

TYPICAL PUSH-PULL OPERATION (Values are for two tubes) Fixed Bias		Cathode Bias	
Plate Supply Voltage	285	285	volts
Grid-No.2 Supply Voltage	285	285	volts
Grid-No.1 Voltage	-25.5	—	volts
Cathode-Bias Resistor	—	400	ohms
Peak AF Grid-No.1-to-Grid-No.1 Voltage	51	51	volts
Zero-Signal Plate Current	55	55	mA
Maximum-Signal Plate Current	72	61	mA
Zero-Signal Grid-No.2 Current	9	9	mA
Maximum-Signal Grid-No.2 Current	17	13	mA
Effective Load Resistance (Plate-to-plate)	12000	12000	ohms
Total Harmonic Distortion	6	4	per cent
Maximum-Signal Power Output	10.5	9.8	watts

CHARACTERISTICS (Triode Connection)*

Plate Voltage	250	volts
Grid-No.1 Voltage	-18	volts
Plate Current	37.5	mA
Transconductance	2700	μmhos
Amplification Factor	6.8	
Plate Resistance (Approx.)	2500	ohms
Grid-No.1 Voltage (Approx.) for plate current of 0.5 mA	-48	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm

* Grid-No.2 connected to plate.

Vertical Deflection Amplifier (Triode Connection)*

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

MAXIMUM RATINGS

DC Plate Voltage	315	volts
Peak Positive-Pulse Plate Voltage# (Absolute maximum)	1200°	volts
Peak Negative-Pulse Grid-No.1 Voltage	250	volts
Peak Cathode Current	75	mA
Average Cathode Current	25	mA
Plate Dissipation	7	watts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance, for cathode-bias operation	2.2	megohms
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* Grid No.2 connected to plate.

Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).

° Under no circumstances should this absolute value be exceeded.

6K7
6K7G
6K7GT

Refer to chart at end of section.

6K8
6K8G
6K8GT

Refer to chart at end of section.

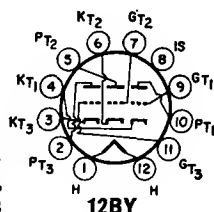
6K11

Refer to chart at end of section.

6K11/
6Q11

THREE-UNIT TRIODE

Duodecar type used as combined agc, sync, and noise-inverter tube in television receivers. Outlines section, 8A; requires duodecar 12-contact socket. Heater: volts



(ac/dc), 6.3 amperes, 0.6; warm-up time (average), 11 seconds; maximum heater-cathode volts, ± 200 peak, 100 average.

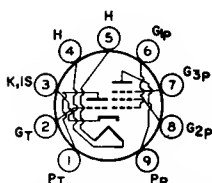
Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Unit No.1	Units Nos.2 and 3	
Plate Voltage	330	330	volts
Grid Voltage:			
Negative-bias value	50	50	volts
Positive-bias value	0	0	volts
Cathode Current	20	—	mA
Plate Dissipation	2.75	0.3	watts

CHARACTERISTICS

Plate Voltage	250	250	volts
Grid Voltage	-8.5	-2	volts
Amplification Factor	17	100	
Plate Resistance (Approx.)	7700	62500	ohms
Transconductance	2200	1600	μ mhos
Plate Current	10.5	1.2	mA
Grid Voltage (Approx.) for plate current of 10 μ A	-24	—	volts



9PV

HIGH-MU TRIODE— SHARP-CUTOFF PENTODE

6KA8 8KA8

Miniature type used in color and black-and-white television receivers. The triode unit is used in sync-separator circuits; the pentode unit has two independent control grids and is used in gated-agc-amplifier and noise-inverter circuits. Outlines section, 6E; requires miniature 9-contact socket. For curves of average plate characteristics for triode unit, refer to type 6AW8A. Type 8KA8 is identical with type 6KA8 except for heater ratings.

	6KA8	8KA8	
Heater Voltage (ac/dc)	6.3	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:			
Triode Unit:			
Grid to Plate		2.2	pF
Grid to Cathode, Heater, and Internal Shield		2.8	pF
Plate to Cathode, Heater, and Internal Shield		2.2	pF
Pentode Unit:			
Grid-No.1 to Plate		0.1 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		9.5	pF
Grid No.1 to Grid No.3		0.5	pF
Grid No.3 to Plate		2.2	pF
Grid No.3 to All Other Electrodes, Heater, and Internal Shield		7	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Unit	
Plate Voltage	300	volts
Grid Voltage:		
Positive-bias value	0	volts
Negative-bias value	50	volts
Plate Dissipation	1.1	watts

CHARACTERISTICS

	Triode Unit	Pentode Unit	
Plate Supply Voltage	200	150	volts
Grid-No.3 Supply Voltage	—	0	volts
Grid-No.2 Supply Voltage	—	100	volts
Grid-No.1 Supply Voltage	-2	0	volts
Cathode-Bias Resistor	—	180	ohms
Amplification Factor	70	—	
Plate Resistance (Approx.)	17500	100000	ohms
Transconductance, Grid No.1 to Plate	4000	4400	μ mhos
Transconductance, Grid No.3 to Plate	—	600	μ mhos
Plate Current	4	4	mA