

RATINGS (Design Maximum Rating System)

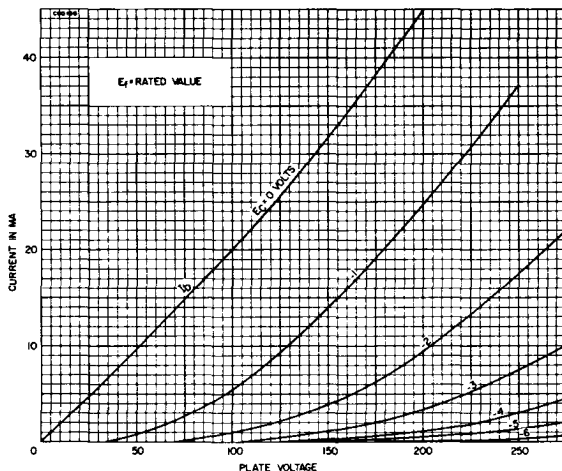
Plate Voltage (Max.)	200 Volts
Plate Dissipation (Max.)	2.5 Watts
DC Cathode Current (Max.)	22 Ma
Negative Grid Voltage (Max.)	50 Volts
Grid Circuit Resistance (Self Bias) (Max.)	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier**

Plate Voltage	135 Volts
Grid Voltage	-1.0 Volts
Plate Current	11.5 Ma
Transconductance	15,000 μ mhos
Amplification Factor	78
Plate Resistance (Approx.)	5400 Ohms
E_c for $G_m = 150 \mu$ mhos (Approx.)	-4.2 Volts
E_c for $G_m = 1500 \mu$ mhos (Approx.)	-2.5 Volts
Input Resistance (200 Hz) ⁽¹⁾	275 Ohms
Input Capacitance (200 Hz) ⁽¹⁾	11.2 Pf
Noise Figure (200 Hz) ⁽²⁾	4.7 db

NOTES:

- (1) Measured under grounded plate conditions.
- (2) Optimized neutralized triode RF amplifier stage, noise matched.

AVERAGE PLATE CHARACTERISTICS**6GK6****10GK6, 16GK6**

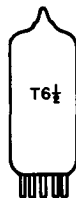
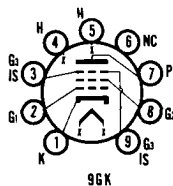
Color Television Type

**AUDIO POWER AMPLIFIER
or VIDEO AMPLIFIER****Beam Power Pentode**

Construction	Miniature T-6½
Base	Button 9 Pin, E9-1
Basing	9GK
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	16GK6	10GK6	6GK6
Heater Current	16.0	10.0	6.3 Volts
Heater Warm-up Time	300	450	760 Ma
	11	11	— Seconds



Maximum Heater-Cathode Voltage

Heater Negative with Respect to Cathode

Total DC and Peak..... 100 Volts

Heater Positive with Respect to Cathode

Total DC and Peak..... 100 Volts

DIRECT INTERELECTRODE CAPACITANCES

Grid No. 1 to Plate (Max.)..... 0.14 Pf

Input..... 10 Pf

Output..... 7 Pf

RATINGS (Design Maximum Rating System)Plate Voltage (Max.)⁽¹⁾..... 330 VoltsGrid No. 2 Voltage (Max.)⁽¹⁾..... 330 Volts

