

	Triode Unit	Beam Power Unit	
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—10	—	volts
Grid-No.1 Voltage (Approx.) for plate current of 100 μ A	—	—25	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.

Vertical-Deflection Oscillator and Amplifier

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

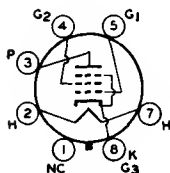
	Triode Unit Oscillator	Beam Power Unit Amplifier	
MAXIMUM RATINGS (Design-Maximum Values)			
DC Plate Voltage	250	250	volts
Peak Positive-Pulse Plate Voltage#	—	2000	volts
DC Grid-No.2 Voltage	—	200	volts
Peak Negative-Pulse Grid-No.1 Voltage	400	150	volts
Peak Cathode Current	70	245	mA
Average Cathode Current	20	70	mA
Plate Dissipation*	1	7	watts
Grid-No.2 Input	—	1.8	watts
MAXIMUM CIRCUIT VALUES			
Grid-No.1-Circuit Resistance:			
For fixed-bias operation	1	1	megohm
For cathode-bias operation	2.2	2.2	megohms

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

* A bias resistor or other means is required to protect the tube in absence of excitation.

Refer to chart at end of section.

6K5GT



7S

POWER PENTODE

6K6GT

Glass octal type used in output stage of radio receivers and, triode-connected, as a vertical-deflection amplifier in television receivers. This type may be supplied with pin No.1 omitted. Outlines section, 13D; requires octal socket. This tube, like other power-handling tubes, should be adequately ventilated.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.4	ampere
Heater-Cathode Voltage:		
Peak value	± 200 max	volts
Average value	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	5.5	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	6	pF

Class A₁ Amplifier

MAXIMUM RATING (Design-Center Values)		
Plate Voltage	315	volts
Grid-No.2 (Screen-Grid) Voltage	285	volts
Plate Dissipation	8.5	watts
Grid-No.2 Input	2.8	watts

TYPICAL OPERATION

Plate Voltage	100	250	315	volts
Grid-No.2 Voltage	100	250	250	volts
Grid-No.1 (Control-Grid) Voltage	—7	—18	—21	volts
Peak AF Grid-No.1 Voltage	7	18	21	volts
Zero-Signal Plate Current	9	32	25.5	mA
Maximum-Signal Plate Current	9.5	33	28	mA
Zero-Signal Grid-No.2 Current	1.6	5.5	4.0	mA
Maximum-Signal Grid-No.2 Current	3	10	9	mA
Plate Resistance (Approx.)	104000	90000	110000	ohms
Transconductance	1500	2300	2100	μ mhos
Load Resistance	12000	7600	9000	ohms
Total Harmonic Distortion	11	11	15	per cent
Maximum-Signal Power Output	0.85	3.4	4.5	watts

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

