

RATINGS (Design Center Rating System)

	Triode Section	Pentode Section
Plate Voltage (Max.)	330	330 Volts
Grid No. 2 Supply Voltage (Max.)	—	330 Volts
Grid No. 2 Voltage (Max.)	See Rating Chart (Gen. Info. Sec.)	
Plate Dissipation (Max.)	2.8	3.3 Watts
Grid No. 2 Dissipation (Max.)	—	1.0 Watt
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

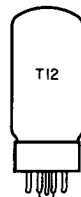
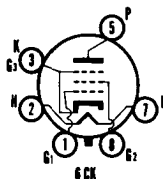
CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Class A1 Amplifier		
Plate Voltage	150	200 Volts
Grid No. 2 Voltage	—	125 Volts
Cathode Bias Resistor	150	82 Ohms
Plate Current	9.5	17 Ma
Grid No. 2 Current	—	3.4 Ma
Transconductance	5300	8000 μ mhos
Amplification Factor	43	—
Plate Resistance (Approx.)	8100	100,000 Ohms
Grid No. 1 Voltage (Approx.) for $I_b = 100$ ma	-6.5	-7.5 Volts dc

6AV5GA**12AV5GA, 17AV5GA,
25AV5GA***Color Television Type***HORIZONTAL DEFLECTION
AMPLIFIER****Beam Power Pentode**

Construction Octal T-11 or T-12
 Base.....Octal 6 Pin, B6-112 or B6-120
 Basing 6CK
 Outline

 Maximum Diameter 1.563 In.
 Maximum Seated Height 3.688 In.
 Maximum Overall Height 4.250 In.

**ELECTRICAL DATA
HEATER OPERATION**

	25AV5GA	17AV5GA	12AV5GA	6AV5GA
Heater Voltage.....	25	16.8	12.6	6.3 Volts
Heater Current	300	450	600	1200 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 (Unshielded)

Grid to Plate	0.5 Pf
Input	14 Pf
Output	7.0 Pf

RATINGS (Design Center Rating System)**Horizontal Deflection Amplifier⁽¹⁾**

DC Plate Supply Voltage (Boost + DC Power Supply) (Max.)	550 Volts
Peak Positive Plate Voltage (Abs. Max.)	5500 Volts
Peak Negative Plate Voltage (Max.)	1250 Volts
DC Grid No. 2 Voltage (Max.)	175 Volts
Peak Negative Grid No. 1 Voltage (Max.)	300 Volts
Plate Dissipation (Max.) ⁽²⁾	11 Watts
Grid No. 2 Dissipation (Max.)	2.5 Watts
Average Cathode Current (Max.)	110 Ma
Peak Cathode Current (Max.)	400 Ma
Grid No. 1 Circuit Resistance (Max.)	0.47 Megohm
Bulb Temperature (At Hottest Point) (Max.)	210 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	250 Volts
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Grid No. 2 Voltage	150 Volts
Grid No. 1 Voltage	-22.5 Volts
Plate Current	57 Ma
Grid No. 2 Current	2.1 Ma
Plate Resistance (Approx.)	14,500 Ohms
Transconductance	5900 μ mhos
Triode Amplification Factor ⁽¹⁾	4.3
Grid No. 1 Voltage (Approx.) for $I_b = 1$ Ma	-43 Volts
INSTANTANEOUS PLATE KNEE VALUES	
$E_b = 60$ V, $E_{c2} = 150$ V, and $E_{c1} = 0$ V;	
$I_b = 260$ Ma; and $I_{c2} = 26$ 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 cathode bias resistor or other suitable means is required to protect the tube in the absence of excitation.
- (3) Triode connection (screen tied to plate) with $E_b = E_{c2} = 150$ Volts and $E_{c1} = -22.5$ Volts.

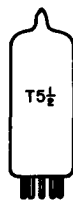
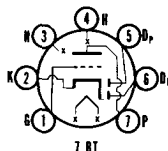
Color Television Type

DETECTOR and AF AMPLIFIER**6AV6**

3AV6, 4AV6, 12AV6

Double Diode and High Mu Triode

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

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

	3AV6	4AV6	12AV6	6AV6
Heater Voltage.....	3.15	4.2	12.6	6.3 Volts
Heater Current	600	450	150	300 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 Grid to Plate.....	2.0	2.0 Pf
Triode Input	2.2	2.2 Pf
Triode Output.....	1.2	0.8 Pf
Grid to Diode No. 2 Plate ⁽²⁾ (Max.)	0.04	0.04 Pf

RATINGS (Design Maximum Rating System)**Triode**

Plate Voltage (Max.)	330 Volts
Plate Dissipation (Max.)	0.55 Watt
Positive Grid Voltage (Max.)	0 Volt

Diode

Diode Plate Current Each Diode	1.0 Ma
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CHARACTERISTICS AND TYPICAL OPERATION**Triode****Class A1 Amplifier**

Plate Voltage	100	250 Volts
Grid Voltage	-1	-2 Volt
Plate Current	0.5	1.2 Ma
Plate Resistance.....	80,000	62,500 Ohms
Transconductance	1250	1600 μ mhos
Amplification Factor	100	100

Diode (Each Section)

Tube Voltage Drop for $I_b = 1.2$ Ma.....	10 Volts
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NOTES:

- (1) Shield No. 316 connected to cathode.
- (2) Diode plate No. 2 connects to Pin No. 5. Diode plate No. 1 connects to Pin No. 6.