

Total Harmonic Distortion	8 Percent
Maximum Signal Power Output.....	2.8 Watts
4 MHz Bandwidth Video Amplifier	
Plate Supply Voltage.....	300 Volts
Grid No. 3 Voltage.....	Connected to Cathode at Socket
Grid No. 2 Supply Voltage.....	300 Volts
Grid No. 1 Bias Voltage	-2 Volts
Peak-to-Peak Signal Voltage Grid No. 1	3 Volts
Grid No. 2 Resistor	24,000 Ohms
Grid No. 1 Resistor	0.1 Megohm
Plate Load Resistor.....	3900 Ohms
Zero Signal Plate Current	30 Ma
Zero Signal Grid No. 2 Current	7.0 Ma
Peak-to-Peak Voltage Output	132 Volts

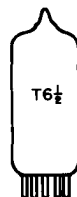
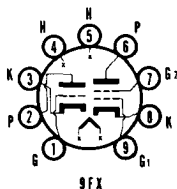
Color Television Type

VHF OSCILLATOR and MIXER**6CL8A**

5CL8A, 19CL8A

**Medium Mu Triode and
Semi-Remote Cutoff Tetrode**

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

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

	19CL8A	5CL8A	6CL8A
Heater Voltage.....	18.9	4.7	6.3 Volts
Heater Current	150	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	1.8	1.8 Pf
Input: g to (h + k)	2.7	2.7 Pf
Output: p to (h + k)	1.2	0.4 Pf
Tetrode Section		
Grid No. 1 to Plate (Max.).....	0.010	0.020 Pf
Input: g1 to (h + k + g2).....	5.0	5.0 Pf
Output: p to (h + k + g2).....	3.4	2.4 Pf

RATINGS (Design Center Rating System)

	Triode Section	Tetrode Section
Plate Voltage (Max.)	300	300 Volts
Grid No. 2 Supply Voltage (Max)	—	300 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Plate Dissipation (Max.)	2.7	2.8 Watts
Grid No. 2 Dissipation (Max.)	—	0.5 Watts
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
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

	Triode Section	Tetrode Section
Class A1 Amplifier		
Plate Voltage	125	125 Volts
Grid No. 2 Voltage	—	125 Volts

	Triode Section	Tetrode Section
Grid No. 1 Voltage	0	-1.0 Volt
Cathode Bias Resistor	56	— Ohms
Plate Current	15	12 Ma
Grid No. 2 Current	—	4.0 Ma
Transconductance	8000	6400 μ mhos
Amplification Factor	40	—
Plate Resistance	5000	100K Ohms
Grid No. 1 Voltage for $I_b = 10 \mu$ a (Approx.)	-9	-10 Volts

NOTE:

(1) Shield No. 315.

6CM3

25CM3, 34CM3

DAMPER**Heater-Cathode Diode**

Construction Novar T-9
 Base E9-89
 Basing 9HP
 Outline

Maximum Diameter 1.188 In.
 Maximum Seated Height 2.625 In.
 Maximum Overall Height 3.005 In.

ELECTRICAL DATA**HEATER OPERATION**

Heater Voltage 6.3
 Heater Current 2.4
 Heater Warm-up Time—
 Maximum Heater-Cathode Voltage

Heater Negative with Respect to Cathode

DC 900 Volts

Total DC and Peak 5500 Volts

Heater Positive with Respect to Cathode

DC 100 Volts

Total DC and Peak 300 Volts

DIRECT INTERELECTRODE CAPACITANCES (Without Shield)

Cathode to Plate and Heater.....18.0 pf

Plate to Cathode and Heater.....20.0 pf

Heater to Cathode 4.0 pf

RATINGS (Design Maximum Rating System)**Damper Service⁽¹⁾**

Peak Inverse Plate Voltage (Max.) 5500 Volts

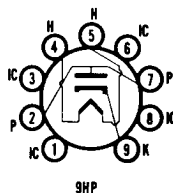
Plate Dissipation (Max.) 12 Watts

Steady State Peak Plate Current (Max.) 1700 Ma

DC Plate Current (Max.) 400 Ma

AVERAGE CHARACTERISTICSTube Voltage Drop ($I_b = 350$ Ma) 10 Volts**NOTE:**

(1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice of Television Broadcasting Stations, Federal Communications Commission," the duty cycle of the voltage pulse is not to exceed 15% of one horizontal scanning cycle.

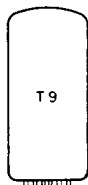


6CM3

25CM3

34CM3

33.5 Volts
 0.450 Amp.
 11 Seconds

**6CM6**

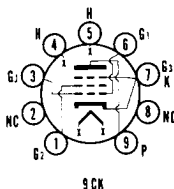
5CM6, 12CM6

Color Television Type

**AUDIO POWER AMPLIFIER or
VERTICAL DEFLECTION AMPLIFIER****Beam Power Pentode**

Construction Miniature T-6½
 Base Button 9 Pin, E9-1
 Basing 9CK
 Outline

Maximum Diameter 0.875 In.
 Maximum Seated Height 2.375 In.
 Maximum Overall Height 2.625 In.



9CK

