

Heater Warm-up Time	—	11	— Seconds
Maximum Heater-Cathode Voltage			100 Volts
DIRECT INTERELECTRODE CAPACITANCES (Shielded)			
Grid to Plate			0.92 Pf
Input: g to (h + k + Shell)			4.3 Pf
Output: p to (h + k + Shell)			1.8 Pf
Heater to Cathode			1.3 Pf
Plate to Cathode			0.18 Pf
RATINGS (Design Maximum Rating System)			
Plate Supply Voltage (Max.)			300 Volts
Plate Voltage (Max.)			135 Volts
Plate Dissipation (Max.)			1.0 Watt
DC Cathode Current (Max.)			15 Ma
Negative Grid Voltage (Max.)			55 Volts
Grid Circuit Resistance			
Self Bias (Max.)			2.2 Megohms
Fixed Bias (Max.)			0.5 Megohms

CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier**

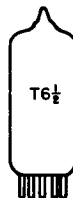
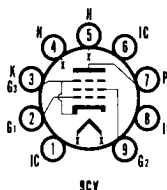
Plate Voltage	70	110 Volts
Grid Resistor	47,000	— Ohms
Cathode Resistor	—	130 Ohms
Plate Current	7.2	7 Ma
Transconductance	12,500	9800 μ mhos
Amplification Factor	68	65
Plate Resistance (Approx.)	5440	6600 Ohms
Ec for Ib = 10 μ a (Approx.)	—	-4 Volts

6CW5/EL86**8CW5A, 10CW5/LL86
15CW5/PL84, 30CW5**

Color Television Type

AUDIO POWER AMPLIFIER**Beam Pentode**

Construction	Miniature T-6½
Base	Button 9 Pin, E9-1
Biasing	.9CV
Outline	6-4
Maximum Diameter	0.875 In.
Maximum Seated Height	2.813 In.
Maximum Overall Height	3.063 In.

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

	30CW5	15CW5/ PL84	10CW5/ LL86	8CW5A	6CW5/EL86
Heater Voltage	30	15	10.6	8.0	6.3 Volts
Heater Current	150	300	450	600	760 Ma
Heater Warm-up Time	—	—	11	11	— Seconds
Maximum Heater-Cathode Voltage					
Heater Negative with Respect to Cathode					
DC					220 Volts
Total DC and Peak					330 Volts
Heater Positive with Respect to Cathode					
DC					220 Volts
Total DC and Peak					330 Volts

DIRECT INTERELECTRODE CAPACITANCES

Grid No. 1 to All Other Electrodes Except Plate	1.3 Pf
Plate to All Other Electrodes Except Grid No. 1	6.8 Pf
Plate to Grid No. 1 (Max.)	0.6 Pf
Grid No. 1 to Heater (Max.)	0.25 Pf

RATINGS (Design Maximum Rating System)**Class A1 Amplifier**

Plate Voltage (Max.)	275 Volts
Grid No. 2 Voltage (Max.)	220 Volts
Plate Dissipation (Max.)	14 Watts
Grid No. 2 Dissipation (Max.)	2.1 Watts
Grid No. 1 Circuit Resistance	
Fixed Bias (Max.)	0.1 Megohm

Vertical Deflection Amplifier⁽¹⁾—Triode Connected⁽²⁾

Plate Voltage (Max.)	275 Volts
Peak Positive Plate Voltage (Abs. Max.)	2200 Volts

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:

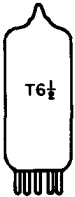
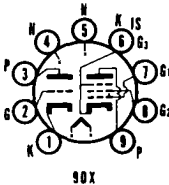
- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) Grid No. 2 connected to plate.
- (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