

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	0.26 Pf
Input: G1 to (k, g3, g2, H)	15.0 Pf
Output: P to (k, g3, g2, H)	6.5 Pf

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

DC Plate Supply Voltage (Max.).....	770 Volts
Peak Positive Pulse Plate Voltage (Max.)	6500 Volts
Peak Negative Pulse Plate Voltage (Max.)	1500 Volts
DC Grid No. 3 Voltage (Max.)	70 Volts
DC Grid No. 2 Voltage (Max.)	220 Volts
DC Grid No. 1 Voltage (Max.)	55 Volts
Peak Negative Pulse Grid No. 1 Voltage	330 Volts
Cathode Current	
Peak (Max.).....	550 Ma
Average (Max.)	175 Ma
Grid No. 2 Input (Max.)	3.5 Watts
Plate Dissipation (Max.) ⁽²⁾	17.5 Watts
Bulb Temperature (At Hottest Point) (Max.)	240 °C
Grid No. 1 Circuit Resistance	
For Grid-Resistor-Bias Operation (Max.)	1 Megohm

CHARACTERISTICS AND TYPICAL OPERATION**Class A1 Amplifier**

Plate Voltage	250 Volts
Grid No. 3 Voltage	Connected to Cathode at Socket
Grid No. 2 Voltage	150 Volts
Grid No. 1 Voltage	-22.5 Volts
Amplification Factor	4.4
Plate Resistance (Approx.)	15,000 Ohms
Transconductance	7100 μ mhos
Plate Current	70 Ma
Grid No. 2 Current	2.1 Ma
Grid No. 1 Voltage for $I_b = 1$ Ma	-42 Volts

INSTANTANEOUS PLATE KNEE VALUES

$E_b = 60$ V, $E_{c2} = 150$ V, and $E_{c1} = 0$ V

$I_b = 390$ Ma and $I_{c2} = 32$ Ma

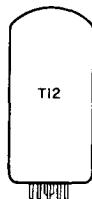
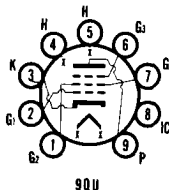
NOTES:

- (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 150 volts on the plate and Grid No. 2 and -22.5 volts on Grid No. 1.

6JT6A**12JT6A, 17JT6A****HORIZONTAL DEFLECTION
AMPLIFIER****Beam Power Pentode**

Construction	Novar T-12
Base	Button 9 Pin, E9-88
Basing	.9QU
Outline	12-95
Maximum Diameter	1.563 In.
Maximum Seated Height	2.500 In.
Maximum Overall Height	2.880 In.

The Types 6JT6A, 12JT6A, and 17JT6A are identical to the Types 6JT6, 12JT6, and 17JT6 except for base with exhaust tip on bottom and shorter bulb.



Color Television Type

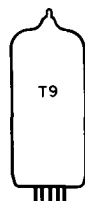
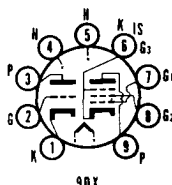
VOLTAGE AMP. or SYNC SEP. (T) VIDEO AMPLIFIER (P)

6JT8

8JT8, 10JT8

High Mu Triode and Sharp Cutoff Pentode

Construction	9T-9
Base	Button 9 Pin, E9-68
Basing	9DX
Outline	9-69
Maximum Diameter	1.188 In.
Maximum Seated Height	2.320 In.
Maximum Overall Height	2.630 In.



ELECTRICAL DATA HEATER OPERATION

	10JT8	8JT8	6JT8
Heater Voltage	10.2	7.7	6.3 Volts
Heater Current	450	600	725 Ma
Heater Warm-up Time	11	11	— Seconds

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Total DC and Peak	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Triode Section

Grid to Plate	3.2 Pf
Input: g to (h + Tk + Pk, g3, IS)	1.7 Pf
Output: p to (h + Tk + Pk, g3, IS)	1.6 Pf

Pentode Section

Grid No. 1 to Plate (Max.)	0.10 Pf
Input: g1 to (h + Pk, g3, IS + g2)	12 Pf
Output: p to (h + Pk, g3, IS + g2)	3.0 Pf

Coupling

Triode Grid to Pentode Plate (Max.)	0.02 Pf
Pentode Grid No. 1 to Triode Plate (Max.)	0.004 Pf
Pentode Plate to Triode Plate (Max.)	0.13 Pf

RATINGS (Design Maximum Rating System)

	Triode Section	Pentode Section
Plate Voltage	330	330 Volts
Grid No. 2 Supply Voltage (Max.)	—	330 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Positive Grid No. 1 Voltage (Max.)	0	0 Volt
Plate Dissipation (Max.)	1.0	4.0 Watts
Grid No. 2 Dissipation (Max.)	—	1.1 Watts
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	0.5	0.25 Megohm
Cathode Bias (Max.)	1.0	1.0 Megohm

Control grid to cathode spacing of the pentode section of this type is of such low order of magnitude as to preclude the use of voltage between these elements of more than 50 volts DC or peak AC in commercial tube checkers and shorts indicating devices, particularly where mechanical excitation of the tube is employed.

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	250	200 Volts
Grid No. 2 Voltage	—	100 Volts
Grid No. 1 Voltage	-2	0 Volts
Cathode Bias Resistor	—	82 Ohms
Plate Current	1.5	17 Ma
Grid No. 2 Current	—	3.5 Ma
Transconductance	2700	20,000 μ mhos
Amplification Factor	100	—
Plate Resistance (Approx.)	37,000	50,000 Ohms
Ec1 for Ib = 100 μ a (Approx.)	—	-5 Volts
Ec for Ib = 20 μ a (Approx.)	-5.3	— Volts

INSTANTANEOUS PLATE KNEE CHARACTERISTICS (Pentode Section)

Eb = 50 V, Ec2 = 100 V and Ec1 = 0 V
Ib = 55 Ma, and Ic2 = 18 Ma