

# 6BQ6GTB/6CU6

## Beam Power Tube

### GENERAL DATA

#### Electrical:

Heater, for Unipotential Cathode:

|                              |     |       |
|------------------------------|-----|-------|
| Voltage (AC or DC) . . . . . | 6.3 | volts |
| Current . . . . .            | 1.2 | amp   |

Direct Interelectrode Capacitances (Approx.):<sup>a</sup>

|  |     |                 |
|--|-----|-----------------|
| Grid No.1 to plate . . . . .   | 0.6 | $\mu\text{f}$   |
| Grid No.1 to cathode & grid No.3,<br>grid No.2, and heater . . . . . | 15  | $\mu\text{f}$   |
| Plate to cathode & grid No.3,<br>grid No.2, and heater . . . . .     | 7   | $\mu\text{f}$ ← |

#### Characteristics, Class A<sub>1</sub> Amplifier:

|  |                  |       |       |                  |
|--|------------------|-------|-------|------------------|
| Plate Voltage . . . . .                                    | 60               | 150   | 250   | volts            |
| Grid-No.2 Voltage . . . . .                                | 150              | 150   | 150   | volts            |
| Grid-No.1 Voltage . . . . .                                | 0                | -22.5 | -22.5 | volts            |
| Mu-Factor, Grid No.2 to Grid No.1 . . . . .                | -                | 4.3   | -     |                  |
| Plate Resistance (Approx.) . . . . .                       | -                | -     | 14500 | ohms             |
| Transconductance . . . . .                                 | -                | -     | 5900  | $\mu\text{mhos}$ |
| Plate Current . . . . .                                    | 260 <sup>b</sup> | -     | 57    | ma               |
| Grid-No.2 Current . . . . .                                | 26 <sup>b</sup>  | -     | 2.1   | ma               |
| Grid-No.1 Voltage (Approx.)<br>for plate ma. = 1 . . . . . | -                | -     | -43   | volts            |

#### Mechanical:

|                                  |   |
|----------------------------------|---|
| Operating Position . . . . .     | Any   |
| Maximum Overall Length . . . . . | 3-7/8"  |
| Seated Length . . . . .          | 2-7/8" to 3-5/16"                                 |
| Maximum Diameter . . . . .       | 1-9/32"   |
| Bulb . . . . .                   | T9  |
| Cap . . . . .                    | Skirted Miniature (JEDEC No.C1-2, C1-3, or C1-33) |

Bases (Alternates):

Intermediate-Shell Octal:

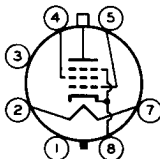
- 7-Pin, Arrangement 1 (JEDEC Group 1, No.B7-7)
- 6-Pin, Arrangement 2 (JEDEC Group 1, No.B6-81)

Short Intermediate-Shell Octal with External Barriers:

- 7-Pin (JEDEC Group 1, No.B7-59)
- 6-Pin, Arrangement 2 (JEDEC Group 1, No.B6-84)
- 5-Pin, Arrangement 3 (JEDEC Group 1, No.B5-187)

Basing Designation for BOTTOM VIEW . . . . . 6AM

- Pin 1<sup>c</sup>-No Connection
- Pin 2-Heater
- Pin 3<sup>c</sup>-No Connection
- Pin 4-Grid No.2



- Pin 5-Grid No.1
- Pin 7-Heater
- Pin 8-Cathode,  
Grid No.3
- Cap-Plate

← Indicates a change.



# 6BQ6GTB/6CU6

## HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Center Values Except as Noted:

For operation in a 525-line, 30-frame system<sup>d</sup>

|  |                   |      |       |
|--|-------------------|------|-------|
| DC PLATE-SUPPLY VOLTAGE . . . . .  | 600               | max. | volts |
| PEAK POSITIVE-PULSE PLATE VOLTAGE<br>(Absolute maximum) <sup>e</sup> . . . . . | 6000 <sup>f</sup> | max. | volts |
| PEAK NEGATIVE-PULSE PLATE VOLTAGE . . . . .                                    | 1250              | max. | volts |
| DC GRID-No.2 (SCREEN-GRID) VOLTAGE. . . . .                                    | 200               | max. | volts |
| PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL-<br>GRID) VOLTAGE . . . . .             | 300               | max. | volts |
| CATHODE CURRENT:   |                   |      |       |
| Peak . . . . .   | 400               | max. | ma    |
| Average . . . . .  | 110               | max. | ma    |
| GRID-No.2 INPUT . . . . .  | 2.5               | max. | watts |
| PLATE DISSIPATION <sup>g</sup> . . . . .                                       | 11                | max. | watts |
| PEAK HEATER-CATHODE VOLTAGE:   |                   |      |       |
| Heater negative with respect to cathode .                                      | 200               | max. | volts |
| Heater positive with respect to cathode .                                      | 200 <sup>h</sup>  | max. | volts |
| BULB TEMPERATURE (At hottest<br>point on bulb surface). . . . .                | 220               | max. | °C    |

