

9LY

HIGH-MU TRIODE— POWER PENTODE

6GV8/ ECL85

9GV8/XCL85,
10GV8/LCL85
18GV8/PCL85

Miniature type used for sync-amplifier and video-output applications in television receivers. Outlines section, 6G; requires miniature 9-contact socket. Types 9GV8/XCL85, 10GV8/LCL85, and 18GV8/PCL85 are identical with type 6GV8/ECL85 except for heater ratings.

	6GV8/ ECL85	9GV8/ XCL85	10GV8/ LCL85	18GV8/ PCL85	
Heater Voltage (ac/dc)	6.3	9.5	11.6	18	volts
Heater Current	0.9	0.6	0.45	0.3	ampere
Peak Heater-Cathode Voltage	±220 max	±200 max	±200 max	±200 max	volts

Class A₁ Amplifier

MAXIMUM RATINGS (Absolute-Maximum Values)

	Triode Unit	Pentode Unit	
Plate Supply Voltage	550	550	volts
Peak Plate Voltage	—	2000	volts
DC Plate Voltage	250	250	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	550	volts
Grid-No.2 Voltage	—	250	volts
Peak Cathode Current*	200	—	mA
Average Cathode Current	15	75	mA
Plate Dissipation	0.5	7	watts
Grid-No.2 Input	—	2	watts

CHARACTERISTICS

Plate Voltage	100	50	65	170	volts
Grid-No.2 Voltage	—	170	210	170	volts
Grid-No.1 Voltage	—0.8	—1	—1	—15	volts
Amplification Factor	50	—	—	—	
Mu-Factor, Grid No.1 to Grid No.2	—	—	—	7	
Plate Resistance (Approx.)	7600	—	—	25000	ohms
Transconductance	6500	—	—	7500	μmhos
Plate Current	5	200*	240*	41	mA
Grid-No.2 Current	—	40*	50*	2.7	mA

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.

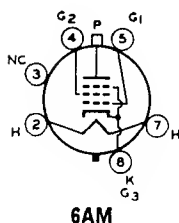
• This value can be measured by a method involving a recurrent waveform such that the maximum tube ratings will not be exceeded.

Refer to chart at end of section.

For replacement use type 6GW6/6DQ6B.

6GW6

BEAM POWER TUBE



6AM

6GW6/ 6DQ6B

12GW6/12DQ6B
17GW6/17DQ6B

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

	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 ^a	70
Grid-No.2 Current	—	32 ^a	2.1
Grid-No.1 Voltage (Approx.) for plate current of 1 mA	—	—	—42

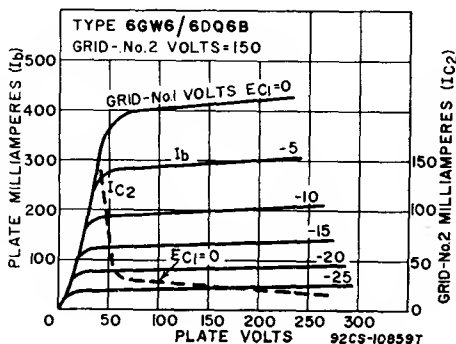
* This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

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

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.