

6DQ5

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 ± 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 Connec- 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	-	μmhos
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:

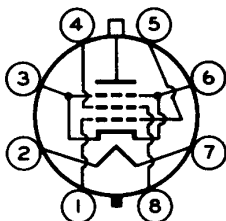
Operating Position.	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length.	5"
Seated Length	4-1/4" ± 3/16"
Maximum Diameter.	1-9/16"
Bulb.	T12
Cap	Small (JEDEC No.C1-1)
Base.	Short Medium-Shell Octal 8-Pin with External Barriers, Style B (JEDEC No.B8-118)



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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.

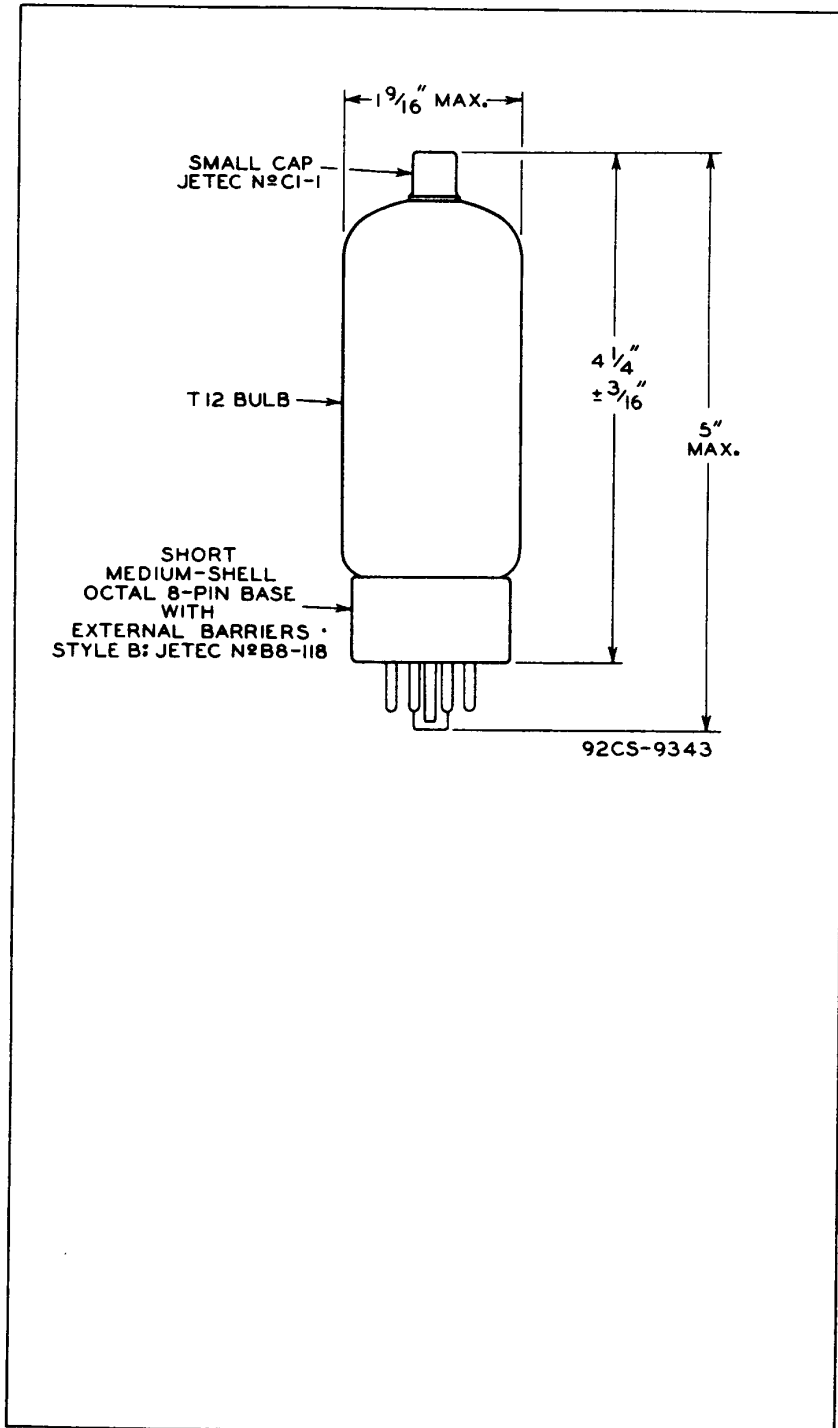




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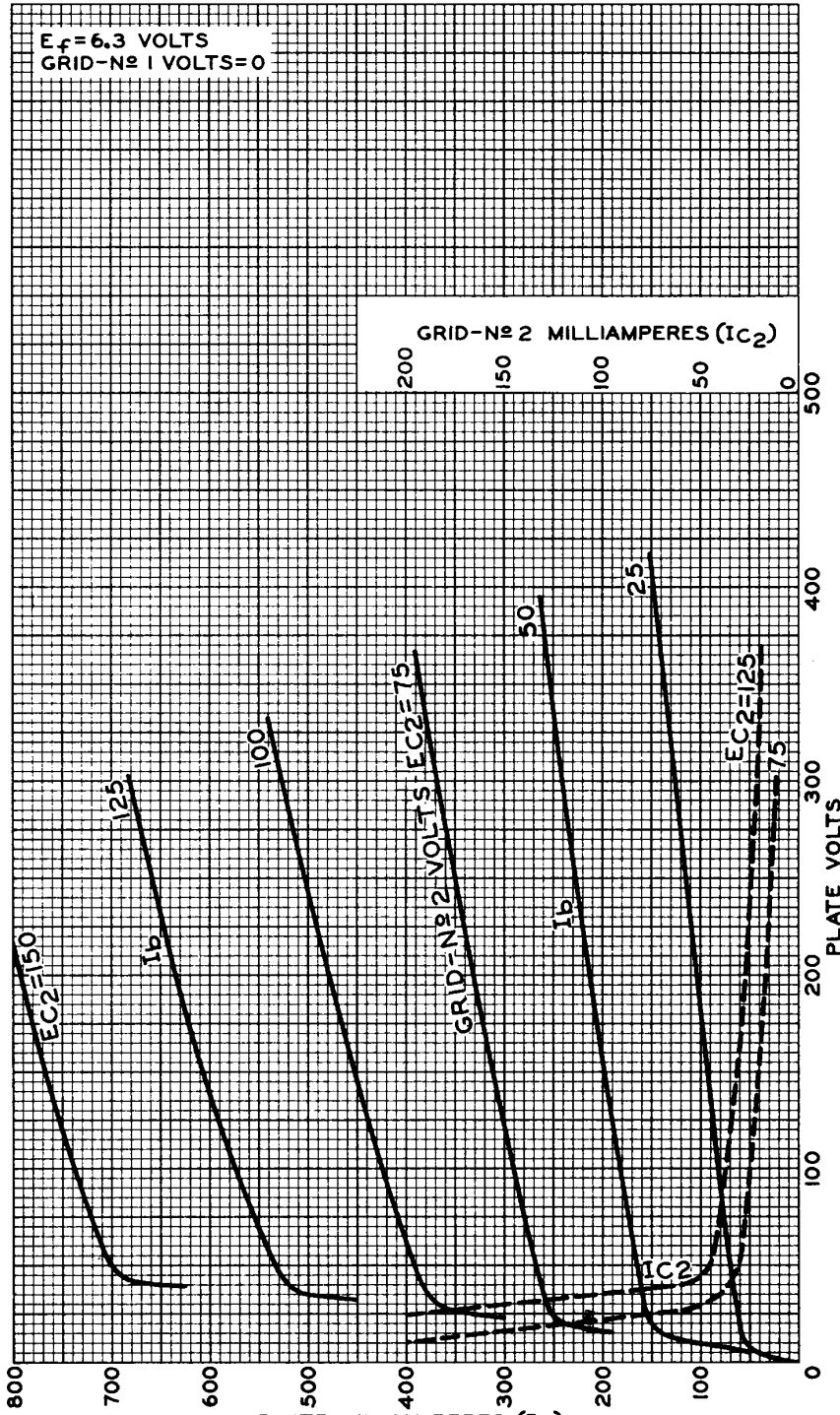


