HIGH-MU TRIODE-SHARP-CUTOFF PENTODE TYPE 6JT8

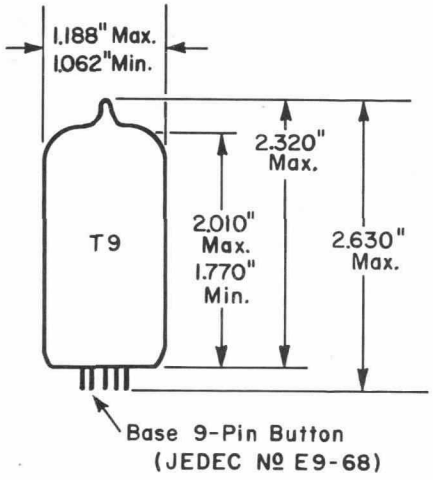
The 6JT8 is a 9-T9 bulb, high-mu triode and sharp-cutoff pentode type designed for service in television receivers. The triode unit is designed for service as a sync separator, sync clipper and phase inverter while the high-gm, frame-grid pentode unit is designed for operation as a video amplifier.

ELECTRICAL

Cathode	Coated Unipotential		
Heater:			
Voltage (ac or dc)	6.3 ± 10%		Volts
Current	0.725		Ampere
Direct Interelectrode Capacitances: (Unshielded)			
Triode			
Grid to Plate	3.2		μμf
Input	1.7		μμf
Output	1.6		μμf
Pentode			
Grid 1 to Plate	0.075	max.	μμf
Input	13		μμf
Output	3		μμf
Coupling			
Pentode Grid 1 to Triode Plate	0.004	max.	μμf
Pentode Plate to Triode Grid	0.02	max.	μμf
Pentode Plate to Triode Plate	0.13	max.	μμf

MECHANICAL

Bulb	T-9
Base	Miniature 9-Pin (JEDEC E9-68)
Outline	9-69
Basing	9DX
Mounting Position	Any



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MAXIMUM RATINGS

Design Maximum Values

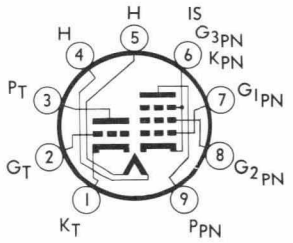
	Triode	Pentode		
Plate Voltage	330	330	max.	Volts
Grid 2 Supply Voltage	–	330	max.	Volts
Grid 2 Voltage	–		See Grid 2 Input Rating Chart	
Plate Dissipation	1.0	4	max.	Watts
Grid 2 Dissipation	–	1.1	max.	Watts
Positive Grid 1 Bias Voltage	0	0	max.	Volts
Grid 1 Circuit Resistance				
Fixed Bias	0.5	0.25	max.	Megohm
Cathode Resistor Bias	1.0	1.0	max.	Megohm
Heater-Cathode Voltage:				
Heater Negative with Respect to Cathode				
Total DC + Peak	200	200	max.	Volts
Heater Positive with Respect to Cathode				
DC Component	100	100	max.	Volts
Total DC + Peak	200	200	max.	Volts

CHARACTERISTICS AND TYPICAL OPERATION

	Triode	Pentode		
Plate Voltage	250	35	200	Volts
Grid 2 Voltage	–	100	100	Volts
Grid 1 Voltage	–2	0	–	Volts
Cathode Bias Resistor	–	–	82	Ohms
Amplification Factor	100	–	–	–
Plate Resistance (Approx.)	37000	–	50000	Ohms
Transconductance	2700	–	20000	μmhos
Plate Current (Note 1)	1.5	50	17	Ma.
Grid 2 Current (Note 1)	–	17	3.5	Ma.
Grid 1 Voltage (Note 2)	–5.3	–	–5	Volts

NOTES

1. Zero bias pentode values can be measured by a method involving a re-current waveform such that the plate and grid 2 dissipation will be kept within ratings to prevent aamage to the tube.
2. For plate current of 20 microamperes in triode unit and 100 microamperes in pentode unit.



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