

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	90	250 Volts
Grid No. 1 Voltage	0	-8 Volts
Plate Current	10	9 Ma
Transconductance	3000	2600 μ mhos
Amplification Factor	20	20
Plate Resistance (Approx.)	6700	7700 Ohms
Grid Voltage for $I_b = 10 \mu$ a (Approx.)	-7	-18 Volts
Plate Current at $E_c = -12.5$ Vdc.	—	1.3 Ma

NOTES:

- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) In stages operating with grid leak bias, an adequate bias resistor or other suitable means is required to protect the tube in the absence of excitation.

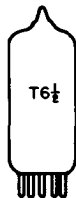
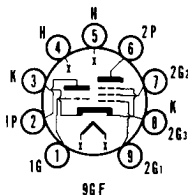
Color Television Type

VHF OSCILLATOR and MIXER**6CG8A**

5CG8

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 1.937 In.
 Maximum Overall Height 2.187 In.

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

	5CG8	6CG8A
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⁾	Unshielded
Triode Section		
Grid to Plate	1.5	1.5 Pf
Input: g to (h + k)	2.4	2.0 Pf
Output: p to (h + k)	1.0	0.5 Pf
Pentode Section		
Grid No. 1 to Plate (Max.).....	0.02	0.04 Pf
Input: g1 to (k + g3 + g2 + h)	4.8	4.6 Pf
Output: p to (k + g3 + g2 + h)	1.6	0.9 Pf
Coupling		
Pentode Grid No. 1 to Triode Plate (Max.)	0.04	0.05 Pf
Pentode Plate to Triode Plate (Max.)	0.008	0.05 Pf
Heater to Cathode	5.5 ⁽²⁾	5.5 Pf

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Converter Service		
Plate Voltage (Max.)	275	275 Volts
Grid No. 2 Supply Voltage (Max.)	—	275 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Plate Dissipation (Max.)	1.7	2.3 Watts

Grid No. 2 Dissipation:

For Grid No. 2 Voltages up to 137.5 Volts	0.45 Watt
For Grid No. 2 Voltages between 137.5 and 275 Volts	See Rating Chart (Gen. Info. Sec.)
Grid No. 1 Input	0.5 Watt Max.
Positive Grid No. 1 Voltage (Max.)	0 Volt
Grid No. 1 Circuit Resistance	
Fixed Bias (Max.)	0.1 Megohm
Self Bias (Max.)	0.5 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	125	125 Volts
Grid No. 2 Voltage	—	125 Volts
Cathode Bias Resistor	100	200 Ohms
Plate Current	8.5	7.7 Ma
Grid No. 2 Current	—	1.6 Ma
Transconductance	6500	5500 μ mhos
Amplification Factor	40	—
Plate Resistance (Approx.)	6000	300,000 Ohms
Ec1 for Ib = 10 μ a (Approx.)	-7	-6.5 Volts

NOTES:

- (1) Shield No. 315 connected to cathode.
- (2) Shield No. 315 connected to ground.

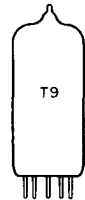
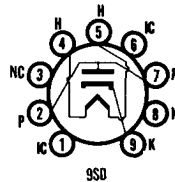
6CH3

Color Television Type

DAMPER

Heater-Cathode Diode

Construction	Novar T-9
Base	Button 9 Pin, E9-75
Basing	9SD
Outline	9-87
Maximum Diameter	1.188 In.
Maximum Seated Height	3.330 In.
Maximum Overall Height	3.710 In.



ELECTRICAL DATA

HEATER OPERATION

Heater Voltage	6.3 Volts
Heater Current	2500 Ma
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	
DC	900 Volts
Total DC and Peak	5000 Volts
Heater Positive with Respect to Cathode	
DC	100 Volts
Total DC and Peak	300 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Cathode to Plate and Heater	17.0 Pf
Plate to Cathode and Heater	13.0 Pf
Heater to Cathode	4.4 Pf

RATINGS (Design Maximum Rating System)

Damper Service⁽¹⁾

Peak Inverse Plate Voltage (Max.)	5000 Volts
Plate Dissipation (Max.)	11 Watts
Steady State Peak Plate Current (Max.)	1500 Ma
DC Plate Current (Max.)	350 Ma

CHARACTERISTICS AND TYPICAL OPERATION

Tube Voltage Drop for Ib = 680 Ma	20 Volts
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