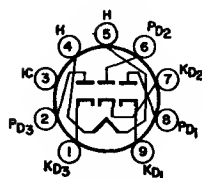


6GQ7

19GQ7

TRIPLE DIODE

Miniature type used in AM/FM radio receivers as a combination FM discriminator and AM detector tube. Outlines section, 6B; requires miniature 9-contact socket. Type 19GQ7 is identical with type 6GQ7 except for heater ratings.

**9QM**

	6GQ7	19GQ7	
Heater Voltage (ac/dc)	6.3	18.9	volts
Heater Current	0.45	0.15	ampere
Heater-Cathode Voltage:			
Peak value	+200, —300 max		volts
Average value	100 max		volts
MAXIMUM RATINGS (Design-Maximum Values)			
Peak Inverse Voltage		330	volts
AC Plate Voltage		117	volts
AC Plate Current		54	mA
DC Output Current		9	mA
Minimum Total Effective Plate Supply Impedance		300	ohms
CHARACTERISTICS (Each Diode Unit)			
Tube Voltage Drop for plate current of 60 mA		10	volts

6GT5

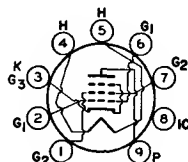
Refer to chart at end of section.

6GT5A

17GT5A

BEAM POWER TUBE

Novar type used as horizontal-deflection amplifier in television receivers. Outlines section, 31A; requires novar 9-contact socket. For curve of average characteristics, refer to type 6GW6. Type 17GT5A is identical with type 6GT5A except for heater ratings.

**9NZ**

	6GT5A	17GT5A	
Heater Voltage (ac/dc)	6.3	16.8	volts
Heater Current	1.2	0.45	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 (Approx.):			
Grid No.1 to Plate		0.26	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3		15	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3		6.5	pF

Class A₁ Amplifier**CHARACTERISTICS**

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

* 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

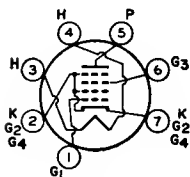
Peak Negative-Pulse Plate Voltage	1500	volts
DC Grid-No.2 Voltage	220	volts
DC Grid-No.1 Voltage	—55	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	550	mA
Average Cathode Current	175	mA
Plate Dissipation*	17.5	watts
Grid-No.2 Input	3.5	watts
Bulb Temperature (At hottest point)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

MAXIMUM CIRCUIT VALUE

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.

**7GA****BEAM HEXODE****6GU5****2GU5**

Miniature type used as rf amplifier in vhf television receivers. Outlines section, 5C; requires miniature 7-contact socket. Type 2GU5 is identical with type 6GU5 except for heater ratings.

Heater Voltage (ac/dc)	2GU5 2.4	6GU5 6.3	volts
Heater Current	0.6	0.22	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:			
Grid No.1 to Plate		0.018	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Grid No.4		7	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Grid No.4		3.2	pF

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

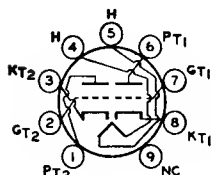
Plate Voltage	300	volts
Grid-No.3 (Screen-Grid) Voltage:	150	volts
DC Grid-No.1 (Control-Grid) Voltage:		
Positive-bias value	0	volts
Negative-bias value	50	volts
Average Cathode Current	20	mA
Plate Dissipation	3	watts
Grid-No.3 Input	0.15	watts

CHARACTERISTICS

Plate Voltage	135	275	volts
Grid-No.3 Voltage	135	135	volts
Grid-No.1 Voltage	—0.4	—0.4	volts
Plate Resistance (Approx.)	0.67	0.165	megohms
Transconductance	15000	15500	μmhos
Plate Current	9	10	mA
Grid-No.3 Current	0.25	0.17	mA
Grid-No.1 Voltage (Approx.) for transconductance of 100 μmhos	—6.2	—6.5	volts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance, for fixed-bias operation 0.5 megohm

**9LP****MEDIUM-MU TWIN TRIODE****6GU7****8GU7**

Miniature type used in the matrixing circuits of color and black-and-white television receivers and in phase-inverter, multivibrator, and general-purpose amplifier applications. Outlines section, 6E; requires miniature 9-contact socket. Type 8GU7 is identical with type 6GU7 except for heater ratings.