

Beam Power Tube

For Use as a Horizontal-Deflection Amplifier Tube
in Color and Black-and-White Television Receivers

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC) 6.3 $\pm$ 0.6 volts

Current at heater volts = 6.3 2.500 amp

Peak heater-cathode voltage:

Heater negative with
respect to cathode. 200 max. volts

Heater positive with
respect to cathode. 200^a max. volts

Direct Interelectrode Capacitances:^b

Grid No.1 to plate. 0.5 pf

Grid No.1 to cathode & grid No.3,
grid No.2, and heater 23.0 pf

Plate to cathode & grid No.3,
grid No.2, and heater 11.0 pf

Characteristics, Class A₁ Amplifier:

			Triode Con- nec- tion ^c	
Plate Voltage	70	175	125	volts
Grid No.2 (Screen-Grid) Voltage . .	125	125	-	volts
Grid No.1 (Control-Grid) Voltage. .	0	-25	-25	volts
Amplification Factor.	-	-	3.3	
Plate Resistance (Approx.).	-	5500	-	ohms
Transconductance.	-	10500	-	μ hos
Plate Current	550 ^d	110	-	ma
Grid-No.2 Current	42 ^d	5	-	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1	-	-55	-	volts

Mechanical:

Operating Position. Any

Type of Cathode Coated Unipotential

Maximum Overall Length. 5"

Seated Length 4-1/4" $\pm$ 3/16"

Maximum Diameter. 1-9/16"

Bulb. T12

Cap. Small (JEDEC No.C1-1)

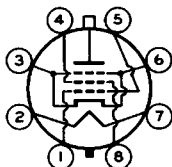
Base. Short Medium-Shell Octal 8-Pin
with External Barriers, Style B (JEDEC No.B8-118)



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Basing Designation for BOTTOM VIEW. 8JC

Pin 1—Grid No.1
Pin 2—Heater
Pin 3—Cathode,
Grid No.3
Pin 4—Grid No.2
Pin 5—Grid No.1



Pin 6—Cathode,
Grid No.3
Pin 7—Heater
Pin 8—Grid No.2
Cap—Plate

HORIZONTAL-DEFLECTION AMPLIFIER

→ Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^e

DC PLATE-SUPPLY VOLTAGE	990 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^f	6500 max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1100 max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE.	190 max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE	250 max.	volts
CATHODE CURRENT:		
Peak.	1100 max.	ma
Average	315 max.	ma
GRID-No.2 INPUT	3.2 max.	watts
PLATE DISSIPATION ^g	24 max.	watts
BULB TEMPERATURE (At hottest point on bulb surface).	220 max.	°C

Maximum Circuit Values:

Grid-No.1—Circuit Resistance:

For grid-resistor-bias operation^g 0.47 max. megohm

^a The dc component must not exceed 100 volts.

^b Without external shield.

^c With grid No.2 connected to plate.

^d These values can be measured by a method involving a recurrent wave form such that the plate dissipation, grid-No.2 input, and cathode current will be kept within ratings in order to prevent damage to the tube.

^e As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

^f This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

^g It is essential that the plate dissipation be limited in the event of loss of grid signal. For this purpose, some protective means such as a cathode resistor of suitable value be employed.

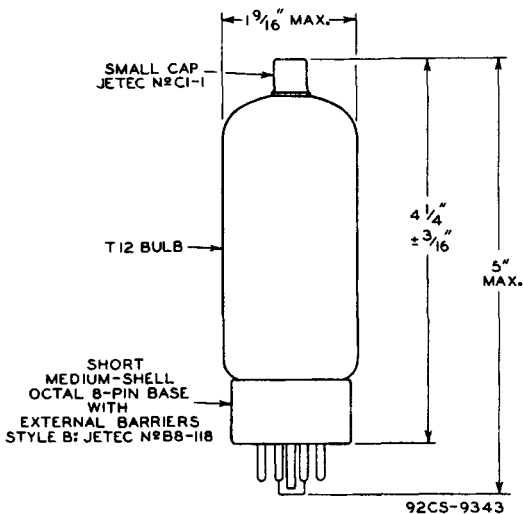
→ Indicates a change.



