

MAXIMUM CIRCUIT VALUES

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

Pentode Unit as Frequency Changer**CHARACTERISTICS**

Plate Voltage	190	volts
Grid-No.2 Supply Voltage	190	volts
Oscillator Voltage	2.3	volts (rms)
Grid-No.2 Circuit Resistance	0.018	megohm
Grid-No.1 Circuit Resistance	0.1	megohm
Plate Current	8.5	mA
Grid-No.2 Current	2.7	mA
Grid-No.1 Current	30	μA
Plate Resistance	0.6	megohm
Conversion Transconductance	4500	μmhos

Triode Unit as Oscillator**CHARACTERISTICS**

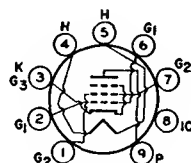
Plate Supply Voltage	190	volts
Plate Circuit Resistance	8200	ohms
Grid Circuit Resistance	10000	ohms
Oscillator Voltage	4.5	volts (rms)
Plate Current	12	mA
Transconductance	3500	μmhos

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.

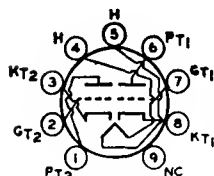
Refer to chart at end of section.

6GU5

MEDIUM-MU TWIN TRIODE

6GU7

8GU7



9LP

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.

Heater Voltage (ac/dc)	6GU7 6.3	8GU7 8.4	volts
Heater Current	0.6	0.45	ampere
Heater Warm-up Time (Average)	11	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances (Approx.):	Unit No.1	Unit No.2	
Grid to Plate	3	3	pF
Grid to Cathode and Heater	3.4	3.6	pF
Plate to Cathode and Heater	0.44	0.34	pF
Plate of Unit No.1 to Plate of Unit No.2	1		pF

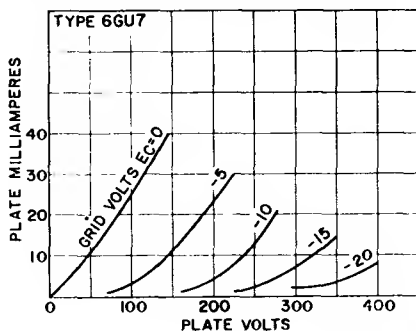
Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

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

CHARACTERISTICS

Plate Voltage	250	volts
Grid Voltage	-10.5	volts
Amplification Factor	17	
Plate Resistance (Approx.)	5500	ohms
Transconductance	3100	μmhos



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