

# 6HJ5

## Beam Power Tube

### DUODECAR TYPE

#### Electrical:

Heater Ratings and Characteristics:

Voltage (AC or DC) . . . . .  $6.3 \pm 0.6$  volts  
 Current at heater volts = 6.3 . . . . . 2.250 amp

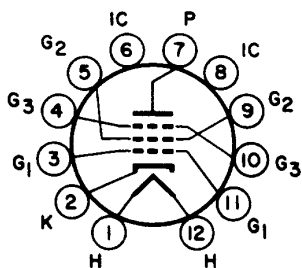
Peak heater-cathode voltage:

Heater negative with respect to cathode . . . . . 200 max. volts  
 Heater positive with respect to cathode . . . . . 200<sup>a</sup> max. volts

#### Mechanical:

Operating Position . . . . . Any  
 Type of Cathode . . . . . Coated Unipotential  
 Maximum Overall Length . . . . . 3.625"  
 Seated Length . . . . . 3.000" to 3.250"  
 Diameter . . . . . 1.437" to 1.563"  
 Dimensional Outline . . . . . See *General Section*  
 Bulb . . . . . T12  
 Base . . . . . Large-Button Duodecar 12-Pin (JEDEC No. E12-74)  
 Basing Designation for BOTTOM VIEW . . . . . 12FL

Pin 1 - Heater  
 Pin 2 - Cathode  
 Pin 3 - Grid No.1  
 Pin 4 - Grid No.3  
 Pin 5 - Grid No.2  
 Pin 6 - Do Not Use



Pin 7 - Plate  
 Pin 8 - Do Not Use  
 Pin 9 - Grid No.2  
 Pin 10 - Grid No.3  
 Pin 11 - Grid No.1  
 Pin 12 - Heater

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

			Triode Connec- tion <sup>b</sup>		
Plate Voltage . . . . .	40	60	135	135	volts
Grid-No.3 Voltage . . . . .	Connected to cathode at socket		0	-	volts
Grid-No.2 Voltage . . . . .	110	135	135	135	volts
Grid-No.1 Voltage . . . . .	0	0	-22	-22	volts
Amplification Factor . . . . .	-	-	-	4.2	
Plate Resistance (Approx.) . . . . .	-	-	5000	-	ohms
Transconductance . . . . .	-	-	10000	-	μmhos
Plate Current . . . . .	400 <sup>c</sup>	540 <sup>c</sup>	80	-	ma
Grid-No.2 Current . . . . .	42 <sup>c</sup>	40 <sup>c</sup>	5.5	-	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1, grid-No.2 volts = 135, plate volts = 4500 . . . . .	-	-	-70	-	volts



RADIO CORPORATION OF AMERICA  
 Electronic Components and Devices  
 Harrison, N. J.

DATA  
 4-64

# 6HJ5

## HORIZONTAL-DEFLECTION AMPLIFIER

### Maximum Ratings, Design-Maximum Values:

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

DC Plate Supply Voltage. . . . .	770 max.	volts
Peak Positive-Pulse Plate Voltage <sup>e</sup> . . . . .	7000 max.	volts
Peak Negative-Pulse Plate Voltage. . . . .	1500 max.	volts
DC Grid-No.3 (Suppressor-Grid) Voltage <sup>f</sup> . . . . .	70 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 . . . . .	1000 max.	ma
Average. . . . .	280 max.	ma
Grid-No.2 Input. . . . .	6 max.	watts
Grid-No.2 Input (warm-up surge) <sup>g</sup> . . . . .	12 max.	watts
Plate Dissipation <sup>h</sup> . . . . .	24 max.	watts
Bulb Temperature (At hottest point on bulb surface) . . . . .	240 max.	°C

### Maximum Circuit Values:

Grid-No.1 Circuit Resistance:

  For grid-resistor-bias operation . . . . . 1 max. megohm

- <sup>a</sup> The dc component must not exceed 100 volts.
- <sup>b</sup> With grid No.2 connected to plate at socket.
- <sup>c</sup> Instantaneous values.
- <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> A positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in television receivers. A typical value for this voltage is 30 volts.
- <sup>g</sup> Surge not to exceed 15 second duration.
- <sup>h</sup> An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

