



SHARP-CUTOFF PENTODE

6GY6

Miniature type used in gated-agc-amplifier circuits and as a noise-inverter tube in color and black-and-white television receivers. Tube has two independent control grids. Outlines section, 5C; requires miniature 7-contact socket. For curves of average characteristics, refer to type 6GX6.

7EN

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.45	ampere
Heater Warm-up Time (Average)	11	seconds
Heater-Cathode Voltage:		
Peak value	±200 max	volts
Average value	100 max	volts
Direct Interelectrode Capacitances:		
Grid No.1 to Plate	0.026	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	8	pF
Grid No.1 to Grid No.3	0.12	pF
Grid No.3 to Plate	1.6	pF
Grid No.3 to Cathode, Heater, Plate, Grid No.1, Grid No.2, and Internal Shield	6.5	pF

Class A₁ Amplifier

CHARACTERISTICS

Plate Supply Voltage	150	volts
Grid-No.3 Supply Voltage	0	volts
Grid-No.2 Supply Voltage	100	volts
Grid-No.1 Supply Voltage	0	volts
Cathode-Bias Resistor	180	ohms
Plate Resistance (Approx.)	0.14	megohm
Transconductance, Grid No.1 to Plate	3700	μmhos
Transconductance, Grid No.3 to Plate	750	μmhos
Plate Current	3.7	mA
Grid-No.2 Current	3	mA
Grid-No.3 Supply Voltage (Approx.) for plate current of 20 μA	—7	volts
Grid-No.1 Supply Voltage (Approx.) for plate current of 20 μA	—4.5	volts

Gated AGC Amplifier and Noise Inverter

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

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	300	volts
Peak Positive-Pulse Plate Voltage#	600	volts
Grid-No.3 (Control-Grid) Voltage:		
Negative-bias value	100	volts
Positive-bias value	0	volts
Grid-No.2 (Screen-Grid) Supply Voltage	300	volts
Grid-No.2 Voltage	See curve page 98	
Grid-No.1 (Control-Grid) Voltage:		
Negative-bias value	50	volts
Positive-bias value	0	volts
Plate Dissipation	1.7	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 150 volts	1	watt
For grid-No.2 voltages between 150 and 300 volts	See curve page 98	

MAXIMUM CIRCUIT VALUES

Grid-No.3-Circuit Resistance	0.68	megohm
Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.22	megohm
For cathode-bias operation	0.47	megohm

Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

Refer to chart at end of section.

6GZ5

Refer to chart at end of section.

6H6

Refer to chart at end of section.

6H6GT