



6BG6-G

BEAM POWER TUBE

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GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts
Current 0.9 amp

Direct Interelectrode Capacitances (Approx.):^o

Grid No.1 to plate 0.34 μf
Grid No.1 to cathode & grid No.3,
grid No.2, and heater. 12 μf
Plate to cathode & grid No.3,
grid No.2, and heater. 6.5 μf

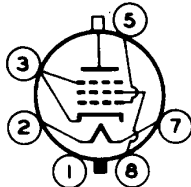
Characteristics, Class A₁ Amplifier:

Plate Voltage 60 250 volts
Grid-No.2 (Screen) Voltage 250 250 volts
Grid-No.1 (Control-Grid) Voltage 0 -15 volts
Mu-Factor, Grid No.2 to Grid No.1. - 8
Plate Resistance (Approx.) - 25000 ohms
Transconductance - 6000 μmhos
Plate Current 180* 75 ma
Grid-No.2 Current 18* 4 ma
Grid-No.1 Voltage (Approx.) for
plate current of 1 ma - -45 volts

Mechanical:

Mounting Position Vertical, base up or down, or
Horizontal with pins 2 and 7 in vertical plane
Maximum Overall Length 5-11/16"
Seated Length 4-31/32" ± 5/32"
Maximum Diameter 2-1/16"
Dimensional Outline See General Section
Bulb ST-16
Cap. Small (JETEC No.C1-1)
Base Medium-Shell Octal 6-Pin (JETEC No.B6-13)
Basing Designation for BOTTOM VIEW. 5BT

Pin 1 - No Con-
tion
Pin 2 - Heater
Pin 3 - Cathode,
Grid No.3



Pin 5 - Grid No.1
Pin 7 - Heater
Pin 8 - Grid No.2
Cap - Plate

^o without external shield.

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

← indicates a change.

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HORIZONTAL DEFLECTION AMPLIFIER

→ **Maximum Ratings, Design-Center Values Except as Noted:**

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

DC PLATE VOLTAGE	700	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE (Absolute maximum) [®]	6600 [■]	max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1500	max.	volts
DC GRID-No.2 (SCREEN) VOLTAGE	350	max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	-50	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE	300	max.	volts
CATHODE CURRENT:			
Peak	400	max.	ma
Average	110	max.	ma
GRID-No.2 INPUT	3.2	max.	watts
PLATE DISSIPATION [†]	20	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200 [▲]	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface).	210	max.	°C

→ **Maximum Circuit Values:**

Grid-No.1-Circuit Resistance:
For grid-resistor-bias operation[†] 0.47 max. megohm

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

[■] Under no circumstances should this absolute value be exceeded.

[®] The duration of the voltage pulse must 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.

[†] 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 should be employed.

[▲] The dc component must not exceed 100 volts.

→ Indicates a change.

SEPT. 1, 1955

DATA