

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	250 Volts
Grid No. 2 Supply Voltage	150 Volts
Grid No. 1 Voltage	0 Volt
Grid No. 3 Voltage (Referred to Negative End of Rk)	0 Volt
Cathode Resistor (Bypassed)	122 Ohms
Plate Current	25 Ma
Grid No. 2 Current	6 Ma
Transconductance (Grid No. 1 to Plate)	21,000 μ mhos
Plate Resistance (Approx.)	55,000 Ohms
Grid No. 1 Voltage (Approx.) for Ib = 100 μ a (Rk = 0)	-7.2 Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS

Eb = 50 V, Ec2 = 125 V, Ec1 = 0 V, and Ec3 = 0 V
Ib = 76 Ma, and Ic2 = 32 Ma

10EG7

VERTICAL DEFLECTION OSCILLATOR and AMPLIFIER

Double Dissimilar Triode

Construction	Octal T-9
Base	Octal 8 Pin, B8-58
Basing	.8BD
Outline	9-38
Maximum Diameter	1.188 In.
Maximum Seated Height	2.437 In.
Maximum Overall Height	3.000 In.

ELECTRICAL DATA HEATER OPERATION

Heater Voltage	9.7 Volts
Heater Current	600 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)

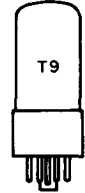
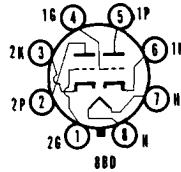
	Section No. 1	Section No. 2
Grid to Plate	4.4	9.5 Pf
Input: g to (h + k)	2.2	7.0 Pf
Output: p to (h + k)	0.6	1.6 Pf

RATINGS (Design Maximum Rating System) Vertical Deflection Oscillator and Amplifier⁽¹⁾

	Section No. 1 Oscillator	Section No. 2 Amplifier
Plate Voltage (Max.)	330	330 Volts
Peak Positive Pulse Plate Voltage (Max.)	—	1500 Volts
Peak Negative Pulse Grid Voltage (Max.)	400	250 Volts
Plate Dissipation (Max.) ⁽²⁾	1.5	10 Watts
Average Cathode Current (Max.)	22	50 Ma
Peak Cathode Current (Max.)	77	175 Ma
Grid Circuit Resistance		
Self Bias (Max.)	2.2	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	Section No. 1 ⁽³⁾	Section No. 2 ⁽³⁾
Plate Voltage	250	150 Volts
Grid No. 1 Voltage	-11	-17.5 Volts
Plate Current	5.5	45 Ma
Transconductance	2000	7500 μ mhos
Amplification Factor	17.5	6.0
Plate Resistance (Approx.)	8750	800 Ohms
Ec for Ib = 10 μ a (Approx.)	-20	— Volts
Ec for Ib = 100 μ a (Approx.)	—	-40 Volts
Ib at Ec = -25 Vdc	—	8 Ma
Ib with Eb = 60 V and Ec = 0 V	—	95 Ma



NOTES:

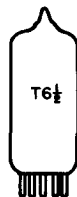
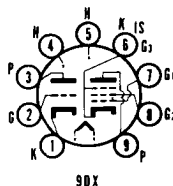
- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse must not exceed 15% of one horizontal scanning cycle.
- (2) In stages operating with grid leak bias, an adequate bias resistor or other suitable means is required to protect the tube in the absence of excitation.
- (3) Section No. 1 connects to Pins 4, 5 and 6. Section No. 2 connects to Pins 1, 2 and 3.

SYNC SEPARATOR or VOLTAGE AMP. (T) VIDEO AMPLIFIER (P)

10JY8

Triode and Sharp Cutoff Pentode

Construction Miniature T-6½
Base Button 9 Pin, E9-1
Basing 9DX
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.....	10.5 Volts
Heater Current	450 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**Triode Section**

Grid to Plate	2.8 Pf
Input: g to (h + Tk + Pk + g3 + IS)	4.2 Pf
Output: p to (h + Tk + Pk + g3 + IS)	3.2 Pf

Pentode Section

Grid No. 1 to Plate	0.08 Pf
Input: g1 to (h + k + g2 + g3 + IS).....	10 Pf
Output: p to (h + k + g2 + g3 + IS).....	4.6 Pf

RATINGS (Design Maximum Rating System)

Plate Voltage (Max.)	330	330 Volts
Grid No. 2 Supply Voltage (Max.)	—	330 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Plate Dissipation (Max.)	2.0	5 Watts
Grid No. 2 Dissipation (Max.)	—	1.1 Watt
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	0.5	0.25 Megohm
Self Bias (Max.)	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier**

	Triode Section	Pentode Section
Plate Voltage	125	200 Volts
Grid No. 2 Voltage	—	150 Volts
Cathode Bias Resistor	68	100 Ohms
Plate Current	15	24 Ma
Grid No. 2 Current	—	4.8 Ma
Transconductance	10,400	11,000 μ mhos
Amplification Factor	46	—
Plate Resistance (Approx.)	4400	55,000 Ohms
Ec1 for Ib = 10 μ a (Approx.)	-8	-10 Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS

Eb = 50 V; Ec2 = 150 V; and Ec1 = 0 V
Ib = 60 Ma (Approx.) and Ic2 = 18 Ma (Approx.)