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AVERAGE CHARACTERISTICS



ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

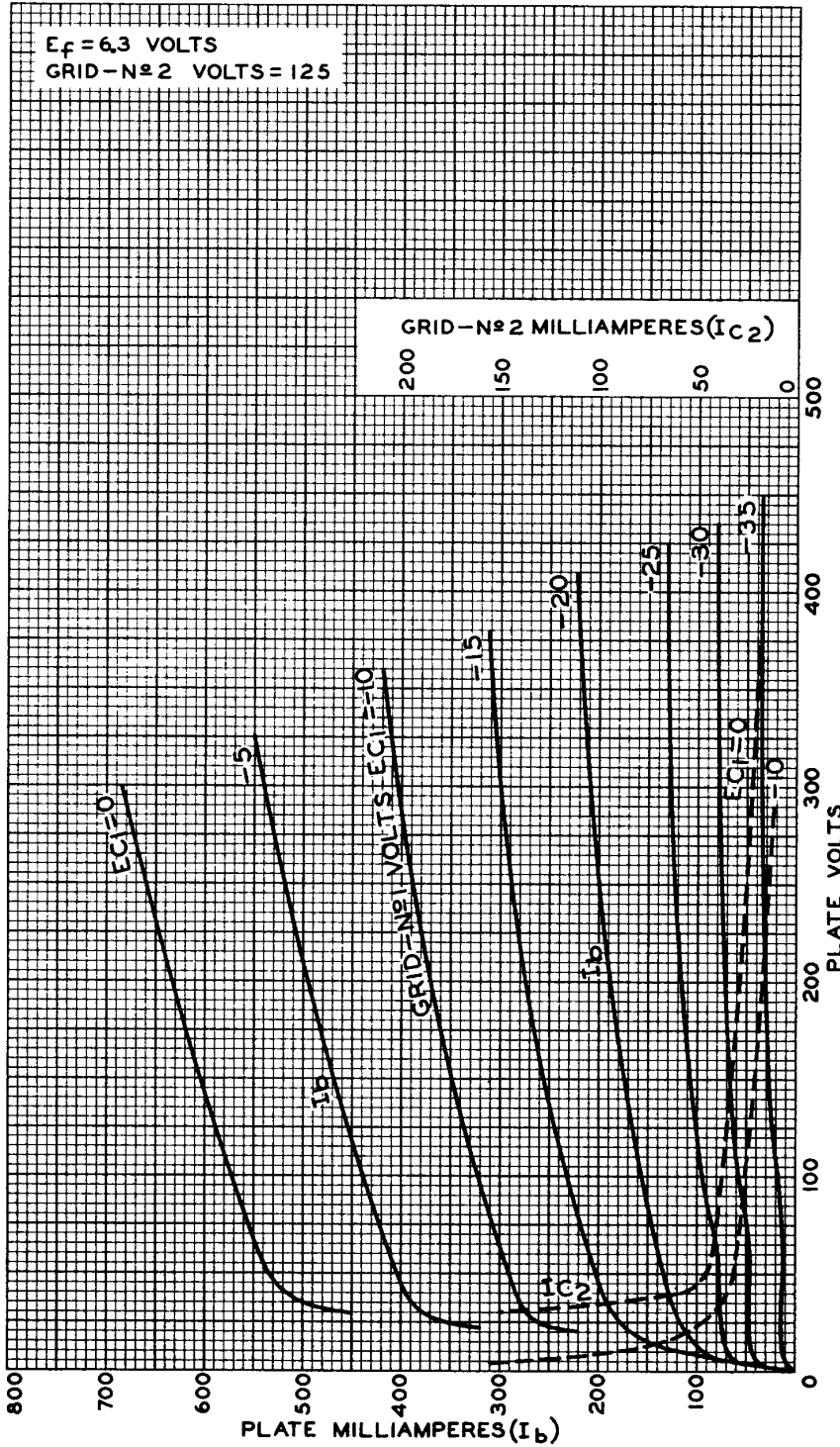