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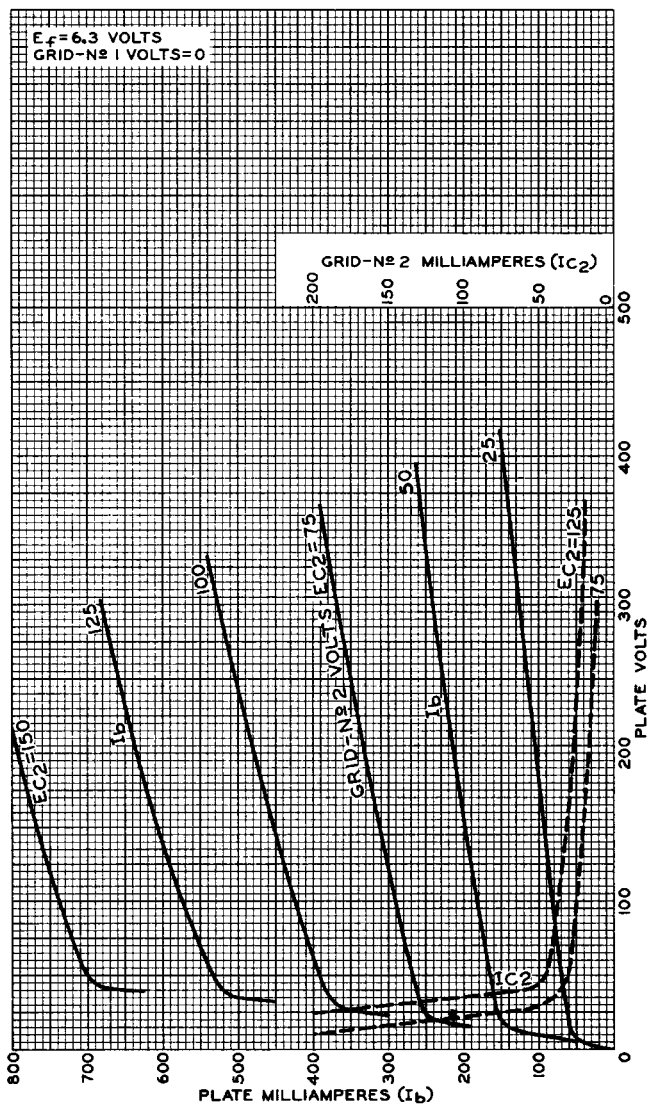


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AVERAGE CHARACTERISTICS



ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

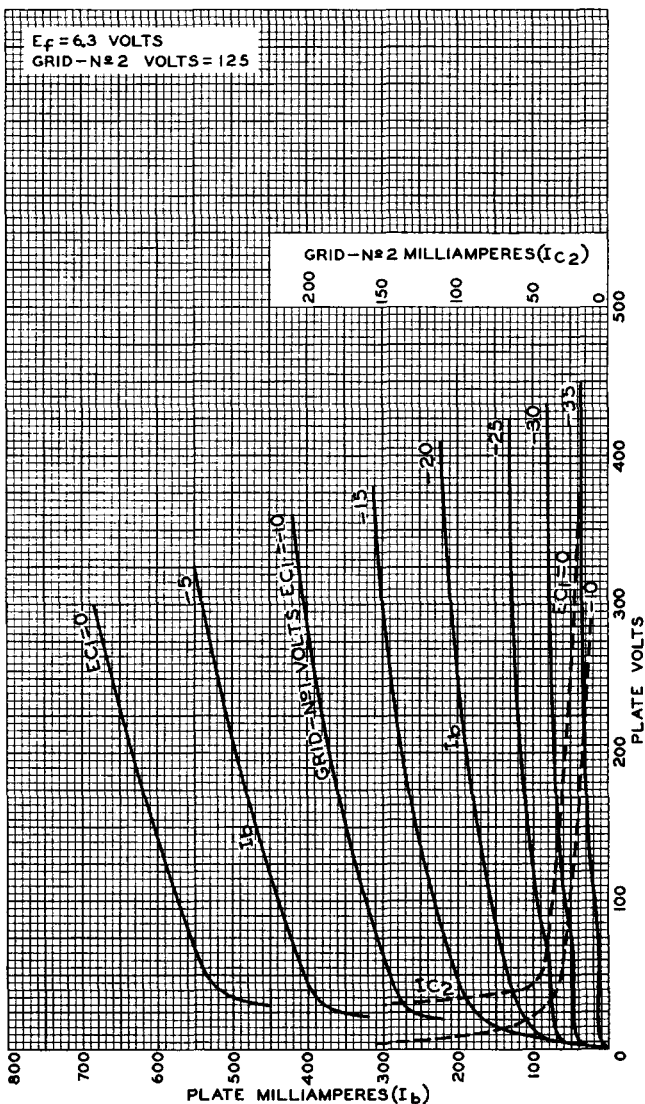
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