

MEDIUM-MU TRIODE-SHARP-CUTOFF PENTODE TYPE 6HL8

The 6HL8 is a 9-Pin miniature medium-mu triode and sharp-cutoff pentode type designed for service in color television receivers. The triode unit is suitable for sync separator or low frequency oscillator or amplifier applications. The high-gm pentode unit can serve well as an I.F. or video amplifier.

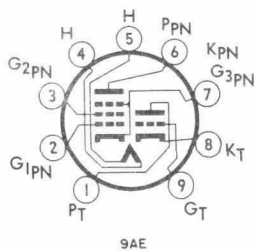
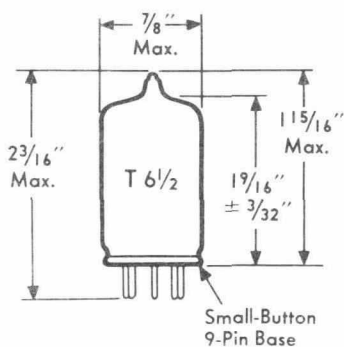
The 6HL8 has a heater designed to perform well in either series or parallel circuits. When connected in parallel, heater voltage must be maintained within specified limits. When series connected, heater current must be controlled.

ELECTRICAL

Cathode.....	Coated Unipotential		
Heater:	Series	Parallel	
Voltage (ac or dc)	6.3	6.3±10%	Volts
Current	0.60±6%	0.60	Ampere
Warm-Up Time (Note 1)	11	—	Seconds
Direct Interelectrode Capacitances:			
Triode Unit	Unshielded	Shielded (Note 2)	
Grid to plate	2.8	2.8	pf
Input	2.8	3.0	pf
Output	1.6	2.4	pf
Pentode Unit			
Grid 1 to Plate	0.025 max.	0.03 max.	pf
Input	7.5	7.5	pf
Output	2.3	3.0	pf

MECHANICAL

Bulb	T-6½
Base	Miniature 9-Pin (JEDEC E9-1)
Basing	9AE
Outline	6-2
Mounting	Any



MAXIMUM RATINGS

Design Maximum Values

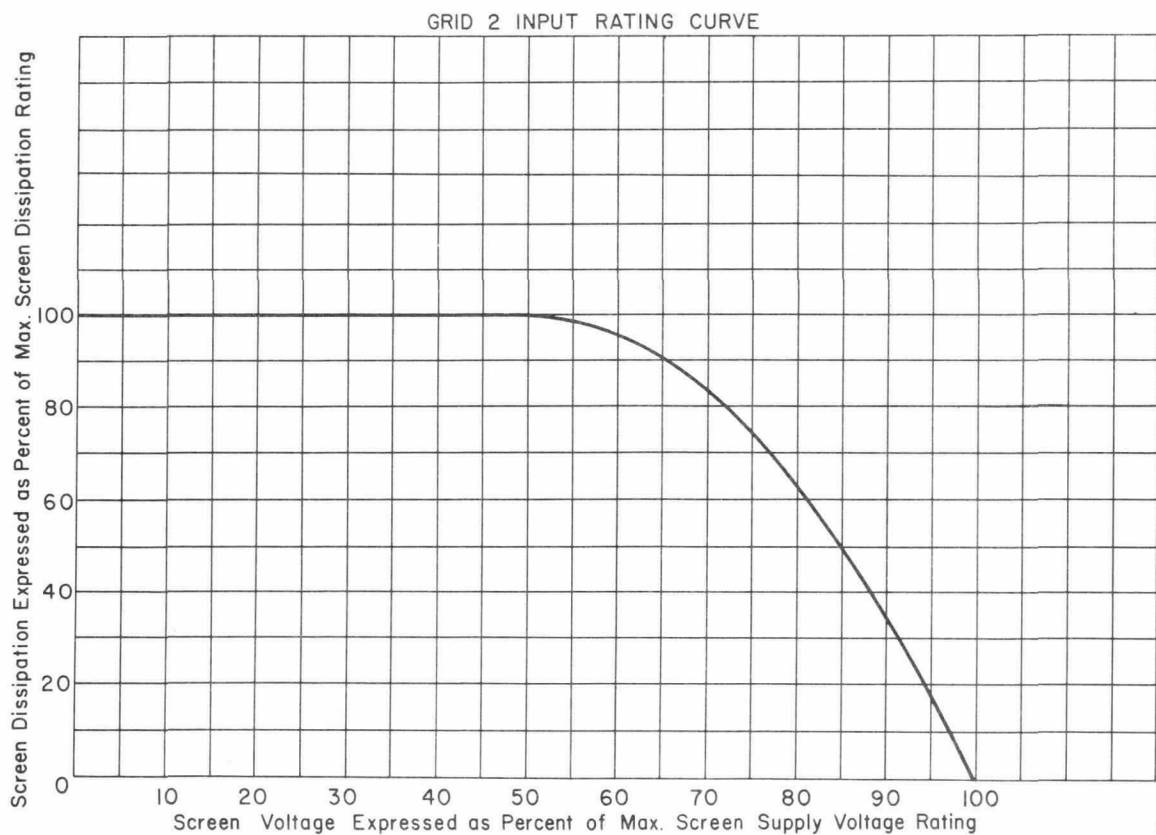
	Triode Unit	Pentode Unit	
Plate Voltage	330	330	max. Volts
Grid 2 (Screen) Voltage	—	See Grid 2 Input Rating Curve	
Grid 2 Supply Voltage	—	330	max. Volts
Grid 1 (Control Grid) Voltage			
Positive Bias Value	0	0	max. Volts
Plate Dissipation	2.5	2.5	max. Watts
Grid 2 Input	—	0.55	max. Watt
Heater Cathode Voltage			
Heater Positive with			
Respect to Cathode			
DC Component	100	100	max. Volts
Total DC and Peak	200	200	max. Volts
Heater Negative with Respect			
to Cathode, Total DC and			
Peak	200	200	max. Volts
Grid Circuit Resistance:			
Fixed Bias	1.0	—	max. Megohm
Cathode Resistor Bias	1.0	—	max. Megohm

CHARACTERISTICS

	Triode Unit	Pentode Unit	
Plate Voltage	125	125	Volts
Grid 2 Voltage	—	125	Volts
Grid 1 Voltage	—1.0	—1.0	Volts
Amplification Factor	40	—	—
Plate Resistance (Approx.)	5000	150000	Ohms
Transconductance	7000	10000	μmhos
Grid 1 Cutoff Bias (Note 3)	—	—7	Volts
Plate Current	12.5	12	Ma.
Grid 2 Current	—	4.5	Ma.

NOTES

1. Heater Warm-up Time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times rated heater voltage divided by rated heater current.
2. With JEDEC shield #315 connected to Cathode of unit under test.
3. For plate current of 20 microamperes.



CE-A864