

Peak Negative-Pulse Plate Voltage	1100	volts
DC Grid-No.3 Voltage	75	volts
DC Grid-No.2 Voltage	220	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	1200	mA
Average Cathode Current	350	mA
Grid-No.2 Input	5	watts
Plate Dissipation	30	watts
Bulb Temperature (At hottest point)	250	°C

MAXIMUM CIRCUIT VALUES

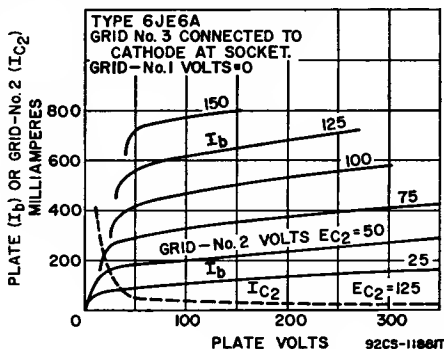
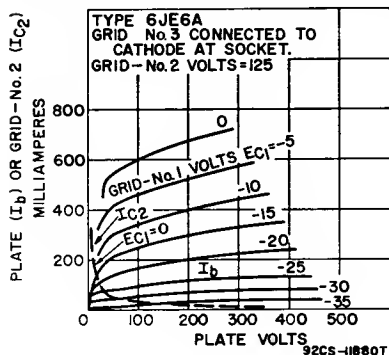
Grid-No.1-Circuit Resistance:

For grid-resistor-bias operation	0.47	megohm
For plate-pulsed operation (horizontal-deflection circuits only)	10	megohms

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

* In this service, a positive voltage may be applied to grid No.3 to minimize "snivets" interference; a typical value for this voltage is 30 volts.

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



Refer to type 6LQ6.

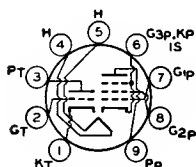
HIGH-MU TRIODE— SHARP-CUTOFF PENTODE

6JE6B

6JE8

11JE8

Miniature type used in television receiver applications. The triode unit is used as a voltage amplifier or sync separator, and the pentode unit as a video amplifier. Outlines section, 6E; requires miniature 9-contact socket. Type 11JE8 is identical with type 6JE8 except for heater ratings.



9DX

Heater Voltage (ac/dc)	6JE8 6.3	11JE8 10.9	volts
Heater Current	0.78	0.45	ampere
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	300	330	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	330	volts
Grid-No.2 Voltage	—	See curve page 98	
Grid-No.1 (Control-Grid) Voltage Positive-bias value	0	0	volts
Plate Dissipation	1	5	watts
Grid-No.2 Input:			
For plate voltages up to 165 volts	—	1.5*	watts
For plate voltages between 165 and 330 volts	—	See curve page 98	

CHARACTERISTICS

Plate Voltage	200	60	250	volts
Grid-No.2 Voltage	—	170	170	volts
Grid-No.1 Voltage	—2	0	—	volts

Triode Unit Pentode Unit

300	330	volts
—	330	volts
—	See curve page 98	
0	0	volts
1	5	watts
—	1.5*	watts
—	See curve page 98	

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.

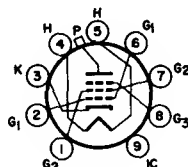
* This value may be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

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		volts
Peak Positive-Pulse Plate Voltage#	—	6500	—		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
Triode Amplification Factor	4.1	—	—	—	
Plate Resistance (Approx.)	—	—	12000		ohms
Transconductance	—	—	10000		μ mhos
Plate Current	—	—	525†	80	mA
Grid-No.2 Current	—	—	32†	2.5	mA
Grid-No.1 Voltage for plate current of 1 mA	—	—125	—	—40	volts

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