

Heater Arrangement	6KN6 Parallel	42KN6 Series	
Heater Voltage	6.3	42	volts
Heater Current	3	0.45	ampere
Heater Warm-up Time	—	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts

Class A₁ Amplifier

CHARACTERISTICS	Triode* Connection	Pentode Connection	
Plate Voltage	130	5500	60 130 volts
Grid-No.2 (Screen-Grid) Voltage	130	125	125 130 volts
Grid-No.1 (Control-Grid) Voltage	—20	—	0 —20 volts
Plate Resistance	—	—	— 4000 ohms
Transconductance	—	—	— 16000 μ mhos
Plate Current	—	—	800 ^A 100 mA
Grid-No.2 Current	—	—	50 ^A 4 mA
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	—	— —33 volts
Grid-No.1 Voltage (Approx.) for plate current of 75 μ A	—	100	— — volts
Amplification Factor	4.5	—	— —

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

* Grid No.2 connected to plate.

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
Grid-No.2 Voltage	220	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Average Cathode Current	400	mA
Peak Cathode Current	1500	mA
Plate Dissipation*	30	watts
Grid-No.2 Input	5	watts
Bulb Temperature (At hottest point)	260	°C

MAXIMUM CIRCUIT VALUE

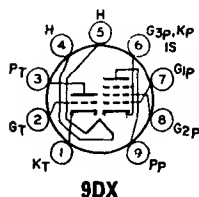
Grid-No.1-Circuit Resistance	1	megohm
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[#] Pulse duration must not exceed 15% of one horizontal scanning cycle (10 microseconds).

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

Refer to chart at end of section.

6KN8/6RHH8



9DX

MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

6KR8
10KR8

Miniature type used in television receiver applications. The triode unit is used as a general-purpose amplifier; the pentode unit is used as a video amplifier. Outlines section, 6E; requires miniature 9-contact socket. Type 10KR8 is identical with type 6KR8 except for heater ratings.

Heater Voltage (ac/dc)	6KR8 6.3	10KR8 10.5	volts
Heater Current	0.75	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)

	Triode Unit	Pentode Unit	
Plate Voltage	—	330	volts
Grid-No.2 (Screen-Grid) Supply Voltage	330	330	volts
Grid-No.2 Voltage	—	See curve page 300	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volts
Plate Dissipation	2	5	watts
Grid-No.2 Input:			
For voltages up to 165 volts	—	1.1	watts
For voltages between 165 and 330 volts	—	See curve page 300	

CHARACTERISTICS

	Triode Unit	Pentode Unit	
Plate Supply Voltage	125	35	200
Grid-No.2 Supply Voltage	—	100	100
Grid-No.1 Voltage	—	0	—
Cathode-Bias Resistor	68	—	82
Amplification Factor	46	—	—
Plate Resistance (Approx.)	4400	—	60000
Transconductance	10400	—	20000
Plate Current	15	54	19.5
Grid-No.2 Current	—	13.5	3
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—8	—	—
Grid-No.1 Voltage (Approx.) for plate current of 100 μ A	—	—	—6.3

MAXIMUM CIRCUIT VALUES

	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.5	0.5	megohm
For cathode-bias operation	1	1	megohm

6KS6

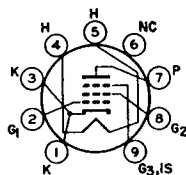
For replacement use type 6BN6/6KS6.

6KT6

3KT6, 4KT6

SEMIREMOTE-CUTOFF
PENTODE

Miniature type with frame grid used as if-amplifier tube in television receivers utilizing an intermediate frequency in the order of 40 MHz. Outlines section, 6B; requires miniature 9-contact socket. Types 3KT6 and 4KT6 are identical with type 6KT6 except for heater ratings.



9PM

	3KT6	4KT6	6KT6	
Heater Voltage (ac/dc)	3.5	4.5	6.3	volts
Heater Current	0.6	0.45	0.3	ampere
Heater Warm-up Time (Average)	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			0.019 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield			9.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield			3	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	330	volts
Grid-No.3 (Suppressor-Grid) Voltage	0	volts
Grid-No.2 (Screen-Grid) Supply Voltage	330	volts
Grid-No.2 Voltage	See curve page 300	
Grid-No.1 (Control-Grid) Voltage	0	volts
Plate Dissipation	3.1	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 165 volts	0.6	watt
For grid-No.2 voltages between 165 and 330 volts	See curve page 300	