

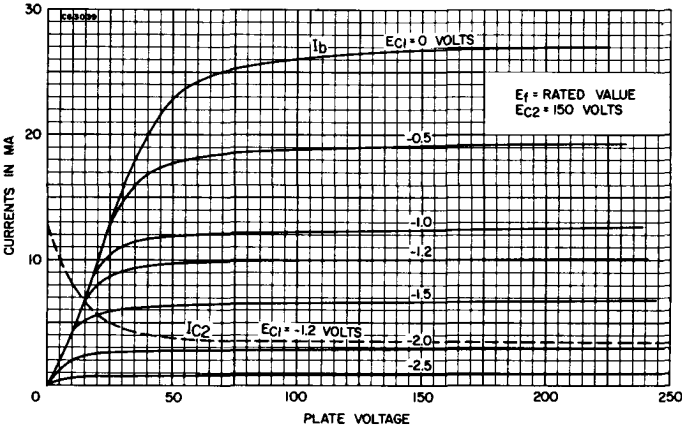
Grid No. 1 Circuit Resistance (Max.) 0.5 — Megohm
Fixed Bias (Max.) — 0.25 Megohm
Cathode Bias (Max.) — 0.5 Megohm

The spacing between the control grids and cathodes are of such a low order of magnitude as to preclude the use of excessive voltages between these elements in commercial tube checkers and shorts indicating devices, particularly where the tube is mechanically excited. The DC or peak AC voltage applied between each sections control grid and cathode must not exceed 30 volts for the pentode or 50 volts for the triode.

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Voltage	100	170 Volts
Grid No. 2 Voltage	—	150 Volts
Grid No. 1 Voltage	-3	-1.2 Volts
Plate Current	14	10 Ma
Grid No. 2 Current	—	3.3 Ma
Transconductance	5500	12,000 μ mhos
Amplification Factor (g1 to g2)	17	70
Plate Resistance.....	3100	350,000 Ohms

AVERAGE PLATE CHARACTERISTICS
(Pentode Section)



6HJ5

21HJ5, 30HJ5

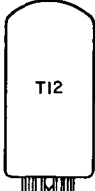
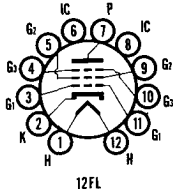
HORIZONTAL DEFLECTION
AMPLIFIER

Beam Power Pentode

Construction.....Compactron T-12
Base Button 12 Pin, E12-74
Basing 12FL
Outline 12-87
Maximum Diameter 1.563 In.
Maximum Seated Height 3.250 In.
Maximum Overall Height 3.625 In.

ELECTRICAL DATA
HEATER OPERATION

	30HJ5	21HJ5	6HJ5
Heater Voltage.....	30	21.5	6.3 Volts
Heater Current	450	600	2250 Ma
Heater Warm-up Time	11	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



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

Plate Voltage (boost + DC power supply) (Max.)	770 Volts
Grid No. 2 Voltage (Max.)	220 Volts
Plate Dissipation (Max.)	24 Watts
Grid No. 2 Dissipation (Max.)	6.0 Watts
Grid No. 2 Dissipation (warm up surge) (Max.) ⁽²⁾	12 Watts
Average Cathode Current (Max.)	280 Ma
Peak Cathode Current (Max.)	1000 Ma
Peak Positive Plate Voltage (Max.)	7000 Volts
Peak Negative Plate Voltage (Max.)	1500 Volts
Peak Negative Grid No. 1 Voltage (Max.)	330 Volts
Grid No. 1 Circuit Resistance (Max.)	1.0 Megohm
Bulb Temperature (at Hottest Point) (Max.)	240 °C
DC Grid No. 3 Voltage (Max.)	70 Volts

CHARACTERISTICS AND TYPICAL OPERATION

Plate Voltage	20	40	60	135 Volts
Grid No. 2 Voltage	110	110	135	135 Volts
Grid No. 1 Voltage	0	0	0	-22 Volts
Grid No. 3 Voltage	—	—	—	0 Volt
Plate Current	240 ⁽³⁾	400 ⁽³⁾	540 ⁽³⁾	80 Ma
Grid No. 2 Current	160 ⁽³⁾	42 ⁽³⁾	48 ⁽³⁾	5.5 Ma
Triode Amplification Factor	—	—	—	4.2
Transconductance	—	—	—	10,000 μ mhos
Plate Resistance	—	—	—	5000 Ohms
Grid No. 1 Voltage (Approx.) for Ib = 1 Ma (Ep = 4.5 KV)	—	—	—	-70 Volts

NOTES:

- (1) For operating 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) Surge not to exceed 15 seconds duration.
- (3) Instantaneous Values.

DETECTOR or DC RESTORER and IF/AGC AMPLIFIER

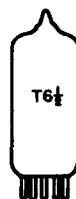
6HJ8

High Perveance Diode and Sharp Cutoff Pentode

Construction	Miniature T-6½
Base	Button 9 Pin, E9-1
Basing	9CY
Outline	6-2
Maximum Diameter	0.875 In.
Maximum Seated Height	1.937 In.
Maximum Overall Height	2.187 In.



9CY

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

Heater Voltage	6.3 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 (Shielded)⁽¹⁾**Pentode**

Grid to Plate (Max.)	0.015 Pf
Input: g1 to (h+k+g2+g3+1S)	7.0 Pf
Output: p to (h+k+g2+g3+1S)	3.2 Pf

Diode

Input: p to (h+k)	2.4 Pf
Output: k to (h+p)	3.0 Pf

Coupling

Diode Plate to Pentode Plate (Max.)	0.035 Pf
Diode Plate to Grid No. 1 (Max.)	0.005 Pf
Diode Cathode to Pentode Plate (Max.)	0.015 Pf