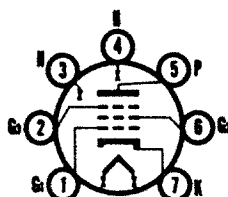


AF AMPLIFIER

7543

Sharp Cutoff Pentode

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



7BK



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

	Shielded ⁽¹⁾	Unshielded
Pentode Connection		
Grid No. 1 to Plate (Max.).....	0.0035	0.0035 Pf
Input: g1 to (h + k + g2 + g3 + IS).....	5.5	5.5 Pf
Output: p to (h + k + g2 + g3 + IS).....	5.0	5.0 Pf
Triode Connection ⁽²⁾		
Grid to Plate: g1 to (p + g2 + g3 + IS)	2.6	2.6 Pf
Input: g1 to (h + k)	3.2	3.2 Pf
Output: p + g2 + g3 + IS to (h + k)	8.5	1.2 Pf

RATINGS (Design Center Rating System)

	Triode Conn. ⁽²⁾	Pentode Conn.
Plate Voltage (Max.)	250	300 Volts
Grid No. 2 Supply Voltage (Max.)	—	300 Volts
Grid No. 2 Voltage	See Rating Chart (Gen. Info. Sec.)	
Plate Dissipation (Max.)	3.2	3.0 Watts
Grid No. 2 Dissipation (Max.)	—	0.65 Watt
Positive Grid No. 1 Voltage (Max.)	0	0 Volt

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Conn. ⁽²⁾	Pentode Connected		
		100	250	250 Volts
Plate Voltage	250	100	250	250 Volts
Grid No. 3 Voltage	—	Connected to Cathode at Socket		
Grid No. 2 Voltage	—	100	125	150 Volts
Cathode Bias Resistor	330	150	100	68 Ohms
Plate Current	12.2	5.0	7.6	10.6 Ma
Grid No. 2 Current	—	2.1	3.0	4.3 Ma
Transconductance	4800	3900	4500	5200 μmhos
Amplification Factor	36	—	—	—
Plate Resistance (Approx.)	—	0.5	1.5	1.0 Megohms
Ec1 for Ib = 10 μa (Approx.)	—	-4.2	-5.5	-6.5 Volts

NOTES:

- (1) Shield No. 316 connected to Cathode Pin No. 7.
- (2) When operated as a triode Grid No. 2 and Grid No. 3 should be tied to the plate.