

TRIODE-PENTODE CONVERTER TYPES 5HB7 AND 6HB7

The 5HB7 and 6HB7 are 9-Pin miniature medium-mu triode and sharp-cutoff pentode types designed for service as combined oscillator and mixer in television receiver tuners using an intermediate frequency of approximately 40 mc.

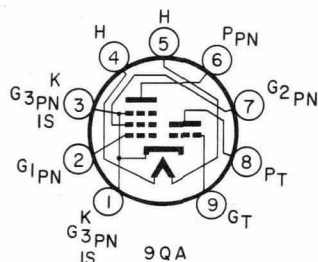
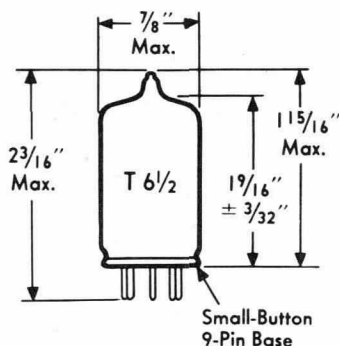
The 5HB7 and 6HB7 have been designed for use in receivers which employ series connected heaters. When each is employed in this type of circuit heater voltage surges are minimized inasmuch as the heater warm-up characteristic is controlled.

ELECTRICAL

Cathode.....	Coated Unipotential		
Heater:	5HB7	6HB7	
Voltage (ac or dc)	4.7	6.3	Volts
Current	0.60 ± 0.040	0.45 ± 0.030	Amperes
Warm-up Time (Note 1)	11	11	Seconds
Direct Interelectrode Capacitances: Shielded (Note 2)			
Triode Unit:			
Grid to Plate	1.9		pF
Input.....	3.0		pF
Output.....	1.9		pF
Pentode Unit:			
Grid 1 to Plate	0.010	max.	pF
Input.....	5.0		pF
Output.....	3.4		pF
Heater to Cathode (Note 3).....	3.8		pF

MECHANICAL

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



MAXIMUM RATINGS

Design Maximum Values

	Triode Unit	Pentode Unit	
Plate Voltage	330	330	max. Volts
Grid 2 (Screen) Voltage	—	See JEDEC J5-C4-2	
		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	3.1	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

CHARACTERISTICS

	Triode Unit	Pentode Unit	
Plate Voltage	150	125	Volts
Grid 2 Voltage	—	125	Volts
Grid 1 Voltage	—	—1	Volts
Cathode Bias Resistor	56	—	Ohms
Amplification Factor	40	—	—
Plate Resistance (Approx.)	5000	20000	Ohms
Transconductance	8500	6400	μmhos
Grid 1 Cutoff Bias (Note 4)	—12	—9	Volts
Plate Current	18	12	Ma.
Grid 2 Current	—	4	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. With JEDEC shield #315 connected to ground.
4. For plate current of 10 microamperes.

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NEW INFORMATION

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