### → Maximum Circuit Values:

|                                       |      |      |        |
|---------------------------------------|------|------|--------|
| Grid-No.1-Circuit Resistance. . . . . | 0.47 | max. | megohm |
|---------------------------------------|------|------|--------|

<sup>a</sup> Without external shield.

<sup>b</sup> 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.

<sup>c</sup> On the 6-pin bases, pin 1 as well as pin 6 is omitted. On the 5-pin base, pins 1 and 3 as well as pin 6 are omitted.

<sup>d</sup> As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

<sup>e</sup> 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.

<sup>f</sup> Under no circumstances should this absolute value be exceeded.

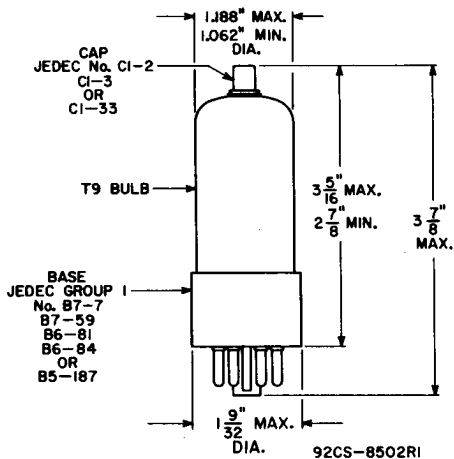
<sup>g</sup> An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

<sup>h</sup> The dc component must not exceed 100 volts.

→ Indicates a change.

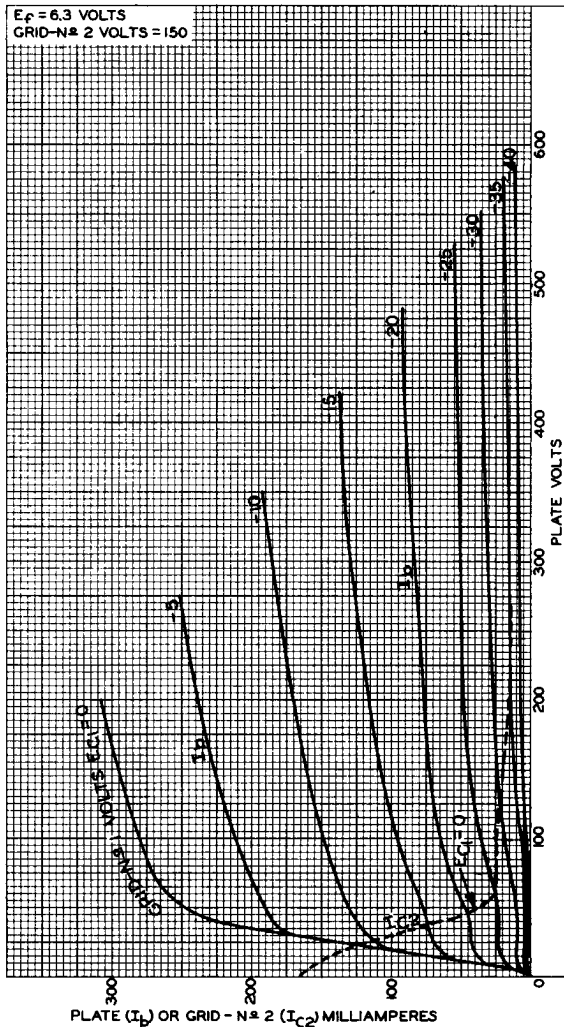


# 6BQ6GTB/6CU6



# 6BQ6GTB/6CU6

## AVERAGE CHARACTERISTICS



92CM - 850IRI

RADIO CORPORATION OF AMERICA  
Electron Tube Division

Harrison, N. J.

