

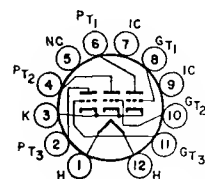
MAXIMUM CIRCUIT VALUES

Grid-No.3-Circuit Resistance (Each Unit)	0.5	megohm
Grid-No.1-Circuit Resistance	0.5	megohm

* With plate and grid No.3 of other unit grounded. * Grid current adjusted for 100 μ A dc.

Refer to chart at end of section.

6ML8



12HU

HIGH-MU TRIPLE TRIODE

6MN8

9MN8

Duodecar type used for matrix-amplifier applications in color television receivers. Outlines section, 8D; requires duodecar 12-contact socket. Type 9MN8 is identical with type 6MN8 except for heater ratings.

		6MN8	9MN8	
Heater Voltage		6.3	9.5	volts
Heater Current		0.9	0.6	ampere
		—	11	seconds
Heater-Cathode Voltage:				
Peak value		±200 max	±200 max	volts
Average value		±100 max	±100 max	volts
Direct Interelectrode Capacitances:	Unit No.1	Unit No.2	Unit No.3	
Grid to Plate	2.6	2.6	2.6	pF
Grid to Cathode and Heater	4.6	4.6	4.6	pF
Plate to Cathode and Heater	0.33	0.57	0.65	pF

Class A₁ Amplifier (Each Unit)

MAXIMUM RATINGS (Design-Maximum Values)

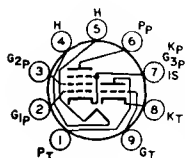
Plate Voltage	330	volts
Grid Voltage, Positive-bias value	0	volt
Plate Dissipation	3	watts

CHARACTERISTICS

Plate Voltage	125	200	volts
Grid Voltage	—1	—4	volts
Amplification Factor	47	40	
Plate Resistance (Approx.)	6250	10000	ohms
Transconductance	7500	4000	μ mhos
Plate Current	11	4.8	mA
Grid Voltage (Approx.) for plate current of 50 μ A	—5	—11	volts

MAXIMUM CIRCUIT VALUE

Grid-Circuit Resistance, for fixed-bias operation	1	megohm
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9AE

MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

6MQ8

5MQ8

Miniature type used in color and black-and-white television receiver applications. The pentode unit is used in band-pass-amplifier applications. The triode unit is used in video-amplifier, sync-separator, color-killer-control, matrix-amplifier, and blanker applications. Outlines section, 6B; requires miniature 9-contact socket. Type 5MQ8 is identical with type 6MQ8 except for heater ratings.

Heater Voltage (ac/dc)	5.6	6.3	volts
Heater Current	0.6	0.535	ampere
Heater Warm-up Time	11	—	seconds
Heater Cathode Voltage:			
Peak value	± 200 max	± 200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
Triode Unit:			
Grid to Plate		1.7	pF
Grid to Triode Cathode, Pentode Cathode, Heater, Pentode Grid No.3, and Internal Shield		3	pF

Plate to Triode Cathode, Pentode Cathode, Heater, Pentode Grid No.3, and Internal Shield	1.4	pF
Pentode Unit:		
Grid No.1 to Plate	0.045	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	7.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	2.2	pF

Class A₁ Amplifier

MAXIMUM RATINGS

	Triode Unit	Pentode Unit	
DC Plate Voltage	330	330	volts
DC Grid-No.2 (Screen-Grid) Supply Voltage	—	330	volts
DC Grid-No.2 Voltage	—	See curve page 300	
DC Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volt
Plate Dissipation	2.7	2.5	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	0.55	watt
For grid-No.2 voltages between 165 and 330 volts	—	See curve page 300	
Interelectrode Leakage	109	100	megohms

CHARACTERISTICS

	Triode Unit	Pentode Unit	
DC Plate Voltage	150	125	volts
DC Grid-No.2 Voltage	—	125	volts
Cathode Resistance	56	62	ohms
Amplification Factor	40	—	
Plate Resistance (Approx.)	5	150	kohms
Transconductance	8500	10000	μmhos
DC Plate Current	18	12	mA
DC Grid-No.2 Current	—	4.5	mA
Grid-No.1 Voltage for plate current of 100 μA	—12	—7	volts

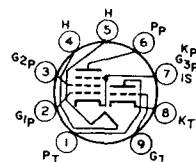
MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.5	0.25	megohms
For cathode-bias operation	0.5	0.5	megohms

6MU8

MEDIUM-MU TRIODE— SEMIREMOTE-CUTOFF PENTODE

Miniature type used in color and black-and-white television receiver applications. The pentode unit is used in burst-amplifier circuits, and the triode unit as a general amplifier tube. Outlines section, 6E; requires miniature 9-contact socket.



9AE

Heater Voltage	6.3	volts
Heater Current	0.6	ampere
Heater Warm-up Time	11	seconds
Heater-Cathode Voltage:		
Peak value	±200 max	volts
Average value	100 max	volts

Direct Interelectrode Capacitances:

	With Shield	Without Shield	
Triode Unit:			
Grid to Plate	2.2	2.2	pF
Grid to Cathode, Heater, Pentode Cathode, Pentode Grid No.3, and Internal Shield	3.2	3	pF
Plate to Cathode, Heater, Pentode Cathode, Pentode Grid No.3, and Internal Shield	3.4	2.2	pF
Pentode Unit:			
Grid No.1 to Plate	0.05	0.05	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	9	9	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	4.4	3.6	pF
Heater to Triode Cathode	4.8	4.4	
Heater to Pentode Cathode	7.5	5.5	pF
Pentode Grid No.1 to Triode Plate	0.2	0.17	pF
Pentode Plate to Triode Plate	0.008	0.09	pF