

NOTE:

- (1) These are design maximum dissipation ratings for television video amplifier applications. The two watts maximum Grid No. 2 Dissipation should not occur simultaneously with the five watts maximum plate dissipation. The two watts maximum Grid No. 2 Dissipation may be operated simultaneously with a Plate Dissipation of 4.0 Watts or 1.5 Watts Maximum Grid No. 2 Dissipation may be operated simultaneously with a Plate Dissipation of 5.0 Watts.

**HORIZONTAL DEFLECTION
AMPLIFIER**

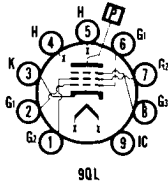
6JF6

22JF6

Beam Power Pentode

Construction Novar T-12
Base Button 9 Pin, E9-88
Top Cap C1-2 or C1-3
Basing 9QL
Outline

Maximum Diameter 1.563 In.
Maximum Seated Height 3.170 In.
Maximum Overall Height 3.550 In.



ELECTRICAL DATA

HEATER OPERATION

	22JF6	6JF6
Heater Voltage.....	22	6.3 Volts
Heater Current.....	450	1600 Ma
Heater Warm-up Time.....	11	— Seconds
Maximum Heater-Cathode Voltage		
Heater Negative with Respect to Cathode		
Total DC and Peak.....		200 Volts
Heater Positive with Respect to Cathode		
DC.....		100 Volts
Total DC and Peak.....		200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate.....	1.2 Pf
Input: g1 to (k, g3, g2, H).....	22.0 Pf
Output: p to (k, g3, g2, H).....	9.0 Pf

RATINGS (Design Maximum Rating System)

Horizontal Deflection Amplifier⁽¹⁾

DC Plate Supply Voltage (Boost + DC Power Supply) (Max.).....	770 Volts
Peak Positive Pulse Plate Voltage (Max.).....	6500 Volts
Peak Negative Pulse Plate Voltage (Max.).....	1500 Volts
Grid No. 3 Voltage (Max.).....	75 Volts
Plate Dissipation (Max.) ⁽²⁾	100 Watts
Peak Negative Grid No. 1 Voltage (Max.).....	330 Volts
Grid No. 2 Voltage (Max.).....	220 Volts
Grid No. 2 Dissipation (Max.).....	3.5 Watts
Average Cathode Current (Max.).....	275 Ma
Peak Cathode Current (Max.).....	950 Ma
Grid No. 1 Circuit Resistance (Max.).....	2.2 Megohms
Bulb Temperature (At Hottest Point) (Max.).....	240 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage.....	130 Volts
Grid No. 2 Voltage.....	125 Volts
Grid No. 1 Voltage.....	-20 Volts
Plate Current.....	80 Ma
Grid No. 2 Current.....	2.5 Ma
Transconductance.....	10,000 μ mhos
Plate Resistance.....	12,000 Ohms
Amplification Factor ⁽³⁾	4.1
Ec1 for Ib = 1.0 Ma (Approx.).....	-40 Volts

INSTANTANEOUS PLATE KNEE VALUES

Eb = 50 V; Ec2 = 125 V and Ec1 = 0 V
Ib = 525 Ma, and Ic2 = 32 Ma

NOTES:

- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.
- (3) Amplification factor with tube operating as a triode with 125 volts on the plate and Grid No. 2 and -20 volts on Grid No. 1.

6JG6A**17JG6A, 22JG6A****HORIZONTAL DEFLECTION AMPLIFIER****Beam Power Pentode**

Construction	Novar T-12
Base	Button 9 Pin, E9-88
Basing	9QU
Outline	12-96
Maximum Diameter	1.563 In.
Maximum Seated Height	2.750 In.
Maximum Overall Height	3.125 In.

ELECTRICAL DATA**HEATER OPERATION**

Heater Voltage	
Heater Current	
Heater Warm-up Time	

Maximum Heater-Cathode Voltage

Heater Negative with Respect to Cathode

Total DC and Peak

Heater Positive with Respect to Cathode

DC

Total DC and Peak

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate	
Input	
Output	

RATINGS (Design Maximum Rating System)**Horizontal Deflection Amplifier⁽¹⁾**

DC Plate Supply Voltage (Boost + DC Power Supply) (Max.)	770 Volts
Peak Positive Pulse Plate Voltage (Max.)	6500 Volts
Peak Negative Pulse Plate Voltage (Max.)	1500 Volts
Grid No. 3 Voltage (Max.)	75 Volts
Plate Dissipation (Max.)	17 Watts
Peak Negative Grid No. 1 Voltage (Max.)	330 Volts
Grid No. 2 Voltage (Max.)	220 Volts
Grid No. 2 Dissipation (Max.)	3.5 Watts
Average Cathode Current (Max.)	275 Ma
Peak Cathode Current (Max.)	950 Ma
Grid No. 1 Circuit Resistance (Max.)	2.2 Megohms
Bulb Temperature (At Hottest Point) (Max.)	220 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	130 Volts
Grid No. 2 Voltage	125 Volts
Grid No. 1 Voltage ⁽²⁾	-20 Volts
Plate Current	80 Ma
Grid No. 2 Current	2.5 Ma
Transconductance	10,000 μ mhos
Plate Resistance	12,000 Ohms
Amplification Factor ⁽³⁾	4.1
Ecl for Ib = 10 Ma (Approx.)	-40 Volts

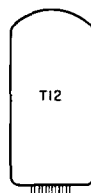
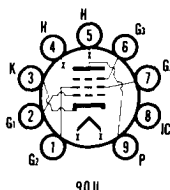
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- (3) Amplification factor with tube operating as a triode with 125 volts on the plate and Grid No. 2 and -20 volts on Grid No. 1.

**22JG6A**

22

450

11

17JG6A

16.8

600

11

6JG6A

6.3 Volts

1600 Ma

— Seconds

200 Volts

100 Volts

200 Volts

0.7 Pf

22 Pf

9.0 Pf