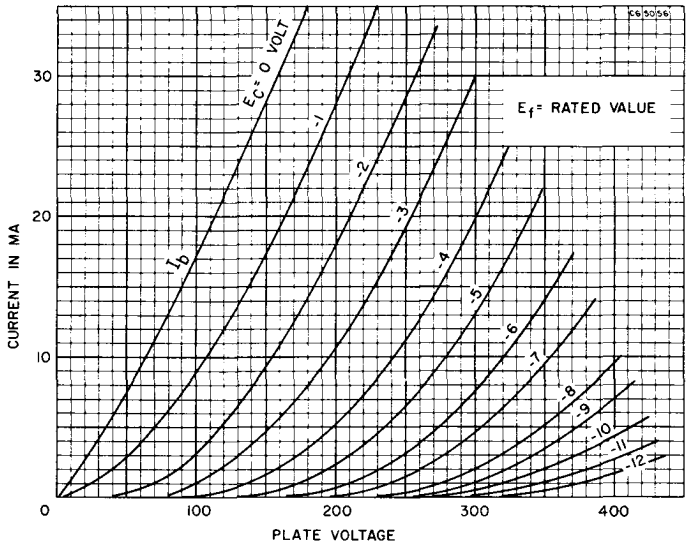


AVERAGE PLATE CHARACTERISTICS
(Triode Section)



CHARACTERISTICS AND TYPICAL OPERATION
Class A1 Amplifier

	Triode Section	Pentode Section
Plate Voltage	125	125 Volts
Grid No. 2 Voltage	—	125 Volts
Grid No. 1 Voltage	0	0 Volt
Cathode Bias Resistor	68	33 Ohms
Plate Current	13	10 Ma
Grid No. 2 Current	—	2.8 Ma
Transconductance	8000	12,000 μ mhos
Amplification Factor	40	—
Plate Resistance (Approx.)	5000	125,000 Ohms
E_{c1} for $I_b = 100 \mu a$ (Approx.)	-5	— Volts
E_{c1} for $I_b = 50 \mu a$ (Approx.)	—	-3 Volts

6KM6

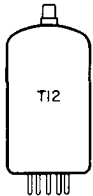
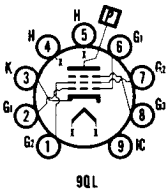
22KM6

Color Television Type

HORIZONTAL DEFLECTION
AMPLIFIER

Beam Power Pentode

Construction Novar T-12
Base Button 9 Pin, E9-88 or E9-76
Top Cap C1-2, C1-33 or C1-3
Basing⁽⁴⁾ 9QL
Outline 12-70
Maximum Diameter 1.562 In.
Maximum Seated Height 3.170 In.
Maximum Overall Height 3.550 In.



ELECTRICAL DATA
HEATER OPERATION

	22KM6	6KM6
Heater Voltage	22.0	6.3 Volts
Heater Current	450	1600 Ma
Heater Warm-up Time	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	1.2 Pf
Input	22.0 Pf
Output	9.0 Pf

RATINGS (Design Maximum Rating System)**Horizontal Deflection Amplifier⁽¹⁾ (Sections in Parallel)**

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
Plate Dissipation (Max.) ⁽²⁾	20 Watts
Peak Negative Grid No. 1 Voltage (Max.)	330 Volts
Grid No. 2 Voltage (Max.)	220 Volts
Grid No. 2 Dissipation (Max.)	3.5 Watts
Average Cathode Current (Max.)	275 Ma
Peak Cathode Current (Max.)	950 Ma
Grid No. 1 Circuit Resistance (Max.)	10.0 Megohms
Bulb Temperature (At Hottest Point)	240 °C

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	6500	140 Volts
Grid No. 2 Voltage	140	140 Volts
Grid No. 1 Voltage	—	-24.5 Volts
Grid No. 3 Voltage	30	30 Volts
Plate Current	—	80 Ma
Grid No. 2 Current	—	2.4 Ma
Transconductance	—	9500 μ mhos
Plate Resistance	—	6000 Ohms
Amplification Factor ⁽³⁾	—	4.0
E_{c1} for $I_b = 1.0$ Ma (Approx.)	-110	-42 Volts

