

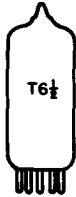
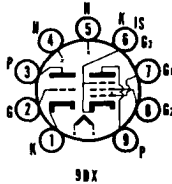
**SYNC SEPARATOR, SOUND
IF/VOLTAGE AMP. (T)
VIDEO AMPLIFIER (P)**

6KV8

11KV8

**High Mu Triode and
Sharp Cutoff Pentode**

Construction Miniature T-6½
Base Button 9 Pin, E9-1
Basing 9DX
Outline 6-3
Maximum Diameter 0.875 In.
Maximum Seated Height 2.375 In.
Maximum Overall Height 2.625 In.



ELECTRICAL DATA

HEATER OPERATION

	11KV8	6KV8
Heater Voltage.....	10.9	6.3 Volts
Heater Current	450	775 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 (Unshielded)

Triode Section

Grid to Plate	3.7 Pf
Input: g to (h + Tk + Pk, g3, IS)	2.5 Pf
Output: p to (h + Tk + Pk, g3, IS)	2.4 Pf

Pentode Section

Grid No. 1 to Plate (Max.).....	0.12 Pf
Input: g1 to (h + Pk, g3, IS + g2)	13 Pf
Output: p to (h + Pk, g3, IS + g2)	4.8 Pf

Coupling

Triode Grid to Pentode Plate (Max.)	0.015 Pf
Pentode Plate to Triode Plate (Max.)	0.17 Pf

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Plate Voltage (Max.)	300	300 Volts
Grid No. 2 Supply Voltage (Max.)	—	300 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Plate Dissipation (Max.)	1.0	5.0 Watts
Grid No. 2 Dissipation		
Up to 150 Voltage (Max.)	—	1.1 Watts
150 to 300 Volts	See Rating Chart (Gen. Info. Sec.)	
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	0.5	0.1 Megohm
Cathode Bias (Max.)	1.0	0.25 Megohm
Control grid to cathode spacing of the pentode section of this type is of such low order of magnitude as to preclude the use of voltage between these elements of more than 50 volts DC or peak AC in commercial tube checkers and shorts indicating devices, particularly where mechanical excitation of the tube is employed.		

CHARACTERISTICS AND TYPICAL OPERATION

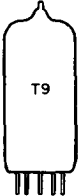
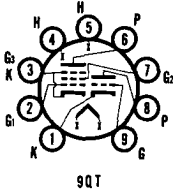
	Triode Section	Pentode Section
Plate Voltage	200	125 200 Volts
Grid No. 2 Voltage	—	125 125 Volts
Grid No. 1 Voltage	—2	0 0 Volts
Cathode Bias Resistor	—	82 68 Ohms
Plate Current	4	16.5 20 Ma
Grid No. 2 Current	—	3.1 3.5 Ma
Transconductance	4000	21,000 23,000 μ mos
Amplification Factor	70	—
Plate Resistance (Approx.)	17,500	55,000 75,000 Ohms
E _{c1} for I _b = 100 μ a (Approx.)	—4.5	—4.2 —4.2 Volts

6KY8
15KY8

**VERTICAL DEFLECTION
OSCILLATOR (T) and
AMPLIFIER (P)**

**High Mu Triode and
Beam Power Pentode**

Construction Novar T-9
Base Button 9 Pin, E9-75
Basing 9QT
Outline
Maximum Diameter 1.188 In.
Maximum Seated Height 2.730 In.
Maximum Overall Height 3.110 In.



ELECTRICAL DATA

HEATER OPERATION

	15KY8	6KY8
Heater Voltage.....	15.0	6.3 Volts
Heater Current	450	1100 Ma
Heater Warm-up Time	11	— Seconds
Maximum Heater-Cathode Voltage		
Heater Negative with Respect to Cathode		200 Volts
Total DC and Peak.....		
Heater Positive with Respect to Cathode		
DC		100 Volts
Total DC and Peak.....		200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Triode Section

Grid to Plate	0.44 Pf
Input: g to (h + Tk)	15.0 Pf
Output: p to (h + Tk)	7.0 Pf

Pentode Section

Grid No. 1 to Plate (Max.).....	0.048 Pf
Input: g1 to (h + Pk, g2, g3).....	2.6 Pf
Output: p to (h + Pk, g2, g3).....	0.28 Pf

RATINGS (Design Maximum Rating System)

Vertical Deflection Oscillator and Amplifier⁽¹⁾

	Tri. Osc.	Pent. Amp.
Plate Voltage (Max.)	330	300 Volts
Grid No. 2 Voltage (Max.)	—	150 Volts
Peak Positive Pulse Plate Voltage (Max.)	—	2000 Volts
Peak Negative Grid No. 1 Voltage (Max.)	400	250 Volts
Plate Dissipation (Max.) ⁽²⁾	1.5	12 Watts
Grid No. 2 Dissipation (Max.) ⁽²⁾	—	1.9 Watts
Average Cathode Current (Max.).....	22	70 Ma
Peak Cathode Current (Max.)	77	200 Ma
Grid Circuit Resistance		
Self Bias (Max.)	2.2	2.2 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	250	135 Volts
Grid No. 2 Voltage	—	120 Volts
Grid No. 1 Voltage	—3	—10 Volts
Plate Current	1.4	39 Ma
Grid No. 2 Current	—	3 Ma
Transconductance	1600	8400 μ mhos
Amplification Factor	64	—
Plate Resistance (Approx.)	40,000	18,000 Ohms
Ec for Ib = 1 Ma (Approx.).....	—	—24 Volts

INSTANTANEOUS PLATE KNEE VALUES

Eb = 50 V; Ec2 = 120 V; and Ec = 0 V
Ib = 170 Ma, and Ic2 = 20 Ma

NOTES:

- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.