



19BG6-GA

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BEAM POWER TUBE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage. 18.9 ac or dc volts

Current. 0.3 amp

Direct Interelectrode Capacitances (Approx.):⁰

Grid No.1 to plate 0.8 μf

Grid No.1 to cathode & grid No.3,
grid No.2, and heater. 11 μf

Plate to cathode & grid No.3,
grid No.2, and heater. 6 μf

Characteristics, Class A₁ Amplifier:

Plate Voltage 60 250 volts

Grid-No.2 Voltage 250 250 volts

Grid-No.1 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"

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

Maximum Diameter 1-9/16"

Bulb T-12

Cap. Small (JETEC No.C1-1)

Base Short Medium-Shell Octal 8-Pin
with External Barriers, Style A (JETEC No.B8-110),
or Short Medium-Shell Octal 8-Pin

with External Barriers, Style B (JETEC No.B8-118)

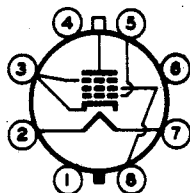
Basing Designation for BOTTOM VIEW5BT

Pin 1 - No Connec-
tion

Pin 2 - Heater

Pin 3 - Cathode,
Grid No.3

Pin 4 - Same as Pin 1



Pin 5 - Grid No.1

Pin 6 - Same as Pin 1

Pin 7 - Heater

Pin 8 - Grid No.2

Cap - Plate

⁰ 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.



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HORIZONTAL DEFLECTION AMPLIFIER

Maximum Ratings, Design-Center Values Except as Noted:

For operation in a 525-line, 30-frame system[□]

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
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

□ 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.

CURVES

for Type 19BG6-GA are the same as those shown for
Type 6BG6-G