



50B5

BEAM POWER AMPLIFIER

MINIATURE TYPE

50B5

GENERAL DATA**Electrical:**

Heater, for Unipotential Cathode:

Voltage. 50 ac or dc volts

Current. 0.15 amp.

Direct Interelectrode Capacitances (Approx.):^oGrid-No.1 to Plate . . . 0.5 μf Input. 13 μf Output 6.5 μf **Mechanical:**

Mounting Position. Any

Maximum Overall Length 2-5/8"

Maximum Seated Length. 2-3/8"

Length from Base Seat

to Bulb Top (excluding tip). 2" $\pm$ 3/32"

Maximum Diameter 3/4"

Bulb T-5-1/2

Base Miniature Button 7-Pin

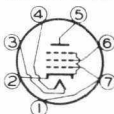
Basing Designation for BOTTOM VIEW 7BZ

Pin 1-Grid No.1

Pin 2-Cathode,

Grid No.3

Pin 3-Heater



Pin 4-Heater

Pin 5-Plate

Pin 6-Grid No.2

Pin 7-Grid No.1

CLASS A₁ AMPLIFIER**Maximum Ratings, Design-Center Values:**

PLATE VOLTAGE. 117 max. volts

GRID-No.2 (SCREEN) VOLTAGE 117 max. volts

PLATE DISSIPATION. 5.5 max. watts

GRID-No.2 DISSIPATION. 1.25 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. 110 . . . volts

Grid-No.2 Voltage. 110 . . . volts

Grid-No.1 Voltage. -7.5 . . . volts

Peak A-F Grid-No.1 Voltage 7.5 . . . volts

Zero-Signal Plate Current. 49 . . . ma.

Max.-Signal Plate Current. 50 . . . ma.

^oWith no external shield.

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Zero-Signal Grid-No.2 Current (Approx.)	4	ma.
Max.-Signal Grid-No.2 Current (Approx.)	8.5	ma.
Plate Resistance (Approx.)	14000	ohms
Transconductance	7500	μmhos
Load Resistance	2500	ohms
Total Harmonic Distortion	9	%
Max.-Sig. Power Output	1.9	watts

Maximum Circuit Values (for maximum rated conditions):

Grid-No.1-Circuit Res.	fixed bias	0.1	megohm
	cathode bias	0.5	megohm

JAN. 2, 1946

RCA VICTOR DIVISION

TENTATIVE DATA

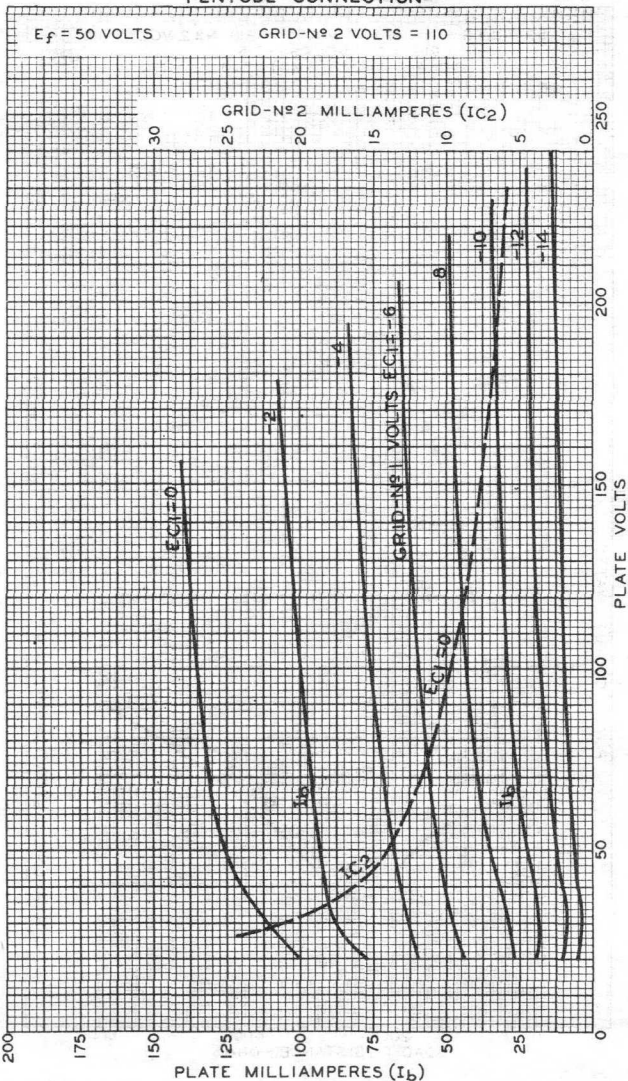
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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AVERAGE PLATE CHARACTERISTICS PENTODE CONNECTION



OCT. 8, 1945

RCA VICTOR DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6603

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OPERATION CHARACTERISTICS
PENTODE CONNECTION