

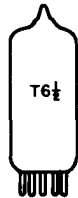
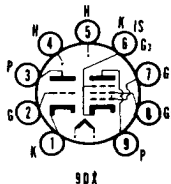
Color Television Type

**VIDEO AMPLIFIER (T)
GENERAL PURPOSE AMPLIFIER (P)**

6LF8

**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**

Heater Voltage.....	6.3 Volts
Heater Current.....	600 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.....	2.2 Pf
Input: g to (h + Tk + Pk, g3, IS).....	3.2 Pf
Output: p to (h + Tk + Pk, g3, IS).....	1.8 Pf

Pentode Section

Grid No. 1 to Plate (Max.).....	0.06 Pf
Input: g1 to (h + Pk, g3, IS + g2).....	10 Pf
Output: p to (h + Pk, g3, IS + g2).....	3.6 Pf

Coupling

Pentode Plate to Triode Plate (Max.).....	0.150 Pf
Pentode Grid No. 1 to Triode Plate (Max.).....	0.008 Pf

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Plate Voltage (Max.).....	330	330 Volts
Grid No. 2 Supply Voltage (Max.).....	—	330 Volts
Grid No. 2 Voltage.....	See Rating Chart (Gen. Info. Sec.)	
Plate Dissipation (Max.).....	1.1	3.75 Watts
Grid No. 2 Dissipation (Up to Ec2 = 165 V) (Max.).....	—	1.1 Watt
Above 165 V.....	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 1 Voltage (Max.).....	4	0 Volts
Negative Grid No. 1 Voltage (Max.).....	55	55 Volts
Grid No. 1 Current.....	8	0 Ma
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.).....	0.5	0.25 Megohm
Self Bias (Max.).....	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

	Triode Section	Pentode Section
Plate Voltage.....	200	40
Grid No. 2 Voltage.....	—	—
Grid No. 1 Voltage.....	-2	3
Plate Current.....	4.0	11
Grid No. 2 Current.....	—	—
Grid No. 1 Current.....	0	2.7
Transconductance.....	4000	4000
Amplification Factor.....	70	40
Plate Resistance (Approx.).....	17,500	10,000
Ec for Ib = 20 µa (Approx.).....	-5	—

INSTANTANEOUS PLATE KNEE CHARACTERISTICS

Eb = 65 V, Ec2 = 150 V, Ec1 = 0 V

Ib = 60 Ma, Ic2 = 20 Ma

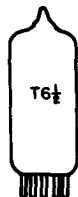
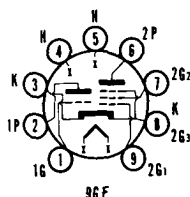
6LJ8

5LJ8, 4LJ8

Color Television Type

VHF OSCILLATOR and MIXER**Medium Mu Triode and Sharp Cutoff Pentode**

Construction Miniature T-6½
 Base Button 9 Pin, E9-1
 Basing 9GF
 Outline 6-2
 Maximum Diameter 0.875 In.
 Maximum Seated Height 1.938 In.
 Maximum Overall Height 2.188 In.

**ELECTRICAL DATA
HEATER OPERATION**

	4LJ8	5LJ8	6LJ8
Heater Voltage.....	4.3	5.6	6.3 Volts
Heater Current.....	600	450	400 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**Triode Section**

Grid to Plate	1.4 Pf
Input: g1 to (k + Pg3 + IS + h)	2.4 Pf
Output: p to (k + Pg3 + IS + h)	2.0 Pf

Pentode Section

Grid No. 1 to Plate (Max.).....	0.015 Pf
Input: g1 to (k + g3 + IS + g2 + h)	5.5 Pf
Output: p to (k + g3 + IS + g2 + h).....	3.4 Pf

RATINGS (Design Maximum Rating System)

	Tri. Sec.	Pent. Sec.
Plate Voltage (Max.)	280	280 Volts
Grid No. 2 Supply Voltage (Max.)	—	280 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 or 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**

	Tri. Sec.	Pent. Sec.
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	12 Ma
Grid No. 2 Current	—	3.5 Ma
Transconductance	8000	13,000 μ mhos
Amplification Factor	40	—
Plate Resistance (Approx.)	5000	125,000 Ohms
E _{c1} for I _b = 30 μ a (Approx.)	-6.5	-4 Volts

NOTE:

(1) Each tube section measured separately and with cathode bias resistor indicated. Section not under test is floating.