6Y9

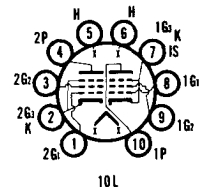
11Y9/LFL200, 17Y9

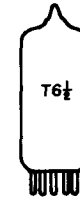
Color Television Type

VIDEO AMPLIFIER, SOUND IF, AGC AMP. or SYNC SEP.

Double Dissimilar Pentode

Construction .....Miniature T-6½
Base .....Button 9 Pin, E9-1
Basing 10L
Outline
Maximum Diameter .....0.875 In.
Maximum Seated Height .....2.625 In.
Maximum Overall Height .....2.875 In.





ELECTRICAL DATA

HEATER OPERATION

	17Y9	11Y9/LFL200	6Y9
Heater Voltage	17.0	11.0	6.3 Volts
Heater Current	300	450	800 Ma
Maximum Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
Total DC and Peak			200 Volts
Heater Positive with Respect to Cathode			
DC			100 Volts
Total DC and Peak			200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Pentode No. 1	
Plate to All Other Elements (Except Grid No. 1)	7 Pf
Grid No. 1 to All Other Elements (Except Plate)	12 Pf
Plate to Grid No. 1	0.095 Pf
Pentode No. 2	
Plate to All Other Elements (Except Grid No. 1)	11 Pf
Grid No. 1 to All Other Elements (Except Plate)	10 Pf
Plate to Grid No. 1	0.140 Pf
Grid No. 1 to Heater	0.100 Pf
Between Pentode No. 1 and Pentode No. 2	
Plate to Plate	0.150 Pf
Grid to Grid	0.010 Pf
Plate of Pentode No. 1 to Control Grid of Pentode No. 2	0.100 Pf
Plate of Pentode No. 2 to Control Grid of Pentode No. 2	0.005 Pf

RATINGS (Absolute Maximum Rating System)

Pentode No. 1	
Plate Voltage (Zero Plate Current)	600 Volts
Plate Voltage	275 Volts
Grid No. 2 Voltage (Zero Grid Current)	600 Volts
Grid No. 2 Voltage	275 Volts
Plate Dissipation	5.8 Watts
Grid No. 2 Dissipation(1)	2.9 Watts
Cathode Current(2)	66 Ma
Grid No. 1 Resistance	1 Megohm
Pentode No. 2	
Plate Voltage (Zero Plate Current)	600 Volts
Plate Voltage	275 Volts
Grid No. 2 Voltage (Zero Grid Current)	600 Volts
Grid No. 2 Voltage	275 Volts
Plate Dissipation	1.75 Watts
Grid No. 2 Dissipation	0.6 Watt
Cathode Current	16.5 Ma
Grid No. 1 Resistance	1 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Pentode No. 1	Pentode No. 2
Plate Voltage	170	150 Volts
Grid No. 2 Voltage	170	150 Volts
Grid No. 1 Voltage	−2.6	−2.3 Volts
Plate Current	30	10 Ma
Grid No. 2 Current	6.5	3.0 Ma
Transconductance	21,000	8500 μmhos
Amplification Factor (Grid No. 1 to Grid No. 2)	38	35
Internal Resistance	40	160 K Ohms

Pentode No. 1—Video Output					
Supply Voltage	135	135	230	250	250 Volts
Supply Series Resistor	0	0	820	1200	0 Ohms
Voltage at Ebb	—	—	190	190	0 Volts
Plate Resistance	2.2	4.7	2	3.9	3.3 K Ohms
Grid No. 2 Resistor	0	0	1	1	3.9 K Ohms
Cathode Resistor	6.8	6.8	6.8	6.8	15 Ohms
Peak to Peak Input Signal	2.5	1.4	3.6	1.8	5.5 Volts
Peak to Peak Output Signal	90	90	100	100	160 Volts

Pentode No. 2—Sync Separator		
Supply Voltage	100-140	200-250 Volts
Plate Resistance	50	50 K Ohms
Grid No. 2 Voltage	75	75 Volts
Grid No. 1 Resistor	1	1 Megohm
Grid No. 1 Voltage	−2.6	−2.7 Volts
Plate Current	0.1	0.1 Ma
Transconductance	250	200 μmhos

Pentode No. 2	**AGC Amplifier**	**IF Amplifier**	
Plate Voltage	100-150	135	150 Volts
Grid No. 2 Voltage	60	135	150 Volts
Grid No. 1 Voltage	−1.3	−1.9	−2.3 Volt
Plate Current	1.0	10	10 Ma
Transconductance	2500	8700	8500 μmhos

NOTES:

(1) For short periods, cathode current = 85 Ma (Max.)
(2) For short periods, cathode current = 93 Ma (Max.)

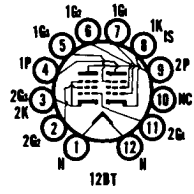
LIMITER/DISCRIMINATOR and AUDIO POWER AMPLIFIER

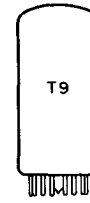
6Z10

10Z10

Gated Beam Pentode and Beam Power Pentode

Construction.....Compactron T-9
Base .....Button 12 Pin, E12-70
Basing 12BT
Outline 9-58
Maximum Diameter .....1.188 In.
Maximum Seated Height .....2.000 In.
Maximum Overall Height .....2.375 In.





ELECTRICAL DATA

HEATER OPERATION

	10Z10	6Z10
Heater Voltage	10.0	6.3 Volts
Heater Current	600	950 Ma
Heater Warm-up Time	11	— Seconds
Maximum Heater-Cathode Voltage		
Heater Negative with Respect to Cathode		
Total DC and Peak		200 Volts
Heater Positive with Respect to Cathode		
DC		100 Volts
Total DC and Peak		200 Volts
DIRECT INTERELECTRODE CAPACITANCES		
Gated-Beam Discriminator Section No. 1		
Grid No. 1 to Grid No. 3		0.009 Pf
Grid No. 1 to All		4.4 Pf
Grid No. 3 to All		3.2 Pf
Pentode Section No. 2		
Grid No. 1 to Plate		0.22 Pf
Input		11 Pf
Output		7.5 Pf
RATINGS (Design Maximum Rating System)		
Gated Beam Discriminator Section No. 1		
Plate Supply Voltage (Max.)		330 Volts
Accelerator-Supply Voltage (Max.)		330 Volts
Peak Positive Grid No. 1 Voltage (Max.)		60 Volts
DC Cathode Current (Max.)		13 Ma
Pentode Section No. 2		
Plate Voltage (Max.)		275 Volts
Screen Voltage (Max.)		275 Volts