



6DN6

## BEAM POWER TUBE

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## GENERAL DATA

## Electrical:

Heater, for Unipotential Cathode:

|                              |     |       |
|------------------------------|-----|-------|
| Voltage (AC or DC) . . . . . | 6.3 | volts |
| Current . . . . .            | 2.5 | amp   |

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

|                                                                      |      |                |
|----------------------------------------------------------------------|------|----------------|
| Grid No.1 to plate. . . . .                                          | 0.8  | $\mu\text{mf}$ |
| Grid No.1 to cathode & grid No.3,<br>grid No.2, and heater . . . . . | 22   | $\mu\text{mf}$ |
| Plate to cathode & grid No.3, grid<br>No.2, and heater. . . . .      | 11.5 | $\mu\text{mf}$ |

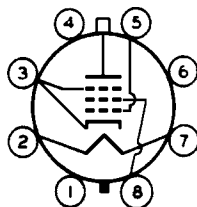
Characteristics, Class A<sub>1</sub> Amplifier:

|                                                              |      |      |                  |
|--------------------------------------------------------------|------|------|------------------|
| Plate Voltage . . . . .                                      | 50   | 125  | volts            |
| Grid-No.2 Voltage . . . . .                                  | 100  | 125  | volts            |
| Grid-No.1 Voltage . . . . .                                  | 0    | -18  | volts            |
| Plate Resistance (Approx.) . . . . .                         | -    | 4000 | ohms             |
| Transconductance. . . . .                                    | -    | 9000 | $\mu\text{mhos}$ |
| Plate Current . . . . .                                      | 240* | 70   | ma               |
| Grid-No.2 Current . . . . .                                  | 30*  | 6.3  | ma               |
| Grid-No.1 Voltage (Approx.) for<br>plate ma. = 0.5 . . . . . | -    | -36  | volts            |

## Mechanical:

|                                             |                                                                                              |
|---------------------------------------------|----------------------------------------------------------------------------------------------|
| Operating Position. . . . .                 | Vertical, or<br>Horizontal with pins 1 and 3 in vertical plane                               |
| Maximum Overall Length. . . . .             | 5"                                                                                           |
| Seated Length . . . . .                     | 4-1/4" $\pm$ 3/16"                                                                           |
| Diameter. . . . .                           | 1.438" to 1.562"                                                                             |
| Bulb. . . . .                               | T12                                                                                          |
| Cap. . . . .                                | Small (JEDEC No.C1-1)                                                                        |
| Base. . . . .                               | Short Medium-Shell Octal 8-Pin<br>with External Barriers, Style B (JEDEC Group 1, No.B8-118) |
| Basing Designation for BOTTOM VIEW. . . . . | 5BT                                                                                          |

Pin 1 - No Con-  
nection  
Pin 2 - Heater  
Pin 3 - Cathode,  
Grid No.3  
Pin 4 - No Con-  
nection



Pin 5 - Grid No.1  
Pin 6 - No Con-  
nection  
Pin 7 - Heater  
Pin 8 - Grid No.2  
Cap - Plate

## HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Center Values Except as Noted:

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

|                                                                                |                   |      |       |
|--------------------------------------------------------------------------------|-------------------|------|-------|
| DC PLATE VOLTAGE. . . . .                                                      | 700               | max. | volts |
| PEAK POSITIVE-PULSE PLATE VOLTAGE<br>(Absolute maximum) <sup>®</sup> . . . . . | 6600 <sup>■</sup> | max. | volts |
| PEAK NEGATIVE-PULSE PLATE VOLTAGE . . . . .                                    | 1500              | max. | volts |



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|                                                                    |     |      |       |
|--------------------------------------------------------------------|-----|------|-------|
| DC GRID-No.2 (SCREEN-GRID) VOLTAGE. . . . .                        | 175 | max. | volts |
| PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL-<br>GRID) VOLTAGE . . . . . | 200 | max. | volts |
| CATHODE CURRENT:                                                   |     |      |       |
| Peak. . . . .                                                      | 700 | max. | ma    |
| Average . . . . .                                                  | 200 | max. | ma    |
| GRID-No.2 INPUT . . . . .                                          | 3   | max. | watts |
| PLATE DISSIPATION†. . . . .                                        | 15  | 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<br>bulb surface) . . . . .   | 225 | max. | °C    |

**Maximum Circuit Values:**

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

○ Without external shield.

\* 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.

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

⊙ This rating is applicable when 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.

■ Under no circumstances should this absolute value be exceeded.

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

▲ The dc component must not exceed 100 volts.



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