

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

Plate Voltage (Max.)	275 Volts
Peak Positive Plate Voltage (Abs. Max.)	1100 Volts
Plate Dissipation (Max.) ⁽³⁾	10 Watts
Peak Negative Grid No. 1 Voltage (Max.)	275 Volts
Average Cathode Current (Max.)	40 Ma
Peak Cathode Current (Max.)	115 Ma
Grid No. 1 Circuit Resistance	
Cathode Bias (Max.)	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Conn.	Pentode Conn.
Class A1 Amplifier		
Plate Voltage	250	180
Grid No. 2 Voltage	—	180
Grid No. 1 Voltage	-12.5	-8.5
Peak AF Grid No. 1 Voltage	—	8.5
Zero-Signal Plate Current	49.5	29
Maximum Signal Plate Current	—	30
Zero-Signal Grid No. 2 Current	—	3
Maximum Signal Grid No. 2 Current	—	4
Plate Resistance (Approx.)	1970	58,000
Transconductance	4800	3700
Load Resistance	—	5500
Maximum Signal Power Output	—	2.0
Total Harmonic Distortion (Approx.)	—	8
Ec1 for Ib = 0.5 Ma (Approx.)	-37	—

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.

6AQ6**AF AMPLIFIER AND DETECTOR****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**

Heater Voltage	6.3 Volts
Heater Current	150 Ma
Maximum Heater Cathode Voltage	90 Volts

DIRECT INTERELECTRODE CAPACITANCES (Shielded)⁽¹⁾

Grid to Plate	1.8 Pf
Input	1.7 Pf
Output	1.5 Pf

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

Plate Voltage (Max.)	300 Volts
Positive Grid No. 1 Voltage (Max.)	0 Volt

Diode

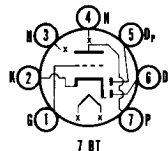
Diode Operating Current Per Plate (Max.)	0.9 Ma
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CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier**

Plate Voltage	100	250 Volts
Grid No. 1 Voltage ⁽²⁾	-1	-3 Volts
Plate Resistance (Approx.)	61,000	58,000 Ohms
Transconductance	1150	1200 μmhos
Plate Current	0.8	1.0 Ma

NOTES:

- (1) Shield No. 316 connected to cathode.
- (2) Diode biasing of the triode section is not recommended.



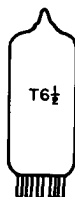
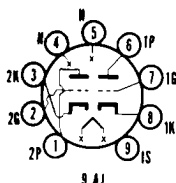
Color Television Type
RF AMPLIFIER AND MIXER

6AQ8/ECC85

9AQ8

High Mu Twin Triode

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

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

	9AQ8	6AQ8/ECC85
Heater Voltage.....	9.0	6.3 Volts
Heater Current.....	300	435 Ma
Maximum Heater-Cathode Voltage.....	90	90 Volts

DIRECT INTERELECTRODE CAPACITANCES

	Section No. 1	Section No. 2
Grid to Plate	1.5	1.5 Pf
Input: g to (k + h + IS)	3.0	3.0 Pf
Output: p to (k + h + IS)	1.2	1.2 Pf
RATINGS (Design Center Rating System) (Each Section)		
Plate Voltage (Max.)		300 Volts
Plate Dissipation (Max.)		2.5 Watts
Cathode Current (Max.)		15 Ma
Negative Grid Voltage (Max.)		100 Volts
Grid Circuit Resistance (Max.)		1.0 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	R-F Amp	Autodyne Osc/Mixer
Plate Supply Voltage.....	— 250	250 Volts
Plate Dropping Resistor	— 1800	12,000 Ohms
Plate Voltage	250 230	— Volts
Grid Voltage	-2.3 -2.0	— Volts
Cathode Resistor	— 200	— Ohms
Grid Leak Resistor	— —	1.0 Megohms
Oscillator Voltage (RMS).....	— —	3 Volts
Plate Current	10 10	5.2 Ma
Transconductance	5900 6000	— μ mhos
Conversion Transconductance	— —	2300 μ mhos
Amplification Factor	57 —	—
Plate Resistance.....	— 9700	22,000 Ohms
Input Resistance at 100 MHz	— 6000	15,000 Ohms
Equivalent Noise Resistance	— 500	— Ohms

NOTES:

- (1) Section No. 1 connects to Pins 6, 7, and 8.
- (2) An internal shield is connected to Pin No. 9 to provide isolation between the two sections.

IF AMPLIFIER**6AR11**

8AR11, 11AR11

Twin Pentode

Construction..... Compactron T-9
Base Button 12 Pin, E12-70
Basing 12DM
Outline 9-58
Maximum Diameter 1.188 In.
Maximum Seated Height 2.000 In.
Maximum Overall Height 2.375 In.

