

Beam Power Tube

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC)	25	volts
Current	$0.6 \pm 6\%$	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances

(Approx.):^a

Grid No.1 to plate	0.6	$\mu\mu\text{f}$
Grid No.1 to cathode & grid No.3, grid No.2, and heater	24	$\mu\mu\text{f}$
Plate to cathode & grid No.3, grid No.2, and heater	10	$\mu\mu\text{f}$

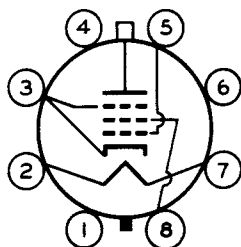
Characteristics, Class A₁ Amplifier:

Plate Voltage	60	135	volts
Grid-No.2 Voltage	135	135	volts
Grid-No.1 Voltage	0	-22.5	volts
Triode Amplification Factor	-	3.8	
Plate Resistance (Approx.)	-	4700	ohms
Transconductance	-	7500	μmhos
Plate Current	350 ^b	70	ma
Grid-No.2 Current	40 ^b	4.5	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1	-	-42	volts

Mechanical:

Operating Position	Any
Maximum Overall Length	4-3/4"
Seated Length	4" $\pm$ 3/16"
Diameter	1.438" to 1.562"
Bulb	T12
Cap	Small (JEDEC No.C1-1)
Base	Short Medium-Shell Octal 8-Pin with External Barriers, Style A (JEDEC Group 1, No.B8-110)
Basing Designation for BOTTOM VIEW	5BT

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



Pin 5—Grid No.1
Pin 6—No Connection
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^c

DC PLATE SUPPLY VOLTAGE	700	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^d	7000	max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1500	max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE. . . .	175	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL-GRID) VOLTAGE.	300	max.	volts
CATHODE CURRENT:			
Peak.	700	max.	ma
Average	200	max.	ma
GRID-No.2 INPUT	4	max.	watts
PLATE DISSIPATION ^e	10	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 ^f	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface).	225	max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For grid-resistor-bias operation. . . . 1.5 max. megohms

^a Without external shield.

^b This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

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

^d 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.

^e An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

^f The dc component must not exceed 100 volts.