

Heater Arrangement	6LB8 Parallel	10LB8 Series	
Heater Voltage	6.3	10.2	volts
Heater Current	0.725	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

MAXIMUM RATINGS (Design-Maximum Values)	Triode Unit	Pentode Unit	
Plate Voltage	330	330	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	330	volts
Grid-No.2 Voltage	—	See curve page 98	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volts
Plate Dissipation	2	4	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	1.1	watts
For grid-No.2 voltages between 165 and 330 volts	—	See curve page 98	

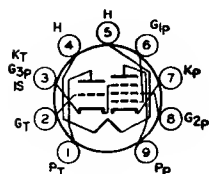
CHARACTERISTICS

Plate Supply Voltage	125	50	200	volts
Grid-No.2 Supply Voltage	—	100	100	volts
Grid-No.1 Voltage	0	0	0	volts
Cathode-Bias Resistor	68	—	82	ohms
Amplification Factor	30	—	—	
Plate Resistance (Approx.)	6000	—	50000	ohms
Transconductance	5000	—	20000	μmhos
Plate Current	13	55*	17	mA
Grid-No.2 Current	—	18*	3.5	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μA	—10	—	—	volts
Grid-No.1 Voltage (Approx.) for plate current of 100 μA	—	—	—5	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1 Circuit Resistance:			
For fixed-bias operation	0.5	0.25	megohm
For cathode-bias operation	1	1	megohm

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

HIGH-MU TRIODE—
SHARP-CUTOFF PENTODE6LC8
8LC8

9QY

Miniature type used in color and black-and-white television receiver applications. Pentode unit is used in noise-immune gated-age-amplifier circuits, and the triode unit in sync-separator circuits. Outlines section, 6E; requires miniature 9-contact socket. Type 8LC8 is identical with type 6LC8 except for heater ratings. For curves of average plate characteristics, refer to type 6KA8.

Heater Voltage (ac/dc)	6LC8 6.3	8LC8 8.4	volts
Heater Current	0.6	0.45	ampere
Heater Warm-up Time (Average)	11	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts

Direct Interelectrode Capacitances:

Triode Unit:			
Grid to Plate	2.2		pF
Grid to Cathode, Heater, Pentode Grid No.3, and Internal Shield	2.8		pF
Plate to Cathode, Heater, Pentode Grid No.3, and Internal Shield	2.2		pF
Pentode Unit:			
Grid No.1 to Plate	0.10 max		pF
Grid No.1 to Cathode, Heater, Grid No.3, Triode Cathode, and Internal Shield	10		pF
Grid No.3, Triode Cathode, and Internal Shield to Plate	3.4		pF
Grid No.1 to Grid No.3, Triode Cathode, and Internal Shield	0.36		pF
Grid No.3, Triode Cathode, and Internal Shield to Plate, Cathode, Heater, Grid No.1, and Grid No.2	12.5		pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Unit	
Plate Voltage	300	volts
Grid Voltage:		
Positive-bias value	0	volts
Negative-bias value	50	volts
Plate Dissipation	1.1	watts

CHARACTERISTICS

	Triode Unit	Pentode Unit	
Plate Supply Voltage	200	150	volts
Grid-No.2 Supply Voltage	—	100	volts
Grid-No.1 Voltage	—2	—	volts
Cathode-Bias Resistor	—	180	ohms
Amplification Factor	70	—	
Plate Resistance (Approx.)	17500	100000	ohms
Transconductance, Grid No.1 to Plate	4000	4400	μmhos
Transconductance, Grid No.3 to Plate	—	600	μmhos
Plate Current	4	4	mA
Grid-No.2 Current	—	2.8	mA
Grid-No.1 Voltage (Approx.):			
For plate current of 10 μA	—5	—	volts
For plate current of 20 μA	—	—4	volts
Grid-No.3 Voltage (Approx.) for plate current of 20 μA	—	—7*	volts

MAXIMUM CIRCUIT VALUES

	Triode Unit	
Grid-Circuit Resistance:		
For fixed-bias operation	0.25	megohm
For cathode-bias operation	1	megohm

* With no external connection to triode plate and triode grid.

Gated AGC Amplifier and Noise Inverter

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)

	Pentode Unit	
DC Plate Voltage	300	volts
Peak Positive-Pulse Plate Voltage#	600	volts
Grid-No.3 (Control-Grid) Voltage:		
Positive-bias value	0	volts
Negative-bias value	100	volts
Grid-No.2 (Screen-Grid) Supply Voltage	300	volts
Grid-No.2 Voltage	See curve page 98	
Grid-No.1 (Control-Grid) Voltage:		
Positive-bias value	0	volts
Negative-bias value	50	volts
Plate Dissipation	2	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 150 volts	1.1	watts
For grid-No.2 voltages between 150 and 300 volts	See curve page 98	

MAXIMUM CIRCUIT VALUES

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

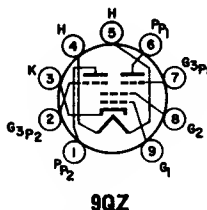
Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

6LE8

10LE8, 15LE8

TWIN PENTODE

Miniature type used as combined color demodulator and matrix amplifier in color television receivers utilizing high-level demodulation systems. Outlines section, 6G; requires miniature 9-contact socket. Types 10LE8 and 15LE8 are identical with type 6LE8 except for heater ratings.



9QZ

	6LE8	10LE8	15LE8	
Heater Voltage (ac/dc)	6.3	10.0	15.0	volts
Heater Current	0.76	0.45	0.30	ampere
Heater Warm-up Time (Average)	—	11	11	seconds
Heater-Cathode Voltage:				
Peak value	+200, —300 max			volts
Average value	100 max			volts