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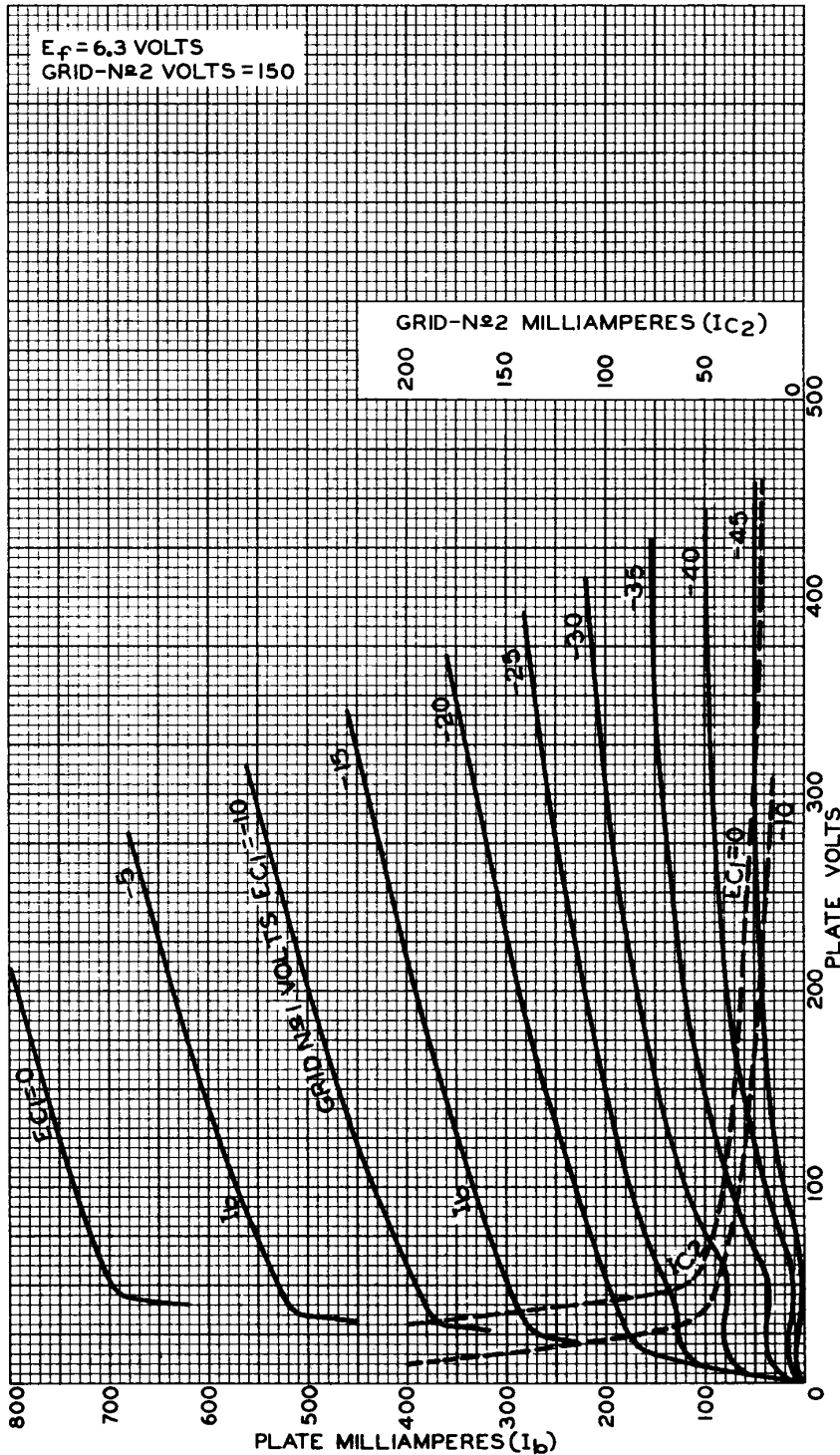
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