

Grid No. 1 Circuit Resistance

Fixed Bias (Max.)	0.5	0.5 Megohm
Cathode Bias (Max.)	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

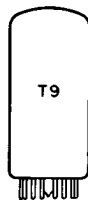
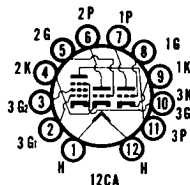
	Pentode Section	Triode Section
Plate Voltage	35 200	250 Volts
Screen Voltage	100 100	— Volts
Grid No. 1 Voltage	0 —	-2.0 Volts
Cathode Bias Resistor	— 82	— Ohms
Amplification Factor	— —	100
Plate Resistance (Approx.)	— 60,000	59,000 Ohms
Transconductance	— 20,000	1700 μ mhos
Plate Current	54 19.5	1.0 Ma
Screen Current	13.5 3.0	— Ma
Grid Voltage (Approx.) $I_b = 10 \mu a$	— —	-5 Volts
Grid No. 1 Voltage (Approx.) $I_b = 100 \mu a$	— -6.3	— Volts

6M11

Color Television Type

**SYNC SEP. and AGC AMP. (T)
IF AMPLIFIER (P)****Double High Mu Triode and
Sharp Cutoff Pentode**

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

**ELECTRICAL DATA****HEATER OPERATION**

Heater Voltage	6.3 Volts
Heater Current	750 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)**Triode (Each Section)**

Grid to Plate	1.8 Pf
Input: T_g to $(T_k + P_k + P_{g3} + h + IS)$	3.8 Pf
Output: T_p to $(T_k + P_k + P_{g3} + h + IS)$	1.1 Pf

Pentode Section

Grid No. 1 to Plate	0.028 Pf
Input: P_{g1} to $(P_k + P_{g2} + P_{g3} + IS)$	11.5 Pf
Output: P_p to $(P_k + P_{g2} + P_{g3} + IS)$	2.8 Pf

RATINGS (Design Maximum Rating System)

	Pentode Section	Each Triode Section
Plate Voltage (Max.)	330	330 Volts
Screen Supply Voltage (Max.)	330	— Volts
Screen Voltage	See Rating Chart (Gen. Info. Sec.)	
Positive DC Grid No. 1 Voltage	0	0 Volt
Plate Dissipation (Max.)	3.1	2.25 Watts
Screen Dissipation (Max.)	0.65	— Watts
Grid Circuit Resistance		
Cathode Bias (Max.)	1.0	0.68 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Pentode Section	Each Triode Section
Plate Voltage	125	125 Volts
Screen Voltage	125	— Volts
Cathode Bias Resistor	56	120 Ohms

Amplification Factor	—	58
Plate Resistance (Approx.)	200,000	7250 Ohms
Transconductance	13,000	8000 μ mhos
Plate Current	11	8.0 Ma
Screen Current	3.4	— Ma
Grid No. 1 Voltage (Approx.) $I_b = 20 \mu$ a	-3.5	— Volts
Grid No. 1 Voltage (Approx.) $I_b = 50 \mu$ a	—	-4.5 Volts

Color Television Type

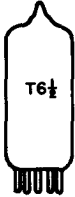
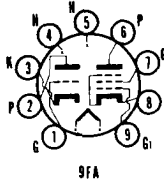
**BURST AMPLIFIER (P)
VIDEO AMPLIFIER (T)**

6MB8

5MB8

**Medium Mu Triode and
Sharp Cutoff Pentode**

Construction	Miniature T-6½
Base	Button 9 Pin, E9-1
Basing	.9FA
Outline	6-2
Maximum Diameter	0.875 In.
Maximum Seated Height	1.938 In.
Maximum Overall Height	2.185 In.



**ELECTRICAL DATA
HEATER OPERATION**

	5MB8	6MB8
Heater Voltage	4.5	6.3 Volts
Heater Current	450	400 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 (Shielded)

Triode Section

Grid to Plate	1.4 Pf
Input: g_1 to $(T_k + P_k + Pg_3 + IS + h)$	2.2 Pf
Output: p to $(T_k + P_k + Pg_3 + IS + h)$	1.9 Pf

Pentode Section

Grid No. 1 to Plate (Max.)	0.015 Pf
Input: g_1 to $(k + g_3 + IS + g_2 + h)$	5.5 Pf
Output: p to $(k + g_3 + IS + g_2 + h)$	3.4 Pf

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Plate Voltage (Max.)	280	280 Volts
Grid No. 2 Supply Voltage (Max.)	—	280 Volts
Grid No. 2 Pulse Voltage (Max.) ⁽¹⁾	—	300 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Cathode Current (Max.)	20	20 Ma
Plate Dissipation (Max.)	2.0	2.0 Watts
Grid No. 2 Dissipation (Max.)	—	0.5 Watt
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Maximum Grid No. 1 Circuit Resistance		
Self Bias (Max.)	0.5	0.25 Megohm
Fixed Bias (Max.)	1.0	0.5 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 30 volts DC and peak AC in commercial tube checkers and shorts indicating devices, particularly where mechanical excitation of the tube is employed.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

	Triode Section	Pentode Section
Plate Voltage	125	125 Volts
Grid No. 2 Voltage	—	125 Volts
Grid No. 1 Voltage	0	0 Volt
Cathode Bias Resistor	68	33 Ohms
Plate Current	13	10 Ma
Grid No. 2 Current	—	2.8 Ma