

HIGH-MU TRIODE - SHARP-CUTOFF PENTODE TYPE 6KT8

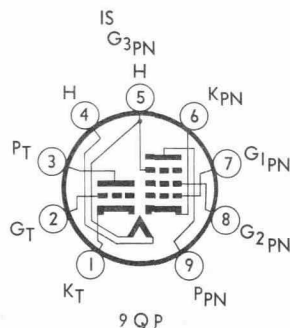
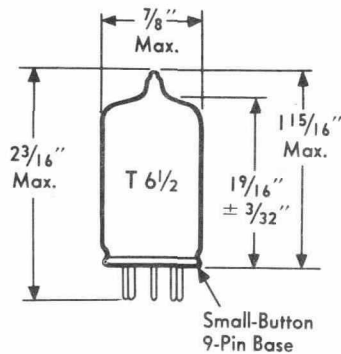
The 6KT8 is a 9-pin miniature high-mu triode and sharp-cutoff pentode type designed for service in color and black-and-white television receivers. The triode unit may serve as a sync separator, sync clipper or phase inverter while the pentode unit may be used as a video amplifier. The 6KT8 is also used in color amplifier and killer circuits.

ELECTRICAL

Cathode.....	Coated Unipotential		
Heater:			
Voltage (ac or dc)	6.3±10%	Volts	
Current	0.60	Ampere	
Direct Interelectrode Capacitances:			
Triode	Unshielded	Shielded (Note 1)	
Grid to Plate	3.0	3.0	pF
Input	3.2	3.2	pF
Output	1.6	2.4	pF
Pentode			
Grid 1 to Plate	0.046	0.03 max.	pF
Input	7.5	7.5	pF
Output	2.2	2.8	pF
Coupling			
Pentode Grid 1 to Triode			
Plate	0.006	0.002 max.	pF
Pentode Plate to Triode Grid ..	0.018	0.003 max.	pF

MECHANICAL

Bulb	T-6½
Base	Miniature 9-Pin (JEDEC E9-1)
Outline	6.2
Basing	9QP
Mounting Position	Any



MAXIMUM RATINGS

Design Maximum Values

	Triode	Pentode	
Plate Voltage	330	330 max.	Volts
Grid 2 Supply Voltage	—	330 max.	Volts
Grid 2 Voltage	—	See Grid 2 Input	
Rating Chart			
Plate Dissipation	1.0	2.5 max.	Watts
Grid 2 Dissipation	—	0.55 max.	Watts
Positive Grid 1 Bias Voltage	0	0 max.	Volts
Grid 1 Circuit Resistance			
Fixed Bias	0.5	0.25 max.	Megohm
Cathode Resistor Bias	1.0	1.0 max.	Megohm
Heater-Cathode Voltage: (Note 2)			
Heater Negative with Respect to Cathode			
Total DC + Peak	200	20 max.	Volts
Heater Positive with Respect to Cathode			
DC Component	100	20 max.	Volts
Total DC + Peak	200	20 max.	Volts

CHARACTERISTICS AND TYPICAL OPERATION

	Triode	Pentode	
Plate Voltage	250	125	Volts
Grid 2 Voltage	—	125	Volts
Grid 1 Voltage	—2	—1	Volts
Amplification Factor	100	—	—
Plate Resistance (Approx.)	31500	150000	Ohms
Transconductance	3200	10000	μmhos
Plate Current	1.8	12	Ma.
Grid 2 Current	—	4.5	Ma.
Grid 1 Cutoff Voltage (Note 3)	—3.5	—7	Volts

NOTES

1. With EIA Shield No. 315 connected to pins 4 & 5.
2. Due to the element connections, this tube must be operated with pin 5 at or near ground potential. Pentode grid 3, internal shield and one side of the heater all connect to pin 5. The instantaneous total cathode to grid 3 voltage may not exceed plus 20 volts.
3. For plate current of 20 microamperes.



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