

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 μ mhos
Grid No. 1 Voltage for $I_b = 10 \mu$ a	—19	— Volts
Grid No. 1 Voltage for $G_m = 10 \mu$ mhos	—	—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

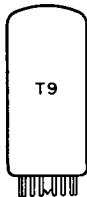
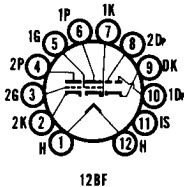
Construction.....Compactron T-9
Base

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 μ mhosGrid Voltage for Ib = 50 μ a -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
Heater Voltage.....	3.15	4.2	12.6
Heater Current.....	600	450	150
Heater Warm-up Time.....	11	11	—

Maximum Heater-Cathode Voltage

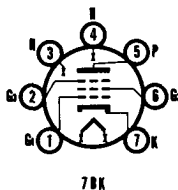
Heater Negative with Respect to Cathode

Total DC and Peak 200 Volts

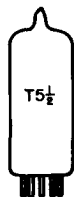
Heater Positive with Respect to Cathode

DC 100 Volts

Total DC and Peak 200 Volts



7BK



T5½

6BA6/EF93

6.3 Volts

300 Ma

— Seconds