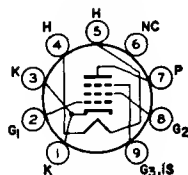


6HM6

4HM6

SHARP-CUTOFF PENTODE

Miniature type with frame grid used in the if-amplifier stages of television receivers. Outlines section, 6B; requires miniature 9-contact socket. Type 4HM6 is identical with type 6HM6 except for heater ratings.

**9PM**

	4HM6	6HM6	
Heater Voltage (ac/dc)	4.2	6.3	volts
Heater Current	0.45	0.3	ampere
Heater Warm-up Time (Average)	11	—	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:	Unshielded	Shielded	
Grid No.1 to Plate	0.031	0.024	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	8.7	8.7	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	2.15	3	pF

Class A₁ Amplifier**MAXIMUM RATINGS (Design-Maximum Values)**

Plate Voltage	250	volts
Grid-No.2 (Screen-Grid) Supply Voltage	250	volts
Grid-No.2 Supply Voltage	See curve page 98	
Grid-No.1 (Control-Grid) Voltage, Negative-bias value	50	volts
Cathode Current	25	mA
Plate Dissipation	2.5	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 125 volts	2.5	watts
For grid-No.2 voltages between 125 and 250 volts	See curve page 98	

CHARACTERISTICS

Plate Supply Voltage	125	volts
Grid No.3 (Suppressor Grid)	Connected to cathode at socket	
Grid-No.2 Supply Voltage	125	volts
Cathode-Bias Resistor	56	ohms
Plate Resistance (Approx.)	0.156	megohm
Transconductance	15000	μmhos
Plate Current	13	mA
Grid-No.2 Current	3.2	mA
Grid-No.1 Voltage (Approx.) for transconductance of 160 μmhos	—3	volts

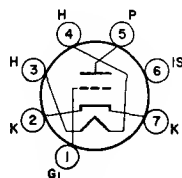
MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.25	megohm
For cathode-bias operation	1	megohm

6HQ5**HIGH-MU TRIODE**

2HQ5, 3HQ5, 4HQ5

Miniature type used as grounded-cathode rf-amplifier tube in vhf tuners of television receivers. Outlines section, 5C; requires miniature 7-contact socket. Types 2HQ5, 3HQ5, and 4HQ5 are identical with type 6HQ5 except for heater ratings.

**7GM**

	2HQ5	3HQ5	4HQ5	6HQ5	
Heater Voltage (ac/dc)	2.4	3	4.2	6.3	volts
Heater Current	0.6	0.45	0.3	0.2	ampere
Heater Warm-up Time (Average)	11	11	11	—	seconds
Peak Heater-Cathode Voltage	±100 max	±100 max	±100 max	±100 max	volts
Direct Interelectrode Capacitances (Approx.):*					
Grid to Plate				0.52	pF
Grid to Cathode, Heater, and Internal Shield				5	pF
Plate to Cathode, Heater, and Internal Shield				3.5	pF
Heater to Cathode				2.5	pF

With external shield connected to cathode.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	200	volts
Grid Voltage, Negative-bias Value	50	volts
Cathode Current	22	mA
Plate Dissipation	2.5	watts

CHARACTERISTICS

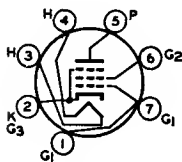
Plate Voltage	135	volts
Grid Voltage	—1	volt
Amplification Factor	78	
Plate Resistance	5400	ohms
Transconductance	15000	μ mhos
Plate Current	11.5	mA
Input Resistance**	275	ohms
Input Capacitance**	11.2	pF
Noise Figure#	4.7	dB
Grid Voltage (Approx.) for transconductance of 150 μ mhos	—4.2	volts
Grid Voltage (Approx.) for transconductance of 1500 μ mhos	—2.5	volts

MAXIMUM CIRCUIT VALUE

Grid-Circuit Resistance, for cathode-bias operation	1	megohm
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** Measured at 200 MHz with heater volts = 6.3 volts and plate effectively grounded for rf voltages.

For a neutralized triode amplifier at a frequency of 200 MHz with signal source impedance adjusted for minimum noise output.



BEAM POWER TUBE

6HR5

Miniature type used as vertical-deflection amplifier in television receivers. Outlines section, 5D; requires miniature 7-contact socket.

7BZ

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.45	ampere
Heater Warm-up Time (Average)	11	seconds
Heater-Cathode Voltage:		
Peak value	±200 max	volts
Average value	100 max	volts
Direct Interelectrode Capacitances:		
Grid No.1 to Plate	0.35	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	8.3	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	8.2	pF

Vertical-Deflection Amplifier

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	260	volts
Peak Positive-Pulse Plate Voltage# (Absolute Maximum)	1500	volts
Grid-No.2 (Screen-Grid) Voltage	270	volts
Peak Negative-Pulse Grid-No.1 Voltage	150	volts
Plate Dissipation	8	watts
Peak Cathode Current	125	mA
Average Cathode Current	35	mA
Grid-No.2 Input	2	watts

CHARACTERISTICS

Plate Voltage	50	260	volts
Grid-No.2 Voltage	250	270	volts
Grid-No.1 Voltage	0	—19	volts
Transconductance	—	3600	μ mhos
Plate Current	105	30	mA
Grid-No.2 Current	25	2.3	mA
Grid-No.1 Voltage (Approx.) for plate current of 100 μ A	—	—43	volts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	2.2	megohms
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Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).