

Color Television Type

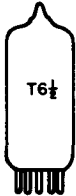
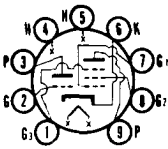
VHF OSCILLATOR and MIXER

6X8A

5X8, 9X8, 19X8

Medium Mu Triode and Sharp Cutoff Pentode

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



ELECTRICAL DATA

HEATER OPERATION

	19X8	9X8	5X8	6X8A
Heater Voltage.....	18.9	9.5	4.7	6.3 Volts
Heater Current	150	300	600	450 Ma
Heater Warm-up Time	—	11	11	11 Seconds
Maximum Heater-Cathode Voltage				
Heater Negative with Respect to Cathode				
Total DC and Peak	100	200	200	100 Volts
Heater Positive with Respect to Cathode				
DC	100	100	100	100 Volts
Total DC and Peak	100	200	200	100 Volts

DIRECT INTERELECTRODE CAPACITANCES

Triode Section

	Shielded ⁽¹⁾	Unshielded
Grid to Plate	1.4	1.4 Pf
Input	2.6	2.0 Pf
Output	1.0	0.5 Pf

Pentode Section

Grid No. 1 to Plate (Max.)	0.06	0.09 Pf
Input	4.5	4.3 Pf
Output	1.4	0.7 Pf

Coupling

Pentode Grid No. 1 to Triode Plate (Max.)	0.035	0.045 Pf
Pentode Plate to Triode Plate (Max.)	0.008	0.040 Pf

RATINGS (Design Center Rating System)

Converter Service

	Triode Section as Osc.	Pentode Section as Mixer
Plate Voltage (Max.)	250	250 Volts
Grid No. 2 Supply Voltage (Max.)	—	250 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Grid No. 1 Voltage		
Negative Bias (Max.)	40	40 Volts
Positive Bias (Max.)	0	0 Volt
Plate Dissipation (Max.)	1.5	2.0 Watts
Grid No. 2 Input (Max.)	—	0.4 Watt
Grid No. 1 Input (Max.)	0.5	— Watt
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	0.1	0.1 Megohm
Cathode Bias (Max.)	0.5	0.5 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section as 250 MHz Osc.	Pentode Section as Mixer ⁽²⁾
Plate Voltage	150	150 Volts
Grid No. 3	Connected to Cathode at Socket	
Grid No. 2 Voltage	—	150 Volts
Mixer Grid No. 1 Supply Voltage	—	—3.5 Volts
Oscillator Voltage at Mixer Grid No. 1 (RMS)	—	2.6 Volts
Mixer Grid No. 1 Circuit Resistance	—	120,000 Ohms
Oscillator Grid Resistor	2700	— Ohms
Conversion Transconductance	—	2100 μ mhos
Plate Current	13	6.0 Ma
Grid No. 2 Current	—	1.8 Ma
Grid No. 1 Current	3.6	— Ma
Grid No. 1 Current	—	2.0 μ a
Oscillator Power Output (Approx.)	0.5 ⁽³⁾	— Watt