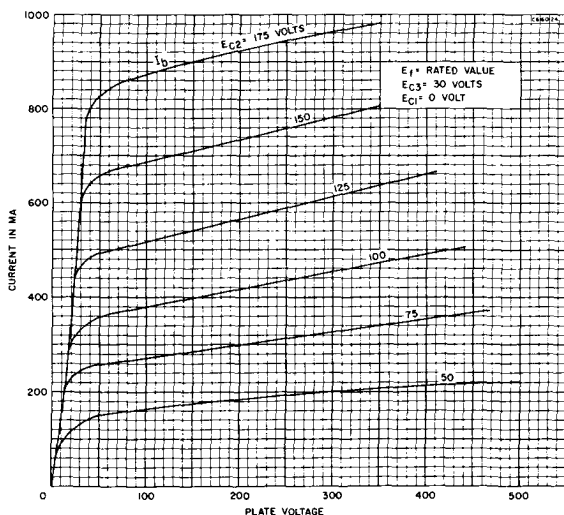
INSTANTANEOUS PLATE KNEE VALUES (Sections in Parallel)

$E_b = 60$ V; $E_{c2} = 140$ V; $E_{c3} = 30$ V; and $E_{c1} = 0$ V

$I_b = 560$ Ma; and $I_{c2} = 81$ Ma

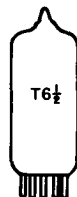
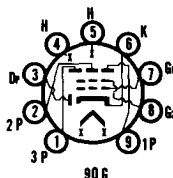
NOTES:

- (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) Amplification factor with tube operating as a triode with 140 volts on the plate and Grid No. 2 and -24.5 volts on Grid No. 1. Grid No. 3 tied to cathode at socket.
- (4) Pins designated internal connection (IC) may or may not be internally connected to elements depending on the manufacturer. To maintain interchangeability these pins should not be used as tie points.

AVERAGE PLATE CHARACTERISTICS

6KM8**"Key" for VIBRATO CIRCUIT (D)
FREQUENCY DIVIDER or
COMPLEX WAVE GEN. (TT)****Diode and Sharp Cutoff
Triple Plate Tetrode**

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

**ELECTRICAL DATA
HEATER OPERATION**

Heater Voltage.....	6.3 Volts
Heater Current.....	300 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)**Tetrode Unit:**

Grid No. 1 to Plate 1A (Max.).....	0.02 Pf
Grid No. 1 to Plate 1B (Max.).....	0.02 Pf
Grid No. 1 to Plate 2 (Max.).....	0.06 Pf
Grid No. 1 to Cathode and Internal Shield, Grid No. 2, and Heater.....	5.5 Pf
Plate 1A to Cathode and Internal Shield, Grid No. 2, and Heater.....	1.2 Pf
Plate 1B to Cathode and Internal Shield, Grid No. 2, and Heater.....	1.3 Pf
Plate 2 to Cathode and Internal Shield, Grid No. 2, and Heater.....	1.8 Pf
Tetrode Grid No. 1 to Diode Plate (Max.).....	0.024 Pf
Tetrode Plate 1A to Diode Plate.....	0.18 Pf
Tetrode Plate 1B to Diode Plate.....	0.024 Pf
Tetrode Plate 2 to Diode Plate.....	0.013 Pf

RATINGS (Design Maximum Rating System)**Tetrode Unit****Frequency-Divider and Complex-Wave-Generator Service**

Plate Voltage:	
Plate 1A (Max.).....	330 Volts
Plate 1B (Max.).....	330 Volts
Plate 2 (Max.).....	330 Volts
Grid No. 2 (Screen Grid) Supply Voltage (Max.).....	330 Volts
Grid No. 2 Voltage.....	See Rating Chart (Gen. Info. Sec.)
Grid No. 1 (Control Grid) Voltage:	
Negative Bias Value (Max.).....	50 Volts
Positive Bias Value (Max.).....	0 Volt
Grid No. 2 Input:	
For Grid No. 2 Voltages up to 165 Volts (Max.).....	0.65 Watt
For Grid No. 2 Voltages Between 165 and 330 Volts.....	See Rating Chart (Gen. Info. Sec.)
Plate 1A Dissipation (Max.).....	1 Watt
Plate 1B Dissipation (Max.).....	1 Watt
Plate 2 Dissipation (Max.).....	1 Watt
Grid No. 1 Circuit Resistance:	
For Grid No. 1 Resistor Bias Operation (Max.).....	2.2 Megohms

Diode Unit

Plate Current (Max.).....	1 Ma
Plate Current for Plate Volts = 10 (Instantaneous Test Condition).....	2 Ma

CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier (Tetrode Unit)****(Plates 1A, 1B, and 2 connected together at socket)**

Plate Voltage.....	100 Volts
Grid No. 2 Voltage.....	100 Volts
Grid No. 1 Supply Voltage.....	0 Volts
Grid No. 1 Resistor (Bypassed).....	2.2 Megohms
Plate Resistance (Approx.).....	30,000 Ohms
Transconductance.....	3400 μ mhms