

Pentode Section

Grid No. 1 to Plate (Max.).....	0.1 Pf
Input: g1 to (h + k + g2 + g3 + IS).....	11 Pf
Output: p to (h + k + g2 + g3 + IS).....	4.2 Pf

Coupling

Triode Grid to Pentode Plate (Max.)	0.018 Pf
Pentode Grid No. 1 to Triode Plate (Max.)	0.005 Pf
Pentode Plate to Triode Plate (Max.)	0.17 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 (Max.).....	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	—	1.1 Watts
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	0.5	0.25 Megohm
Cathode Bias (Max.)	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	250	200 Volts
Grid No. 2 Voltage	—	150 Volts
Grid No. 1 Voltage	-2	— Volts
Cathode Bias Resistor	—	100 Ohms
Plate Current	2	25 Ma
Grid No. 2 Current	—	5.5 Ma
Transconductance	2700	11,500 μ mhos
Amplification Factor	100	—
Plate Resistance	37,000	60,000 Ohms
Ec1 for Ib = 100 μ a (Approx.).....	—	-10 Volts
Ec1 for Ib = 200 μ a (Approx.).....	-5	— Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS (Pentode Section)

Eb = 60 Volts, Ec2 = 150 Volts and Ec1 = 0 Volts

Ib = 55 Ma and Ic2 = 18 Ma.

6GQ7**19GQ7**

Color Television Type

AM or FM DETECTOR**Triple Diode**

Construction	Miniature T-6½
Base	Button 9 Pin, E9-1
Basing	.9QM
Outline	.6-2
Maximum Diameter	0.875 In.
Maximum Seated Height	1.937 In.
Maximum Overall Height	2.187 In.

ELECTRICAL DATA**HEATER OPERATION**

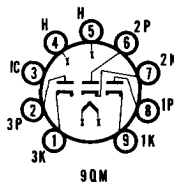
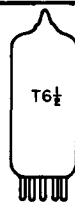
Heater Voltage.....	19GQ7 18.9	6GQ7 6.3 Volts
Heater Current	150	450 Ma
Maximum Heater-Cathode Voltage		
Heater Negative with Respect to Cathode		
Total DC and Peak.....		200 Volts
Heater Positive with Respect to Cathode		
DC		100 Volts
Total DC and Peak.....		200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Plate Input: p to (k + h) (Each Section)	2.05 Pf
Cathode Input: k to (p + h) (Each Section)	3.10 Pf
1p to 2p	0.47 Pf
1p to 3p	0.47 Pf
2p to 3p	0.05 Pf

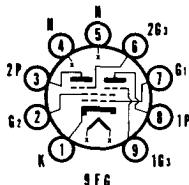
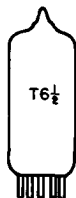
RATINGS (Design Maximum Rating System) (Each Section)

Peak Inverse Plate Voltage (Max.)	330 Volts
AC Plate Voltage (RMS) (Max.)	117 Volts
Peak Plate Current (Max.)	54 Ma
DC Output Current (Max.)	9 Ma
Total Effective Supply Impedance (Min.)	300 Ohms



CHARACTERISTICS AND TYPICAL OPERATION (Each Section)**Half Wave Rectifier**Diode Current at $E_b = 10$ Volts DC..... 60 Ma*Color Television Type***SYNC SEPARATOR/CLIPPER
and AGC TUBE****6GS8****6BU8, 3GS8/3BU8,
4GS8/4BU8****Double Pentode**

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

**ELECTRICAL DATA
HEATER OPERATION**

	3GS8/3BU8	4GS8/4BU8	6BU8 6GS8
Heater Voltage.....	3.15	4.2	6.3 Volts
Heater Current	600	450	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

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 3 to Plate (Each Section)	1.9 Pf
Grid No. 1 to All.....	6.0 Pf
Grid No. 3 (Each Section) to All	3.6 Pf
Plate (Each Section) to All	3.0 Pf
Grid No. 3 (Section 1) to Grid No. 3 (Section 2) (Max.)	0.015 Pf

RATINGS (Design Maximum Rating System)

Plate Voltage (Each Section) (Max.)	300 Volts
Grid No. 2 Voltage (Max.)	150 Volts
Positive DC Grid No. 3 Voltage (Each Section) (Max.)	3.0 Volts
Negative DC Grid No. 3 Voltage (Each Section) (Max.)	50 Volts
Peak Positive Grid No. 3 Voltage (Each Section) (Max.)	50 Volts
Negative DC Grid No. 1 Voltage (Max.)	50 Volts
Plate Dissipation (Each Section) (Max.)	1.1 Watts
Grid No. 2 Dissipation (Max.)	0.75 Watt
DC Cathode Current (Max.)	12 Ma
Grid No. 1 Circuit Resistance (Max.)	0.5 Megohm
Grid No. 3 Circuit Resistance (Each Section) (Max.)	0.5 Megohm

CHARACTERISTICS AND TYPICAL OPERATION**Both Sections Operating**

Plate Voltage (Each Section).....	100	100 Volts
Grid No. 2 Voltage	67.5	67.5 Volts
Grid No. 3 Voltage (Each Section).....	-10	0 Volts
Grid No. 1 Voltage	Note 2	Note 2
Plate Current (Each Section)	—	2.2 Ma
Grid No. 2 Current	6.5	3.3 Ma
Cathode Current	6.6	7.8 Ma

**Each Section Separately with Plate and Grid No. 3
of Opposite Section Grounded**

Plate Voltage	100	100 Volts
Grid No. 2 Voltage	67.5	67.5 Volts
Grid No. 3 Voltage	0	0 Volt
Grid No. 1 Voltage	0	Note 2
Plate Current	—	2.2 Ma
Grid No. 3 Transconductance	—	180 μ mhos
Grid No. 1 Transconductance	1500	11 μ mhos
Grid No. 3 Voltage (Approx.) for $I_b = 100 \mu$ a	—	-4.5 Volts
Grid No. 1 Voltage (Approx.) for $I_b = 100 \mu$ a	—	-2.3 Volts

NOTES:

- (1) Basing 9LW has Internal Shield tied to Cathode.
 Basing 9FG has Internal Shield tied to Grid No. 2.
 (2) Grid Current adjusted for 100μ a DC.