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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:

Without
ShieldWith
Shield^o

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 3.1 μf

Triode Connection, Grid No.2 tied 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 . . . 3.6 3.6 μf Plate and grid No.2 to
cathode & grid No.3 &
internal shield, and
heater 3 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)

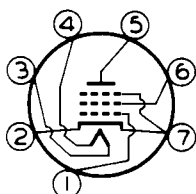
Basing Designation for BOTTOM VIEW 7BD

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 - Cathode,
Grid No.3,
Internal
Shield^o With external shield JETEC No.316 connected to pin No.7.

← Indicates a change.

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SHARP-CUTOFF PENTODE

AMPLIFIER - Class A₁

Pentode Connection

→ 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
Grid-No.2 Voltage.	100	125	150	volts
Cathode-Bias Resistor.	180	100	180	ohms
Plate Resistance (Approx.)	0.6	0.5	0.8	megohm
Transconductance	4500	5100	5000	μmhos
Plate Current.	4.5	7.2	6.5	ma
Grid-No.2 Current.	1.4	2.1	2.0	ma
Grid-No.1 Voltage (Approx.) for plate current = 10 μamp	-5	-6	-8	volts

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 AND 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
→ Cathode-Bias Resistor.	330	820	ohms
→ Plate Resistance (Approx.)	0.008	0.01	megohm
Amplification Factor	45	42	
Transconductance	5700	3800	μmhos
Plate & Grid-No.2 Current (Total).	7	5.5	ma

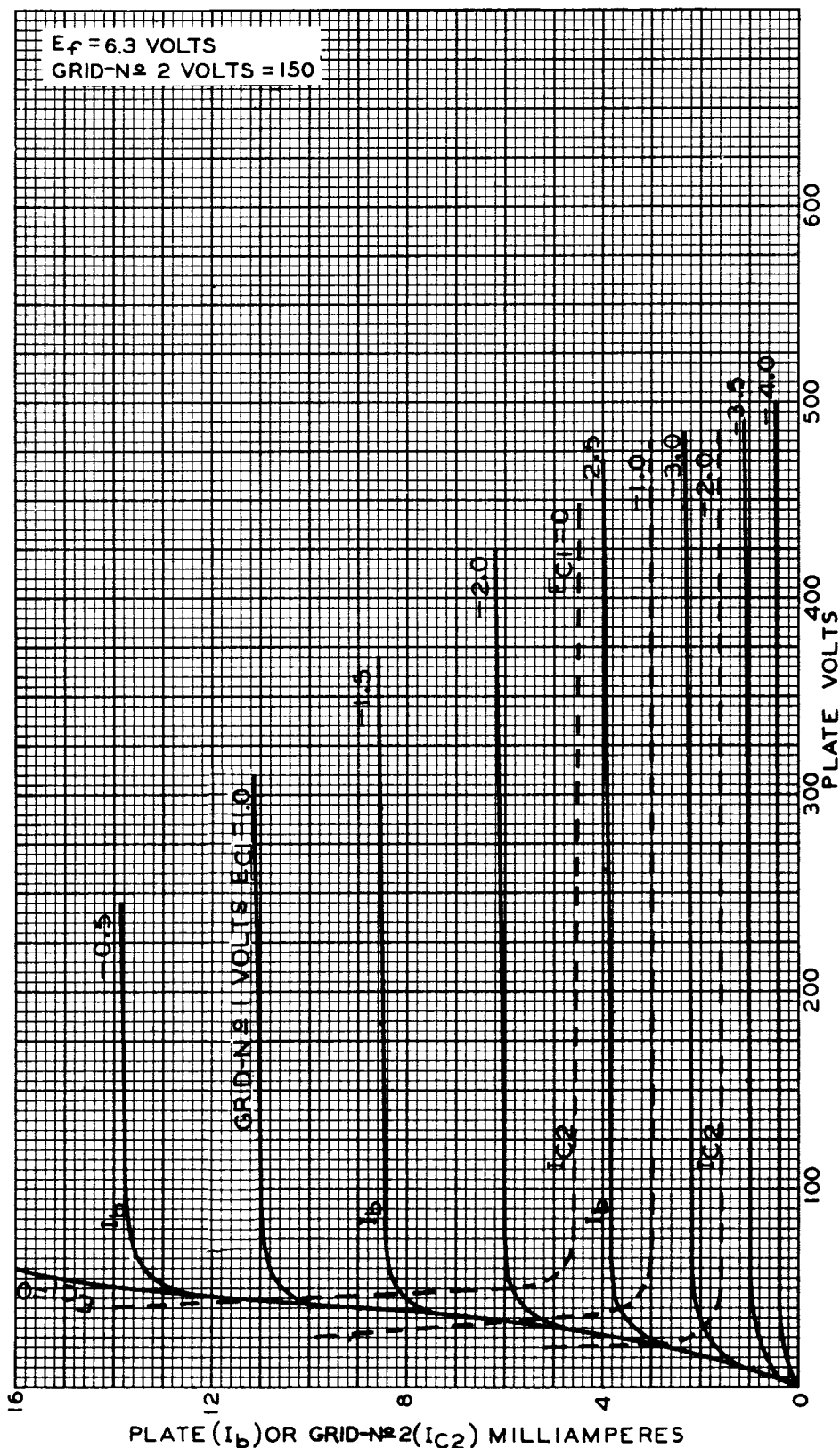
→ indicates a change.



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AVERAGE PLATE CHARACTERISTICS



DEC. 27, 1954

TUBE DIVISION

92CM-6399R2

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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6AG5 AVERAGE PLATE CHARACTERISTICS TRIODE CONNECTION

$E_f = 6.3$ VOLTS
GRID No 2 CONNECTED TO PLATE

