

# 6JG6

## Beam Power Tube

### NOVAR TYPE

For Horizontal-Deflection-Amplifier Service  
in Low-B+ Black-and-White TV Receivers

#### Electrical:

##### Heater Characteristics and Ratings:

Voltage (AC or DC) . . . . .	6.3 ± 0.6	volts
Current at heater volts = 6.3 . . . . .	1.600	amp
Peak heater-cathode voltage:		
Heater negative with respect to cathode . . . . .	200 max.	volts
Heater positive with respect to cathode . . . . .	200 <sup>a</sup> max.	volts

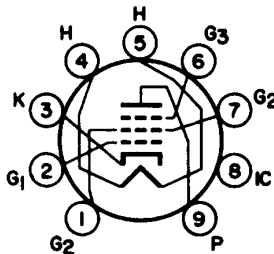
##### Direct Interelectrode Capacitances (Approx.)<sup>b</sup>

G1 to P . . . . .	0.7	pf
Input: G1 to (K,G3,G2,H) . . . . .	22.0	pf
Output: P to (K,G3,G2,H) . . . . .	9.0	pf

#### Mechanical:

Operating Position . . . . .	Any
Type of Cathode . . . . .	Coated Unipotential
Maximum Overall Length . . . . .	3.410"
Maximum Seated Length . . . . .	3.030"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	2.510" to 2.690"
Diameter . . . . .	1.438" to 1.562"
Bulb . . . . .	T12
Socket . . . . .	Cinch Mfg. Co. No.149 19 00 033, Industrial Electronic Hardware Corp. No.S0-0968-SL1, or equivalent
Base . . . . .	Large-Button Novar 9-Pin (JEDEC No.E9-76)
Basing Designation for BOTTOM VIEW . . . . .	9QU

- Pin 1 - Grid No.2
- Pin 2 - Grid No.1
- Pin 3 - Cathode
- Pin 4 - Heater
- Pin 5 - Heater



- Pin 6 - Grid No.3
- Pin 7 - Grid No.2
- Pin 8 - Do Not Use
- Pin 9 - Plate

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

	Triode Connection <sup>c</sup>	Pentode Connection	
Plate Voltage . . . . .	125	50	130 volts
Grid No.3 . . . . .	Connected to cathode at socket		
Grid-No.2 Voltage . . . . .	-	125	125 volts
Grid-No.1 Voltage . . . . .	-20	0	-20 volts
Amplification Factor . . . . .	4.1	-	-
Plate Resistance (Approx.) . . . . .	-	-	12000 ohms
Transconductance . . . . .	-	-	10000 μmhos



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	Triode Connection <sup>c</sup>	Pentode Connection		
Plate Current . . . . .	-	525 <sup>d</sup>	80	ma
Grid-No.2 Current . . . . .	-	32 <sup>d</sup>	2.5	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1. . . . .	-	-	-40	volts

## HORIZONTAL-DEFLECTION AMPLIFIER

### Maximum Ratings, Design-Maximum Values:

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

DC Plate Supply Voltage . . . . .	770 max.	volts
Peak Positive-Pulse Plate Voltage <sup>f</sup> . . . . .	6500 max.	volts
Peak Negative-Pulse Plate Voltage . . . . .	1500 max.	volts
DC Grid-No.3 (Suppressor-Grid) Voltage (See <i>Operating Considerations</i> ) . . . . .	75 max.	volts
DC Grid-No.2 (Screen-Grid) Voltage . . . . .	220 max.	volts
DC Grid-No.1 (Control-Grid) Voltage: Negative-bias value . . . . .	55 max.	volts
Peak Negative-Pulse Grid-No.1 Voltage . . . . .	330 max.	volts
Cathode Current: Peak . . . . .	950 max.	ma
Average . . . . .	275 max.	ma
Grid-No.2 Input . . . . .	3.5 max.	watts
Plate Dissipation <sup>g</sup> . . . . .	17 max.	watts
Bulb Temperature (At hottest point on bulb surface) . . . . .	220 max.	°C

### Maximum Circuit Values:

Grid-No.1-Circuit Resistance: For grid-No.1-resistor-bias operation . . . . .	2.2 max.	megohms
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<sup>a</sup> The dc component must not exceed 100 volts.

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

<sup>c</sup> With grid No.2 connected to plate at socket.

<sup>d</sup> This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

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

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

## OPERATING CONSIDERATIONS

In *Horizontal-Deflection-Amplifier Service*, a positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in both vhf and uhf television receivers. A typical value for this voltage is 30 volts.

## DIMENSIONAL OUTLINE AND CURVES

shown under Type 22JG6 also apply to the 6JG6

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