

# 12GC6

## Beam Power Tube

With Heater Having Controlled Warm-Up Time

### GENERAL DATA

#### Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) . . . . .	12.6	volts
Current . . . . .	0.6 ± 6%	amp
Warm-up time (Average) . . . . .	11	sec

Direct Interelectrode Capacitances:<sup>a</sup>

Grid No.1 to plate . . . . .	0.55	μf
Grid No.1 to cathode, grid No.3, grid No.2, and heater . . . . .	15	μf
Plate to cathode, grid No.3, grid No.2, and heater . . . . .	7	μf

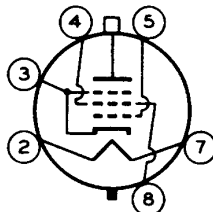
#### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Voltage . . . . .	60	250	volts
Grid-No.2 Voltage . . . . .	150	150	volts
Grid-No.1 Voltage . . . . .	0	-22.5	volts
Triode Amplification Factor for plate volts = grid-No.2 volts = 150 . . . . .	-	4.1	
Plate Resistance (Approx.) . . . . .	-	20000	ohms
Transconductance . . . . .	-	6600	μmhos
Plate Current . . . . .	345 <sup>b</sup>	75	ma
Grid-No.2 Current . . . . .	30 <sup>b</sup>	2.4	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1 . . . . .	-	-46	volts
Grid-No.1 Voltage (Approx.) for peak positive-pulse plate volts = 5000, grid- No.2 volts = 150, and plate ma. = 1 . . . . .	-	-100	volts

#### Mechanical:

Operating Position . . . . .	Any
Maximum Overall Length . . . . .	4-1/4"
Seated Length . . . . .	3-1/2" ± 3/16"
Maximum Diameter . . . . .	1-9/16"
Bulb . . . . .	T12
Cap . . . . .	Skirted Miniature (JEDEC No.C1-3)
Base . . . . .	Short Medium-Shell Octal 6-Pin with External Barriers, Arrangement 2, Style B, (JEDEC Group 1, No.B6-122)
Basing Designation for BOTTOM VIEW . . . . .	8JX

Pin 2 - Heater  
Pin 3 - Cathode,  
Grid No.3  
Pin 4 - Grid No.2



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



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## HORIZONTAL-DEFLECTION AMPLIFIER

### Maximum Ratings, Design-Maximum Values:

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

DC PLATE VOLTAGE . . . . .	770	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE <sup>d</sup> . . . . .	6500	max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE . . . . .	1500	max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE . . . . .	220	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE . . . . .	330	max.	volts
CATHODE CURRENT:			
Peak . . . . .	550	max.	ma
Average . . . . .	175	max.	ma
GRID-No.2 INPUT . . . . .	4.5	max.	watts
PLATE DISSIPATION <sup>e</sup> . . . . .	17.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode . . . . .	200	max.	volts
Heater positive with respect to cathode . . . . .	200 <sup>f</sup>	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface) . . . . .	220	max.	°C

### Maximum Circuit Values:

Grid-No.1-Circuit Resistance . . . . .	1	max.	megohm
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<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> As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

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

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

