RATINGS (Design Maximum Rating System)
Horizontal Deflection Amplifier(1)

DC Plate Supply Voltage (Boost + DC Power Supply) (Max.)	900 Volts
Peak Positive Pulse Plate Voltage (Max.)	7000 Volts
Peak Negative Pulse Plate Voltage (Max.)	1500 Volts
Grid No. 2 Voltage (Max.)	175 Volts
Peak Negative Grid No. 1 Voltage (Max.)	200 Volts
Plate Dissipation (Max.)(2)	24 Watts
Grid No. 2 Dissipation (Max.)	3.2 Watts
Average Cathode Current (Max.)	285 Ma
Peak Cathode Current (Max.)	1000 Ma
Grid No. 1 Circuit Resistance (Max.)	0.47 Megohm
Temperature (At Hottest Point) (Max.)	240 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	175 Volts
Grid No. 2 Voltage	125 Volts
Grid No. 1 Voltage	–25 Volts
Plate Current	110 Ma
Grid No. 2 Current	5 Ma
Transconductance	10,500 μmhos
Plate Resistance (Approx.)	5500 Ohms
Amplification Factor(3)	3.3
Ec1 for Ib = 1.0 Ma	–75 Volts

INSTANTANEOUS PLATE KNEE VALUES
Eb = 70 V, Ec2 = 125 V, and Ec1 = 0 V
Ib = 550 Ma, and Ic2 = 42 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 connected with Eb and Ec2 = 125 V and Ec1 = –25 V.

Color Television Type

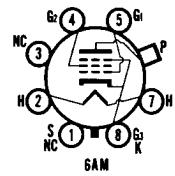
HORIZONTAL DEFLECTION AMPLIFIER

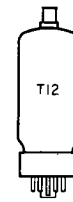
6DQ6B/6GW6

12DQ6B/12GW6
17DQ6B/17GW6

Beam Power Pentode

Construction .....Octal T-12
Base .....5, 6 or 7 Pin, B5-190, B6-122
B6-148, B7-111 or B7-119
Top Cap .....C1-2 or C1-3
Basing 6AM
Outline 12-19
Maximum Diameter .....1.563 In.
Maximum Seated Height .....3.688 In.
Maximum Overall Height .....4.250 In.





ELECTRICAL DATA

HEATER OPERATION

	17DQ6B/ 17GW6	12DQ6B/ 12GW6	6DQ6B/ 6GW6
Heater Voltage	16.8	12.6	6.3 Volts
Heater Current	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 No. 1 to Plate	0.5 Pf
Input	15.0 Pf
Output	7.0 Pf

RATINGS (Design Maximum Rating System)
Horizontal Deflection Amplifier(1)

DC Plate Supply Voltage (Boost + DC Power Supply) (Max.)	770 Volts
Peak Positive Pulse Plate Voltage	6500 Volts
Peak Negative Pulse Plate Voltage (Max.)	1500 Volts
Grid No. 2 Voltage (Max.)	220 Volts
Grid No. 1 Voltage (Max.)	–55 Volts

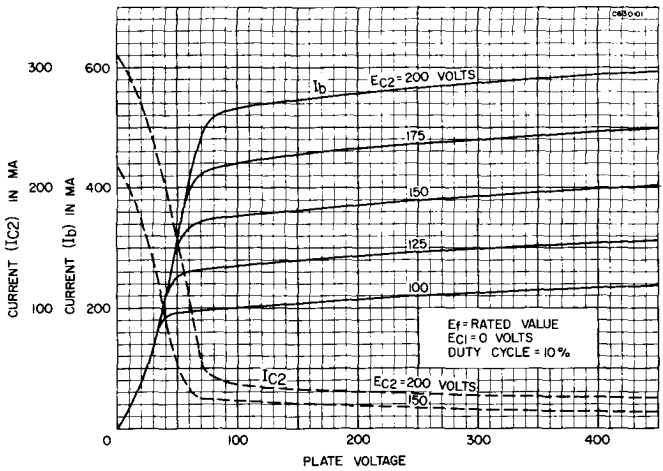
Peak Negative Grid No. 1 Voltage (Max.)	330 Volts
Plate Dissipation (Max.)(2)	18 Watts
Grid No. 2 Input (Max.)	3.6 Watts
Average Cathode Current (Max.)	175 Ma
Peak Cathode Current (Max.)	610 Ma
Grid No. 1 Circuit Resistance (Max.)	1.0 Megohm
Bulb Temperature (At Hottest Point) (Max.)	220 °C
CHARACTERISTICS AND TYPICAL OPERATION	
Plate Voltage	250 Volts
Grid No. 2 Voltage	150 Volts
Grid No. 1 Voltage	–22.5 Volts
Plate Current	65 Ma
Grid No. 2 Current	1.8 Ma
Transconductance	7300 μmhos
Amplification Factor(3)	4.4
Plate Resistance	18,000 Ohms
Ec1 for Ib = 1.0 Ma (Approx.)	–42 Volts

INSTANTANEOUS PLATE KNEE VALUES
Eb = 60 V, Ec2 = 150 V and Ec1 = 0 V
Ib = 345 Ma, and Ic2 = 27 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 bias resistor or other suitable means is required to protect the tube in the absence of excitation.
(3) Amplification factor with tube operating as a triode with 150 volts on the plate and Grid No. 2 and –22.5 volts on Grid No. 1.

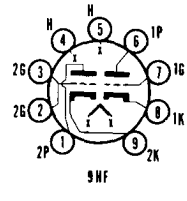
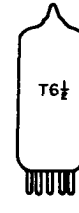
AVERAGE PLATE CHARACTERISTICS



6DR7

10DR7, 13DR7

VERTICAL DEFLECTION OSCILLATOR and AMPLIFIER

Double Dissimilar Triode

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