

Average Cathode Current	175	mA
Plate Dissipation†	17.5	watts
Grid-No.2 Input	3.5	watts
Bulb Temperature (At hottest point)	240	°C

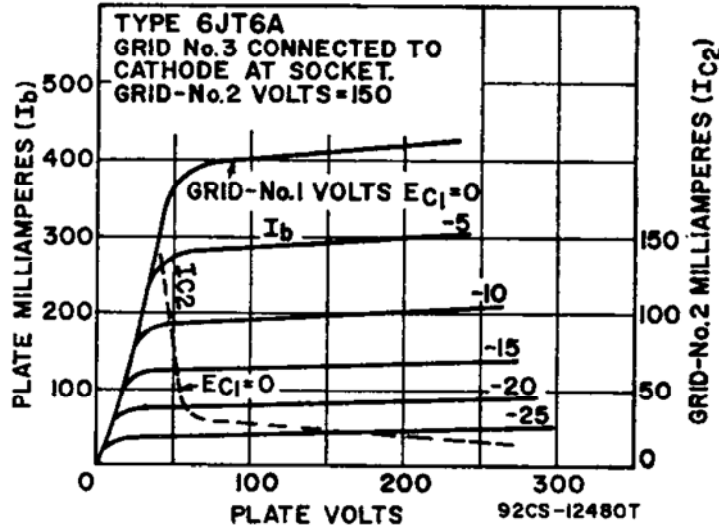
MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance, for grid-resistor-bias operation	1	megohm
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

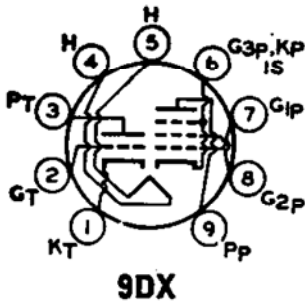
^ A positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in television receivers. A typical value for this voltage is 30 volts.

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



**HIGH-MU TRIODE—
SHARP-CUTOFF PENTODE**

**6JT8
10JT8**



Neonovial type with frame-grid pentode unit used in color and black-and-white television receivers. The triode unit is used as a voltage-amplifier or sync-separator tube, and the pentode unit is used as a video-amplified tube. Outlines section, 10A, except base is small-button miniature 9-pin; requires miniature 9-contact socket. Type 10JT8 is identical with type 6JT8 except for heater ratings.

Heater Voltage (ac/dc)	6JT8 6.3	10JT8 10.2	volts
Heater Current	0.725	0.45	ampere
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:	±200 max	±200 max	volts
Peak value	100 max	100 max	volts
Average value	—	—	—

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Unit	Pentode Unit	
Plate Voltage	330	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	4	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	1.1	watts
For grid-No.2 voltages between 165 and 330 volts	—	See curve page 98	

CHARACTERISTICS

Plate Supply Voltage	250	50	200	volts
Grid-No.2 Supply Voltage	—	100	100	volts
Grid-No.1 Voltage	—2	0	—	volts
Cathode-Bias Resistor	—	—	82	ohms
Amplification Factor	100	—	—	
Plate Resistance (Approx.)	37000	—	50000	ohms

	Triode Unit	Pentode Unit	Unit
Transconductance	2700	—	20000 μ mhos
Plate Current	1.5	55*	17 mA
Grid-No.2 Current	—	18*	3.5 mA
Grid-No.1 Voltage (Approx.) for plate current of 100 μ A	—	—	-5 volts
Grid-No.1 Voltage (Approx.) for plate current of 20 μ A	-5.3	—	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

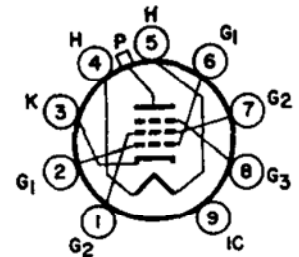
* This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

6JU6

22JU6

BEAM POWER TUBE

Novar type used as horizontal-deflection amplifier in color television receivers. Outlines section, 18A; requires novar 9-contact socket. Type 22JU6 is identical with type 6JU6 except for heater ratings.



9Q1

	6JU6	22JU6	Unit
Heater Voltage (ac/dc)	6.3	20	volts
Heater Current	1.6	0.45	amperes
Heater Warm-up Time	—	11	seconds
Heater-Cathode Voltage:			
Peak value	± 200 max	± 200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
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† Connection		Pentode Connection		Unit
	125	—	50	130	
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	125	125	volts
Grid-No.1 (Control-Grid) Voltage	-20	—	0	-20	volts
Amplification Factor	4.7	—	—	—	
Plate Resistance (Approx.)	—	—	—	18000	ohms
Transconductance	—	—	—	7000	μ mhos
Plate Current	—	—	470††	45	mA
Grid-No.2 Current	—	—	32††	1.5	mA
Grid-No.1 Voltage for plate current of 1 mA	—	-75	—	-32	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*	75	volts
DC Grid-No.2 Voltage	220	volts
DC Grid-No.1 Voltage, Negative-bias value	55	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	$^{\circ}$ C

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For grid-resistor-bias operation	0.47	megohm
For plate-pulsed operation	10	megohms