

Plate to Pentode Cathode, Diode Cathode, Heater, Grid No.2, Grid No.3, and Internal Shields	3	pF
Pentode Grid No.1 to Plate of Diode Unit No.1	0.003 max	pF
Pentode Grid No.1 to Plate of Diode Unit No.2	0.003 max	pF
Pentode Plate to Plate of Diode Unit No.1	0.008 max	pF
Pentode Plate to Plate of Diode Unit No.2	0.008 max	pF

Pentode Unit as Class A₁ Amplifier**MAXIMUM RATINGS (Design-Maximum Values)**

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

CHARACTERISTICS

Plate Supply Voltage	50	200	volts
Grid-No.2 Supply Voltage	100	100	volts
Grid-No.1 Voltage	0	0	volts
Cathode-Bias Resistor	—	82	ohms
Transconductance	—	20000	μmhos
Plate Resistance (Approx.)	—	50000	ohms
Plate Current	55*	17	mA
Grid-No.2 Current	18*	3.5	mA
Grid-No.1 Voltage for plate current of 100 μA	—	—5	volts

MAXIMUM CIRCUIT VALUES

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

Diode Units (Each Unit)**CHARACTERISTICS, Instantaneous Value**

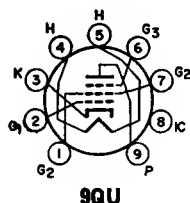
Tube Voltage Drop for plate current of 2 mA	10	volts
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6KV6

17KV6

BEAM POWER TUBE

Novar type used for high-voltage pulse- or shunt-regulator applications in color television receivers. Outlines section, 31D; requires novar 9-contact socket. Type 17KV6 is identical with type 6KV6 except for heating ratings.



	6KV6	17KV6	
Heater Voltage (ac/dc)	6.3	16.8	volts
Heater Current	1.6	0.6	amperes
Heater Warm-up Time	—	11	seconds
Heater-Cathode Voltage:			
Peak value	+200 max	+200 max	volts
Average value	—500 max	—500 max	volts
Direct Interelectrode Capacitances (Approx.):			
Grid No.1 to Plate	100 max	100 max	volts
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3		1.2	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3		22	pF
		9	pF

Class A₁ Amplifier**CHARACTERISTICS**

Plate Voltage	100	140	volts
Grid-No.3 (Suppressor-Grid) Voltage	0	0	volts
Grid-No.2 (Screen-Grid) Voltage	140	140	volts
Grid-No.1 (Control-Grid) Voltage	0	—24.5	volts
Triode Amplification Factor#	—	4	
Plate Resistance (Approx.)	—	6000	ohms
Transconductance	—	9500	μmhos
Plate Current	580*	80	mA
Grid-No.2 Current	24*	2.4	mA
Grid-No.1 Voltage for plate current of 1 mA	—	—42	volts

High-Voltage-Pulse Shunt Regulator

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

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Supply Voltage ($I_b = 0$ mA)	770	volts
Peak Positive-Pulse Plate Voltage ^A	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	75	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	950	mA
Average Cathode Current	275	mA
Plate Dissipation†	20*	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-No.1-resistor-bias operation 1 megohm

Grid-No.3 and grid-No.2 connected, respectively, to cathode and 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.

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

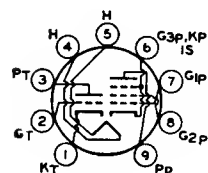
† Adequate circuit precautions must be taken to protect the tube in the absence of grid-No.1 bias.

* Plate dissipation up to 24 watts maximum are permissible for short periods of time (up to 10 seconds maximum) provided the maximum envelope-temperature rating is not exceeded.

HIGH-MU TRIODE—
SHARP-CUTOFF PENTODE

6KV8

11KV8



9DX

Miniature type with frame-grid pentode unit used in black-and-white television receivers. The triode unit is used in general-purpose voltage-amplifier, sync-separator, and sound-if-amplifier applications. The pentode unit is used as a video-output tube. Outlines section, 6E; requires miniature 9-contact socket. For curves of average plate characteristics for triode unit, refer to type 6AW8A. Type 11KV8 is identical with type 6KV8 except for heater ratings.

	6KV8	11KV8	
Heater Voltage (ac/dc)	6.3	10.9	volts
Heater Current	0.775	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
Direct Interelectrode Capacitances (Approx.):			
Triode Unit:			
Grid to Plate		3.7	pF
Grid to Cathode, Heater, Pentode Cathode, Pentode Grid No.3, and Internal Shield		2.5	pF
Plate to Cathode, Heater, Pentode Cathode, Pentode Grid No.3, and Internal Shield		2.4	pF
Triode Grid to Pentode Plate		0.015 max	
Pentode Unit:			
Grid No.1 to Plate		0.12 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		13	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		4.8	pF
Pentode Plate to Triode Plate		0.17 max	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Unit	Pentode Unit	
Plate Voltage	300	300	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	300	volts
Grid-No.2 Voltage	—	See curve	page 98
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volts