

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 $I_b = 1$ Ma ($E_p = 4.5$ 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

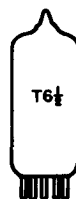
6HJ8

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

RATINGS (Design Maximum Rating System)

Plate Voltage (Max.)	330 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)
Grid No. 2 Supply Voltage (Max.)	330 Volts
Plate Dissipation (Max.)	3.2 Watts
Grid No. 2 Dissipation (Max.)	0.55 Watt
Positive Grid No. 1 Voltage (Max.)	0 Volt
Grid No. 1 Circuit Resistance	
Cathode Bias (Max.)	1.0 Megohm
Fixed Bias (Max.)	0.25 Megohm
Diode Current for Continuous Operation (Max.)	5.0 Ma

CHARACTERISTICS AND TYPICAL OPERATION

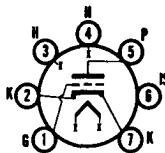
Plate Voltage	125 Volts
Grid No. 2 Voltage	125 Volts
Grid No. 3 Voltage	0 Volts
Cathode Resistor	56 Ohms
Plate Current	11.5 Ma
Grid No. 2 Current	3.6 Ma
Transconductance	9300 μ mhos
Plate Resistance (Approx.)	0.2 Megohm
Grid No. 1 Voltage for $I_b = 20 \mu$ a (Approx.)	-6 Volts
Diode Plate Voltage for Diode Current of 50 Ma ⁽²⁾	10 Volts

NOTES:

- (1) Shield No. 315.
- (2) Test condition only.

6HK5**2HK5, 3HK5, 4HK5****VHF AMPLIFIER****Gain Controlled Triode**

Construction	Miniature T-5½
Base	Button 7 Pin, E7-1
Basing	7GM
Outline	5-2
Maximum Diameter	0.750 In.
Maximum Seated Height	1.875 In.
Maximum Overall Height	2.125 In.



7GM

**ELECTRICAL DATA
HEATER OPERATION**

	2HK5	3HK5	4HK5	6HK5
Heater Voltage	2.3	2.9	4.0	6.3 Volts
Heater Current	600	450	300	190 Ma
Heater Warm-up Time	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 (Shielded)⁽¹⁾

Grid to Plate	0.29 Pf
Input: g to (h + k + IS + E.S.)	4.4 Pf
Output: p to (h + k + IS + E.S.)	2.6 Pf
Heater to Cathode	2.5 Pf

RATINGS (Design Maximum Rating System)

Plate Voltage (Max.)	200 Volts
Plate Dissipation (Max.)	2.3 Watts
DC Cathode Current (Max.)	22 Ma
Negative Grid Voltage (Max.)	50 Volts
Grid Circuit Resistance (Self Bias) (Max.)	1.0 Megohm
Control grid to cathode spacing on this type is of such low order of magnitude as to preclude the use of voltage between these elements of more than 30 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**Class A1 Amplifier**

Plate Voltage	135 Volts
Grid Voltage	-1.0 Volt
Plate Current	12.5 Ma