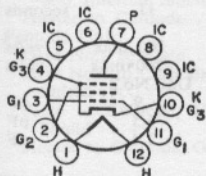


of excitation.



12BJ

BEAM POWER TUBE

Duodecar type used as horizontal-deflection amplifier in television receivers. Outline 8D, **Outlines** section. Tube requires duodecar twelve-contact socket and may be mounted in any position. Heater volts (ac/dc),

6.3; amperes, 1.2; peak heater-cathode volts, 200 (the dc component must not exceed 100 volts when the heater is positive with respect to the cathode).

6GF5

Class A₁ Amplifier

CHARACTERISTICS:

Plate Voltage	60	250	volts
Grid-No.2 (Screen-Grid) Voltage	150	150	volts
Grid-No.1 (Control-Grid) Voltage	0	-26.5	volts
Triode Amplification Factor*	—	4.2	
Plate Resistance (Approx.)	—	0.26	megohm
Transconductance	—	4700	μmhos
Plate Current	345*	34	mA
Grid-No.2 Current	33*	1.6	mA
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	-46	volts

* Triode connection (grid No.2 connected to plate); plate and grid-No.2 volts = 150.

* These values can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

Horizontal-Deflection Amplifier

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values):

DC Plate Supply Voltage	770 max	volts
Peak Positive-Pulse Plate Voltage#	5000 max	volts

Peak Negative-Pulse Plate Voltage	-1500 max	volts
DC Grid-No.2 Voltage	220 max	volts
Peak Negative-Pulse Grid-No.1 Voltage	-330 max	volts
Negative DC Grid-No.1 Voltage	-55 max	volts
Peak Cathode Current	500 max	mA
Average Cathode Current	160 max	mA
Plate Dissipation†	9 max	watts
Grid-No.2 Input	2.5 max	watts
Bulb Temperature (At hottest point)	200 max	°C

MAXIMUM CIRCUIT VALUES:

Grid-No.1-Circuit Resistance	1 max megohm
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The duration of the voltage pulse must 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.

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