

Cathode-Bias Resistor	—	—	82	ohms
Amplification Factor	70	—	—	—
Plate Resistance (Approx.)	—	—	0.14	megohm
Transconductance	4200	—	12000	μ mhos
Plate Current	4.5	48*	22	mA
Grid-No.2 Current	—	12*	4	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—5	—	—10	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.5	0.25	megohm
For cathode-bias operation	1	1	megohm

* Grid-No.2 input may reach 2 watts for plate-dissipation values of 4 watts or less.

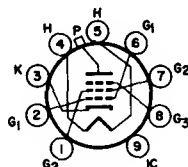
* This value may be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

6JF6

22JF6

BEAM POWER TUBE

Novar type used as horizontal-deflection amplifier in black-and-white television receivers. Outlines section, 18A; requires novar 9-contact socket. Type 22JF6 is identical with type 6JF6 except for heater ratings.

**9QL**

	6JF6	22JF6	
Heater Voltage (ac/dc)	6.3	22	volts
Heater Current	1.6	0.45	amperes
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Peak value	± 200 max	± 200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx.):			
Grid No.1 to Plate	—	1.2	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	—	22	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	—	9	pF

Class A₁ Amplifier**CHARACTERISTICS**

	Triode ^a Connection	Pentode Connection	
Plate Voltage	125	50	130
Peak Positive-Pulse Plate Voltage#	—	6500	—
Grid No.3 (Suppressor Grid)	—	Connected to cathode at socket	—
Grid-No.2 (Screen-Grid) Voltage	125	125	125
Grid-No.1 (Control-Grid) Voltage	—20	0	—20
Triode Amplification Factor	4.1	—	—
Plate Resistance (Approx.)	—	—	12000
Transconductance	—	—	10000
Plate Current	—	525†	80
Grid-No.2 Current	—	32†	2.5
Grid-No.1 Voltage for plate current of 1 mA	—	—125	—40

Horizontal-Deflection Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Supply Voltage	770	volts
Peak Positive-Pulse Plate Voltage#	6500	volts
Peak Negative-Pulse Plate Voltage	1500	volts
DC Grid-No.3 Voltage*	100	volts
DC Grid-No.2 Voltage	220	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	950	mA
Average Cathode Current	275	mA
Grid-No.2 Input	3.5	watts
Plate Dissipation†	17	watts
Bulb Temperature (At hottest point)	240	°C

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For grid-resistor-bias operation†	0.47	megohm
For plate-pulsed operation	—	—
(horizontal-deflection circuits only)	10	megohms

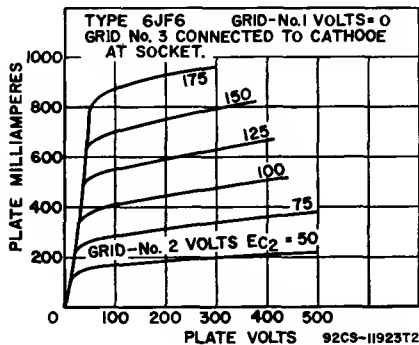
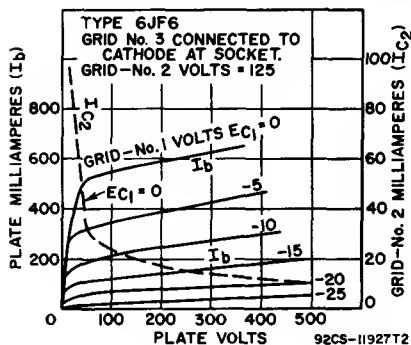
* Grid-No.2 connected to plate at socket.

† This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

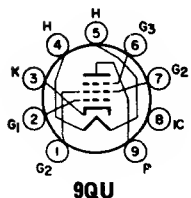
* In this service, a positive value may be applied to grid No.3 to minimize "snivets" interference; a typical value for this voltage is 50 volts.

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



Refer to chart at end of section.

6JG6



BEAM POWER TUBE

6JG6A

17JG6A, 22JG6A

Novar type used as horizontal-deflection amplifier in low-B+, black-and-white television receivers. Outlines section, 31B; requires novar 9-contact socket. For curves of average plate characteristics, refer to type 6JF6. Types 17JG6A and 22JG6A are identical with type 6JG6A except for heater ratings.

Heater Voltage (ac/dc)	
Heater Current	
Heater Warm-up Time (Average)	

6JG6A	17JG6A	22JG6A	
6.3	16.8	22	volts
1.6	0.6	0.45	amperes
—	11	11	seconds

Heater-Cathode Voltage:

Peak value	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	volts

Direct Interelectrode Capacitances:

Grid No.1 to Plate		0.7	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No. 3		22	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3		9	pF

Class A₁ Amplifier

CHARACTERISTICS

	Triode ^a Connection	Pentode Connection	
Plate Voltage	125	50 130	volts
Grid No.3 (Suppressor Grid)	—	Connected to cathode at socket	
Grid-No.2 (Screen-Grid) Voltage	—	125 125	volts
Grid-No.1 (Control-Grid) Voltage	-20	0 -20	volts
Amplification Factor	4.1	—	
Plate Resistance (Approx.)	—	12000	ohms
Transconductance	—	10000	μmhos
Plate Current	—	525* 80	mA
Grid-No.2 Current	—	32* 2.5	mA
Grid-No.1 Voltage (Approx.), for plate current of 1 mA	—	— -40	volts

* With grid No.2 connected to plate at socket.

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