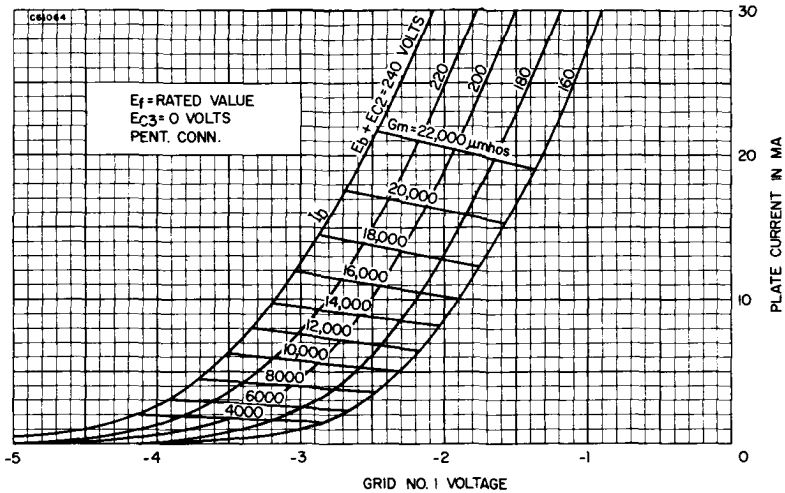


Grid No. 2 Voltage	200 Volts
Grid No. 1 Voltage	-2.5 Volts
Plate Current	10 Ma
Grid No. 2 Current	4.1 Ma
Transconductance	15,000 μ mhos
Amplification Factor (G2 to G1)	60
Plate Resistance (Approx.)	0.35 Megohm
Grid No. 1 Impedance at 40 MHz ⁽¹⁾	30,000 Ohms

NOTE:

(1) Input damping of tube and typical ceramic socket with both cathode leads tied directly to ground is about 10,000 Ohms.

AVERAGE TRANSFER CHARACTERISTICS

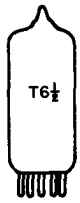
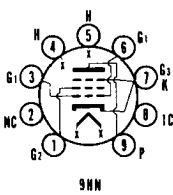


6EM5
8EM5

**VERTICAL DEFLECTION
AMPLIFIER**

Beam Power Pentode

Construction Miniature T-6½
Base Button 9 Pin, E9-1
Basing 9HN
Outline 6-4
Maximum Diameter 0.875 In.
Maximum Seated Height 2.812 In.
Maximum Overall Height 3.062 In.



**ELECTRICAL DATA
HEATER OPERATION**

Heater Voltage	8.4
Heater Current	600
Heater Warm-up Time	11
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	
Total DC and Peak	
Heater Positive with Respect to Cathode	
DC	
Total DC and Peak	

6EM5
6.3 Volts
800 Ma
— Seconds
200 Volts
100 Volts
200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate (Max.)	0.7 Pf
Input: g1 to (h + k + g2 + g3)	10 Pf
Output: p to (h + k + g2 + g3)	5.1 Pf

RATINGS (Design Center Rating System)

Vertical Deflection Amplifier⁽¹⁾

Plate Voltage (Max.)	315 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.)	2200 Volts
Grid No. 2 Voltage (Max.)	285 Volts
Peak Negative Pulse Grid Voltage (Max.)	250 Volts
Plate Dissipation (Max.) ⁽²⁾	10.0 Watts
Grid No. 2 Input (Max.) ⁽²⁾	1.5 Watts
Average Cathode Current (Max.)	60 Ma
Peak Cathode Current (Max.)	210 Ma
Bulb Temperature (Max.)	250 °C
Grid Circuit Resistance	
Fixed Bias (Max.)	2.2 Megohms
Cathode Bias (Max.)	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	250 Volts
Grid No. 2 Voltage	250 Volts
Grid No. 1 Voltage	-18.0 Volts
Plate Current	40 Ma
Grid No. 2 Current	3.0 Ma
Transconductance	5100 μ mhos
Amplification Factor ⁽³⁾	8.7
Ec1 Voltage for Ib = 0.2 Ma (Approx.)	-37 Volts

INSTANTANEOUS PLATE KNEE VALUES

Eb = 60 V; Ec2 = 250 V; Ec1 = 0 V;
Ib = 180 Ma and Ic2 = 30 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 measured from Grid No. 1 to Grid No. 2.

Color Television Type

**VERTICAL DEFLECTION
OSCILLATOR and AMPLIFIER**

6EM7

10EM7, 13EM7

Dissimilar Double Triode

Construction	Octal T-9
Base	Octal 8 Pin, B8-58
Basing	.8BD
Outline	9-37
Maximum Diameter	1.188 In.
Maximum Seated Height	2.313 In.
Maximum Overall Height	2.875 In.

