

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	200	55 250 Volts
Grid No. 1 Voltage	—	0 — Volt
Grid No. 2 Voltage	—	125 150 Volts
Cathode Bias Resistor	270	— 56 Ohms
Plate Current	7.6	56 28 Ma
Grid No. 2 Current	—	21 5.6 Ma
Transconductance	6300	— 30,000 μ mhos
Amplification Factor	59	— —
Plate Resistance (Approx.)	9200	— 40,000 Ohms
Ec1 for Ib = 100 μ a (Approx.)	-63	— -5.4 Volts

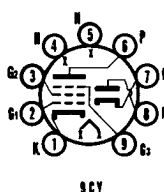
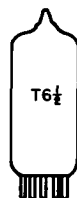
VIDEO DETECTOR
AND IF AMPLIFIER

6AM8A

5AM8

Diode and Sharp Cutoff Pentode

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

ELECTRICAL DATA
HEATER OPERATION

	5AM8 Series	6AM8A Parallel
Heater Voltage	4.7	6.3 Volts
Heater Current	600	450 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 (Shielded)⁽¹⁾

Pentode	
Grid to Plate (Max.)	0.015 Pf
Input	6.0 Pf
Output	3.4 Pf
Diode	
Input: p to (h + k)	2.3 Pf
Cathode to (h + p)	3.0 Pf
Coupling	
Diode Plate to Pentode Plate	0.035 Pf
Diode Plate to Pentode Grid No. 1	0.005 Pf
Diode Cathode to Pentode Plate	0.15 Pf

RATINGS (Design Center Rating System)

Pentode	
Plate Voltage (Max.)	330 Volts
Plate Dissipation (Max.)	3.2 Watts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)
Grid No. 2 Supply Voltage (Max.)	330 Volts
Grid No. 2 Dissipation (Max.)	0.55 Watt
Positive Grid No. 1 Voltage (Max.)	0 Volt
Grid No. 3 Voltage (Max.)	0 Volt
Grid No. 1 Circuit Resistance	
Cathode Bias (Max.)	1.0 Megohm
Fixed Bias (Max.)	0.25 Megohm

Diode

Diode Current for Continuous Operation (Max.)	5.0 Ma
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CHARACTERISTICS AND TYPICAL OPERATION

Pentode	
Plate Voltage	125 Volts
Grid No. 2 Voltage	125 Volts
Cathode Resistor	56 Ohms

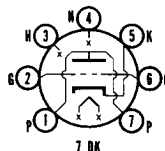
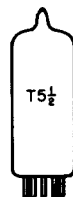
Plate Current	12.5 Ma
Grid No. 2 Current	3.2 Ma
Transconductance	7800 μ mhos
Plate Resistance (Approx.)	0.3 Megohm
Grid No. 1 Voltage for $I_b = 20 \mu$ a	-6 Volts
I_b at $E_c1 = -3$ Volts, $R_k = 0$	2.0 Ma
Diode	
Diode Plate Voltage for Diode Current of 50 Ma ⁽²⁾	10 Volts

NOTES:

- (1) Shield No. 315.
- (2) Test condition only. Operating conditions must not exceed the design center rating.

6AN4**UHF MIXER OR AMPLIFIER****High Mu Triode**

Construction	Miniature T-5½
Base	Button 7 Pin
Basing	7DK
Outline	5-1
Maximum Diameter	0.750 In.
Maximum Seated Height	1.500 In.
Maximum Overall Height	1.750 In.

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

Heater Voltage.....	6.3 Volts
Heater Current	225 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

	Shielded ⁽¹⁾	Unshielded
Grid to Plate	1.7	1.7 Pf
Input	3.3	2.9 Pf
Output	1.8	0.25 Pf
Heater to Cathode ⁽²⁾	2.9	3.0 Pf
Grid to Cathode ⁽²⁾	2.6	2.6 Pf
Plate to Cathode ⁽²⁾	0.18	0.20 Pf
Grounded Grid Operation		
Input	5.7	5.5 Pf
Output	3.4	1.8 Pf

RATINGS (Design Center Rating System)

Plate Voltage (Max.)	300 Volts
Plate Dissipation (Max.)	4 Watts
Cathode Current (Max.)	30 Ma
Grid Circuit Resistance	
Fixed Bias (Max.)	0.1 Megohm
Cathode Bias (Max.)	0.5 Megohm

CHARACTERISTICS AND TYPICAL OPERATION**Class A Amplifier**

Plate Voltage	200 Volts
Cathode Bias Resistor	100 Ohms
Plate Current	13 Ma
Transconductance	10,000 μ mhos
Amplification Factor	70
Grid Voltage for $I_b = 20 \mu$ a	-7 Volts

Mixer Service

Plate Voltage	125 Volts
Cathode Bias Resistor	270 Ohms
Plate Current	7 Ma
Oscillator Injection Voltage (RMS).....	1.4 Volts
Conversion Conductance	2900 μ mhos

NOTES:

- (1) Shield No. 316.
- (2) Measured between specified elements only. When external shield is used, it shall be grounded.