Negative Grid No. 1 Voltage (Max.)..... 100 Volts

Plate Dissipation (Max.)..... 13.2 Watts

Grid No. 2 Dissipation (Average) (Max.)..... 2 Watts

Grid No. 2 Dissipation (Peak) (Max.)..... 4 Watts

Cathode Current (Max.)..... 65 Ma

Grid No. 1 Circuit Resistance

Fixed Bias (Max.)..... 0.3 Megohm

Cathode Bias (Max.)..... 1.0 Megohm

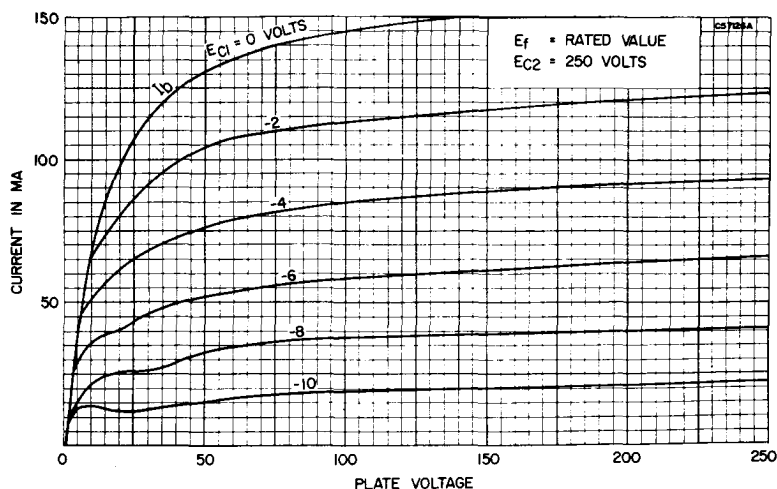
CHARACTERISTICS AND TYPICAL OPERATION

	Pentode Section	
	Single Tube Class A1	Class AB1 Push-Pull
Plate Voltage.....	250	250 300 Volts
Grid No. 2 Voltage.....	250	250 300 Volts
Grid No. 1 Voltage.....	-7.3	— Volts
Cathode Resistor.....	135	130 130 Ohms
Grid Voltage (RMS) Per Grid.....	4.3	8 10 Volts
Plate Current (Zero Signal).....	48	62 72 Ma
Plate Current (Max. Signal).....	49.5	75 92 Ma
Grid No. 2 Current (Zero Signal).....	5.5	7.0 8 Ma
Grid No. 2 Current (Max. Signal).....	10.8	15 22 Ma
Transconductance.....	11.3K	— μ mhos
Amplification Factor ⁽²⁾	19	—
Plate Resistance.....	38K	— Ohms
Load Resistance.....	5.2K	— Ohms
Load Resistance (Plate to Plate).....	—	8K 8K Ohms
Maximum Signal Power Output.....	5.7	11 17 Watts
Total Harmonic Distortion.....	10	3.0 4.0 Percent

NOTES:

(1) When the heater and positive voltages are obtained from a storage battery by means of a vibrator, the maximum values of the plate and Grid No. 2 voltages are 275 volts and that of the plate dissipation 9.9 watts.

(2) Measured from Grid No. 2 to Plate.

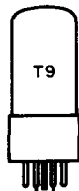
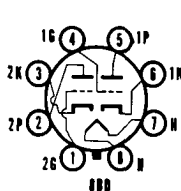
AVERAGE PLATE CHARACTERISTICS

6GL7

Color Television Type

**VERTICAL DEFLECTION
OSCILLATOR and AMPLIFIER****Double Dissimilar Triode**

Construction Octal T-9
 Base 8 Pin, B8-6
 Basing 8BD
 Outline 9-5
 Maximum Diameter 1.188 In.
 Maximum Seated Height 2.438 In.
 Maximum Overall Height 3.000 In.

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

Heater Voltage.....	6.3 Volts
Heater Current	1050 Ma
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)

	Section No. 1	Section No. 2
Grid to Plate	4.0	8.0 Pf
Input	2.2	6.0 Pf
Output	0.6	1.3 Pf

RATINGS (Design Maximum Rating System)**Vertical Deflection Oscillator and Amplifier^(1,2)**

	Oscillator	Amplifier
Plate Voltage (Max.)	350	550 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.)	—	1500 Volts
Plate Dissipation (Each Plate) (Max.) ⁽³⁾	1.0	10 Watts
Total Plate Dissipation (Both Plates) (Max.)	12	12 Watts
Peak Negative Pulse Grid Voltage (Max.)	400	250 Volts
Average Cathode Current (Max.)	—	50 Ma
Peak Cathode Current (Max.)	—	175 Ma
Grid Circuit Resistance		
Fixed Bias (Max.)	1.0	1.0 Megohm
Cathode Bias (Max.)	2.2	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	Oscillator	Amplifier
Plate Voltage	250 275	175 Volts
Grid Voltage	-3.0 —	-25 Volts
Plate Current	2.0 13	46 Ma
Transconductance	2200 1600	6400 μ mhos
Amplification Factor	66 —	5
Plate Resistance (Approx.)	30,000 —	780 Ohms
Grid Voltage for Ib = 20 μ a	5.3 —	— Ma
Grid Voltage for Ib = 200 μ a	— —	-60 Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS (Section No. 2)

Eb = 60 V, and Ec1 = 0 V

Ib = 100 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) Section No. 1 is recommended for vertical oscillator service, and Section No. 2 is recommended for vertical deflection amplifier service.
- (3) 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.