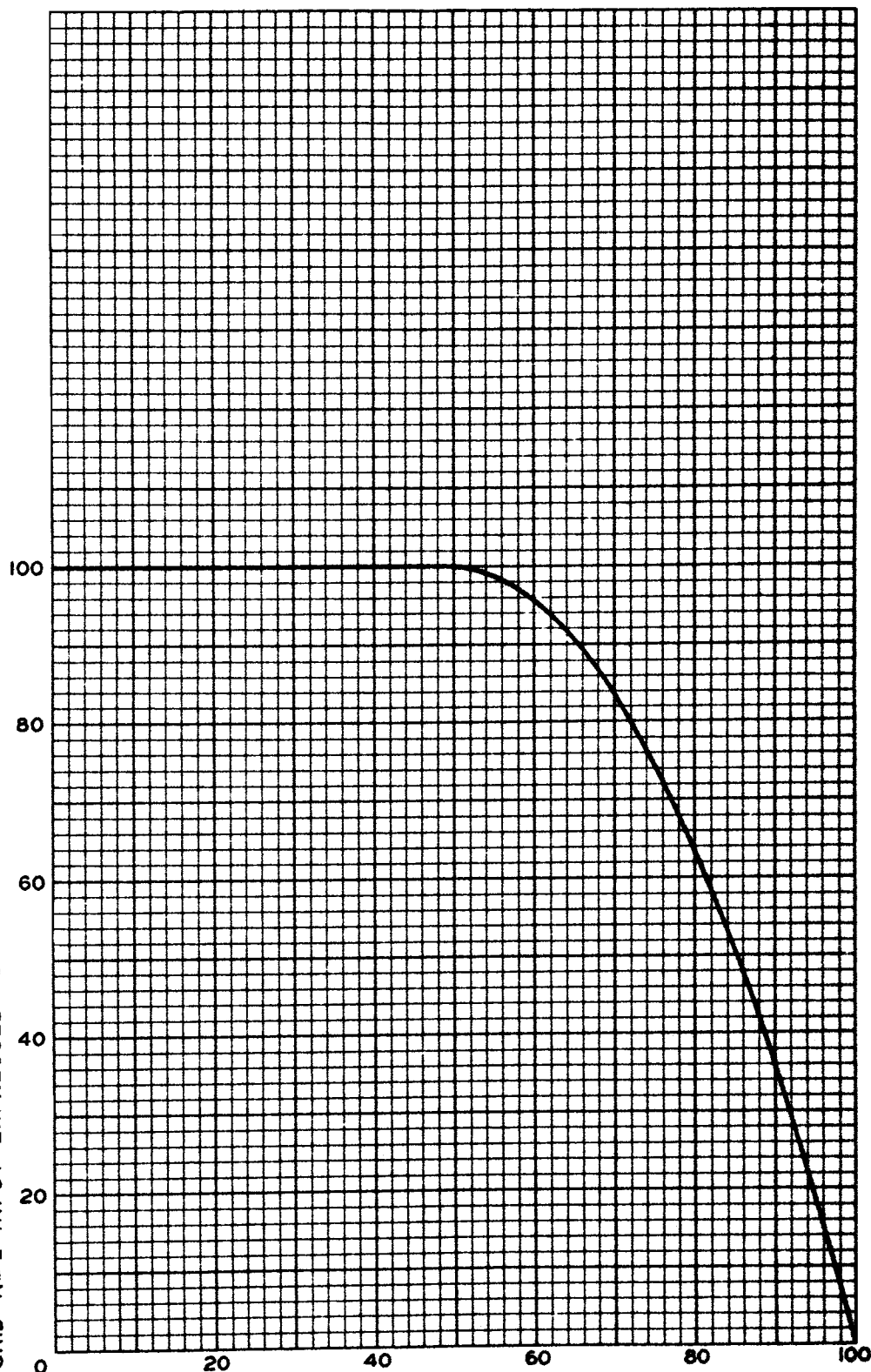


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GRID-Nº 2 INPUT RATING CURVE

GRID-Nº 2 INPUT EXPRESSED AS PER CENT OF MAX. GRID-Nº 2 INPUT RATING



GRID-Nº 2 VOLTAGE EXPRESSED AS PER CENT
OF MAX. GRID-Nº 2 SUPPLY VOLTAGE RATING

AUGUST 17 1950

TUBE DEPARTMENT

92CM-7528

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY