

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation	1	1	megohm
For cathode-bias operation	3.3	2.2	megohms

* Maximum pulse duration 5 per cent of a cycle with a maximum of 1 millisecond.

* Maximum pulse duration 200 microseconds. If a larger flyback is required, this value may be reduced to 100 mA with a maximum pulse duration of 400 microseconds.

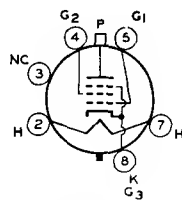
* This value can be measured by a method involving a recurrent waveform such that the maximum tube ratings will not be exceeded.

6GW6

Refer to chart at end of section.

**6GW6/
6DQ6B****12GW6/12DQ6B****17GW6/17DQ6B**

Glass octal type used as horizontal-deflection amplifier in high-efficiency deflection circuits of television receivers. Outlines section, 20; requires octal socket. Types 12GW6/12DQ6B and 17GW6/17DQ6B are identical with type 6GW6/6DQ6B except for heater ratings.

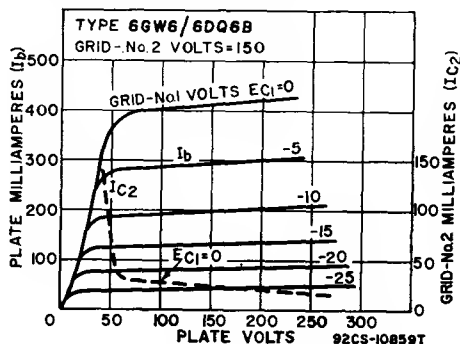
BEAM POWER TUBE**6AM**

	6GW6/ 6DQ6B	12GW6/ 12DQ6B	17GW6/ 17DQ6B	
Heater Voltage (ac/dc)	6.3	12.6	16.8	volts
Heater Current	1.2	0.6	0.45	amperes
Heater Warm-up Time (Average)	—	11	11	seconds
Heater-Cathode Voltage:				
Peak value	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx.):				
Grid No.1 to Plate	—	—	0.5	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	—	—	17	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	—	—	7	pF

Class A₁ Amplifier**CHARACTERISTICS**

	Triode Connection	Pentode Connection	
Plate Voltage	150	60	250
Grid-No.2 Voltage	150	150	150
Grid-No.1 Voltage	-22.5	0	-22.5
Mu-Factor, Grid No.2 to Grid No.1	4.4	—	—
Plate Resistance (Approx.)	—	—	15000
Transconductance	—	—	7100
Plate Current	—	390*	70
Grid-No.2 Current	—	32*	2.1
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	—	-42

* This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.



Horizontal-Deflection Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)

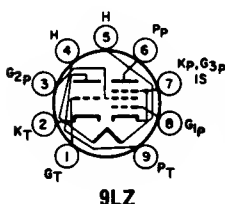
DC Plate Supply Voltage	770	volts
Peak Positive-Pulse Plate Voltage#	6500	volts
Peak Negative-Pulse Plate Voltage	1500	volts
DC Grid-No.2 (Screen-Grid) Voltage	220	volts
DC Grid-No.1 (Control-Grid) Voltage	-55	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	550	mA
Average Cathode Current	175	mA
Plate Dissipation*	17.5	watts
Grid-No.2 Input	3.5	watts
Bulb Temperature (At hottest point)	240	°C

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance, for grid-resistor-bias operation	1	megohm
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

* A bias resistor or other means is required to protect the tube in absence of excitation.



9LZ

HIGH-MU TRIODE—
SHARP-CUTOFF PENTODE**6GW8/
ECL86**

Miniature type used in preamplifier and audio output stages of audio equipment and television receivers. Outlines section, 6G; requires miniature 9-contact socket. Heater: volts (ac/dc), 6.3; amperes, 0.7; maximum heater-cathode volts, 100 peak.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)

Plate Supply Voltage	550
Plate Voltage	300
Grid-No.2 (Screen-Grid) Supply Voltage	—
Grid-No.2 Voltage	—
Grid-No.1 (Control-Grid) Voltage, Negative-bias value	1.3
Cathode Current	4
Plate Dissipation	0.5
Grid-No.2 Input	—

Triode Unit Pentode Unit

550	550	volts
300	300	volts
—	550	volts
—	300	volts
1.3	1.3	volts
4	55	mA
0.5	9	watts
—	1.5	watts

CHARACTERISTICS

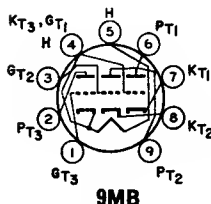
Plate Voltage	250
Grid-No.2 Voltage	—
Grid-No.1 Voltage	-1.9
Amplification Factor	100
Plate Resistance (Approx.)	—
Transconductance	1600
Plate Current	1.2
Grid-No.2 Current	—

250	250	volts
—	250	volts
-1.9	-7	volts
100	21*	
—	45000	ohms
1600	10000	μmhos
1.2	36	mA
—	6	mA

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance, for fixed-bias operation	1	0.5	megohm
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* Grid No.2 to grid No.1.



9MB

HIGH-MU TRIPLE TRIODE

6GY8

Miniature type used for rf-amplifier, autodyne mixer, and af-control service in FM receivers. Outlines section, 6B; requires miniature 9-contact socket. Heater: volts (ac/dc), 6.3; amperes, 0.45; maximum heater cathode volts, ±100.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values, Each Unit)

Plate Voltage	330	volts
Grid Voltage, Positive-bias value	0	volts
Plate Dissipation (Each unit)	2	watts
Plate Dissipation (All plates)	5	watts