ELECTRICAL DATA

HEATER OPERATION

Heater Voltage	6.3 Volts
Heater Current	450 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

Triode	
Grid to Plate	1.7 Pf
Grid to Cathode, Heater, Pentode Grid No. 3 and Internal Shield	2.0 Pf
Plate to Cathode, Heater, Pentode Grid No. 3 and Internal Shield	1.7 Pf
Pentode	
Grid No. 1 to Plate (Max.)	0.02 Pf
Grid No. 1 to Cathode, Heater, Grid No. 2, Grid No. 3 and Internal Shield	6.5 Pf
Plate to Cathode, Heater, Grid No. 2, Grid No. 3 and Internal Shield	2.2 Pf
Coupling	
Triode Grid to Pentode Plate (Max.)	0.027 Pf
Pentode Grid No. 1 to Triode Plate (Max.)	0.020 Pf
Pentode Plate to Triode Plate (Max.)	0.045 Pf

RATINGS (Design Center Rating System)

	Triode	Pentode
Plate Voltage (Max.)	300	300 Volts
Grid No. 2 Supply Voltage (Max.)	—	300 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Grid No. 1 Voltage (Positive Bias) (Max.)	0	0 Volt
Plate Dissipation (Max.)	2.6	2 Watts
Grid No. 2 Input		
For Grid No. 2 Voltage up to 150 Volts (Max.)	—	0.5 Watt
For Grid No. 2 Voltage Between 150 and 300 Volts	See Rating Chart (Gen. Info. Sec.)	
Maximum Circuit Values		
Grid No. 1 Circuit Resistance		
Fixed Bias	0.5	0.25 Megohm
Cathode Bias	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Triode	Pentode
Plate Supply Voltage	200	200 Volts
Grid No. 2 Voltage	—	150 Volts
Grid No. 1 Voltage	- 6	— Volts
Cathode Bias Resistor	—	180 Ohms
Plate Resistance	5750	300,000 Ohms
Transconductance	3300	6000 μmhos
Grid No. 1 Voltage for Ib = 10 μa	-19	— Volts
Grid No. 1 Voltage for Gm = 10 μmhos	—	-12.5 Volts
Plate Current	13	9.5 Ma
Grid No. 2 Current	—	3 Ma

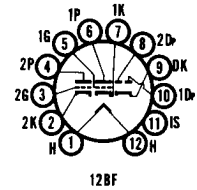
6B10

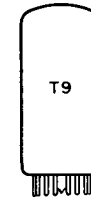
8B10

HORIZONTAL PHASE DETECTOR (D) HORIZONTAL OSCILLATOR (T)

Double Diode and Medium Mu Twin Triode

Construction ..... Compactron T-9
Base ..... Button 12 Pin, E12-70
Basing 12BF
Outline
Maximum Diameter ..... 1.188 In.
Maximum Seated Height ..... 1.500 In.
Maximum Overall Height ..... 1.846 In.





ELECTRICAL DATA

HEATER OPERATION

	8B10	6B10
Heater Voltage	8.5	6.3 Volts
Heater Current	450	600 Ma
Heater Warm-up Time	11	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 (Unshielded)	
Triode No. 1	
Grid to Plate	1.5 Pf
Input: 1Tg to (h + 1Tk + IS)	1.7 Pf
Output: 1Tp to (h + 1Tk + IS)	1.6 Pf
Triode No. 2	
Grid to Plate	1.5 Pf
Input: 2Tg to (h + 2Tk + IS)	1.8 Pf
Output: 2Tp to (h + 2Tk + IS)	0.6 Pf
Diode No. 1	
Plate to Cathode, Heater and Internal Shield	1.9 Pf
Diode No. 2	
Plate to Cathode, Heater, and Internal Shield	1.8 Pf
Coupling	
Triode Plate to Triode Plate	0.9 Pf
Diode Plate to Diode Plate	0.7 Pf
Triode No. 1 Grid to Diode No. 1 Plate	1.015 Pf
Triode No. 2 Grid to Diode No. 1 Plate	0.005 Pf
Triode No. 1 Grid to Diode No. 2 Plate	0.02 Pf
Triode No. 2 Grid to Diode No. 2 Plate	0.005 Pf
RATINGS (Design Maximum Rating System)	
Triode (Each Section)	
Plate Voltage	330 Volts
Plate Dissipation	2.5 Watts
DC Cathode Current	20 Ma
Grid Circuit Resistance	
Fixed Bias	0.25 Megohm
Cathode Bias	1.0 Megohm
Diode (Each Section)	
Average Diode Current for Eb = 5 Volts	20 Ma
CHARACTERISTICS AND TYPICAL OPERATION	
Triode (Each Section)	
Plate Voltage	250 Volts
Grid Voltage	–9.5 Volts
Plate Current	7.0 Ma
Amplification Factor	18
Plate Resistance	9750 Ohms
Transconductance	1850 μmhos
Grid Voltage for Ib = 50 μa	–20 Volts
Diode (Each Section)	
Average Diode Current for Eb = 5 Volts	20 Ma

Color Television Type

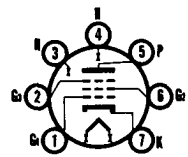
RF/IF AMPLIFIER

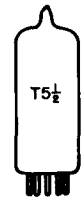
6BA6/EF93

3BA6, 4BA6, 12BA6

Semi-Remote Cutoff Pentode

Construction	Miniature T-5½
Base	Button 7 Pin, E7-1
Basing	7BK
Outline	5-2
Maximum Diameter	0.750 In.
Maximum Seated Height	1.875 In.
Maximum Overall Height	2.125 In.





ELECTRICAL DATA

HEATER OPERATION

	3BA6	4BA6	12BA6	6BA6/EF93
Heater Voltage	3.15	4.2	12.6	6.3 Volts
Heater Current	600	450	150	300 Ma
Heater Warm-up Time	11	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