

Plate Dissipation (Max.) ⁽³⁾	12 Watts
Peak Negative Grid No. 1 Voltage (Max.)	250 Volts
Average Cathode Current (Max.)	110 Ma
Peak Cathode Current (Max.)	240 Ma
Grid No. 1 Circuit Resistance	
Cathode Bias (Max.)	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	170 Volts
Grid No. 2 Voltage	170 Volts
Grid No. 1 Voltage	-12.5 Volts
Plate Current	70 Ma
Grid No. 2 Current	3.5 Ma
Transconductance	11,000 μ mhos
Amplification Factor (g1 to g2)	8
Plate Resistance	26,000 Ohms

NOTES:

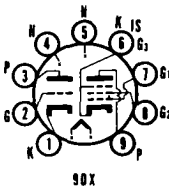
- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) Grid No. 2 connected to plate.
- (3) In stages operating with grid leak bias, an adequate cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.

LOW FREQUENCY OSC. or AMP. (T)
VIDEO AMPLIFIER (P)

6CX8
8CX8

Medium Mu Triode and
Sharp Cutoff Pentode

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



ELECTRICAL DATA

HEATER OPERATION

	8CX8	6CX8
Heater Voltage	8.0	6.3 Volts
Heater Current	600	750 Ma
Heater Warm-up Time	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)

Triode Section

Grid to Plate	4.4 Pf
Input	2.2 Pf
Output	0.38 Pf

Pentode Section

Grid No. 1 to Plate	0.06 Pf
Input	9.0 Pf
Output	4.4 Pf

Coupling

Pentode Grid No. 1 to Triode Plate (Max.)	0.005 Pf
Pentode Plate to Triode Grid (Max.)	0.018 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	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Plate Dissipation (Max.)	2.0	5.0 Watts
Grid No. 2 Dissipation (Max.)	—	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

Class A1 Amplifier

	Triode Section	Pentode Section
Plate Voltage	150	200 Volts
Grid No. 2 Voltage	—	125 Volts
Cathode Bias Resistor	150	68 Ohms
Plate Current	9.2	24 Ma
Grid No. 2 Current	—	5.2 Ma
Transconductance	4600	10,000 μ mhos
Amplification Factor	40	—
Plate Resistance (Approx.)	8700	70,000 Ohms
Grid No. 1 Voltage for $I_b = 100 \mu a$ (Approx.)	-5.0	-8.5 Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS

$E_b = 40 \text{ V}$, $E_{c2} = 125 \text{ V}$, $E_{c1} = 0 \text{ V}$
 $I_b = 40 \text{ Ma}$, $I_{c2} = 15.5 \text{ Ma}$

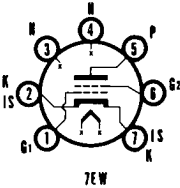
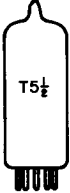
6CY5

2CY5, 3CY5, 4CY5

VHF AMPLIFIER

Sharp Cutoff Tetrode

Construction Miniature T-5½
Base Button 7 Pin, E7-1
Basing..... 7EW
Outline 5-2
 Maximum Diameter 0.750 In.
 Maximum Seated Height 1.875 In.
 Maximum Overall Height 2.125 in.



ELECTRICAL DATA

HEATER OPERATION

	2CY5	3CY5	4CY5	6CY5
Heater Voltage	2.4	2.9	4.5	6.3
Heater Current	600	450	300	200 Ma
Heater Warm-up Time	11	11	11	— Seconds
Maximum Heater-Cathode Voltage				100 Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)⁽¹⁾

Grid No. 1 to Plate	0.03 Pf
Input	4.5 Pf
Output	3.0 Pf

RATINGS (Design Maximum Rating System)

Plate Voltage (Max.)	180 Volts
Grid No. 2 Supply Voltage (Max.)	180 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)
Plate Dissipation (Max.)	2.0 Watts
Grid No. 2 Dissipation (Max.)	0.5 Watt
Positive Grid No. 1 Voltage (Max.)	0 Volt
Cathode Current (Max.)	20 Ma
Grid Circuit Resistance (Max.)	0.5 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	125 Volts
Grid No. 2 Voltage	80 Volts
Grid No. 1 Voltage	-1 Volt
Plate Current	10 Ma
Grid No. 2 Current	1.5 Ma
Transconductance	8000 μ mhos
Plate Resistance	0.1 Megohm
Grid No. 1 Voltage for $I_b = 20 \mu a$	-6 Volts

NOTE:

(1) Shield No. 316 connected to cathode.