Vertical-Deflection Oscillator and Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)	Unit No.1 Oscillator	Unit No.2 Amplifier	
DC Plate Voltage	330	330	volts
Peak Positive-Pulse Plate Voltage#	—	1500	volts
Peak Negative-Pulse Grid Voltage	400	250	volts
Peak Cathode Current	77	175	mA
Average Cathode Current	22	50	mA
Plate Dissipation	1.5	10	watts
MAXIMUM CIRCUIT VALUES			
Grid-Circuit Resistance:			
For cathode-bias operation	2.2	2.2	megohms
For grid-resistor-bias operation	2.2	2.2	megohms

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

Refer to chart at end of section. **6EX6**

Refer to chart at end of section. **6EY6**

Refer to chart at end of section. **6EZ5**

Refer to chart at end of section. **6EZ8**

Refer to chart at end of section. **6F4**

Refer to chart at end of section. **6F5**

Refer to chart at end of section. **6F5GT**

Refer to chart at end of section. **6F6 6F6G 6F6GT**

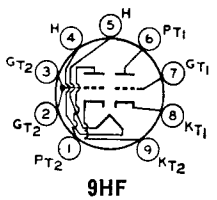
Refer to chart at end of section. **6F7**

Refer to chart at end of section. **6F8G**

Refer to chart at end of section. **6FA7**

6FD7

13FD7



9HF

DUAL TRIODE

Miniature type containing high-mu and low-mu triode units used as combined vertical-deflection oscillator and vertical-deflection amplifier in television receivers. **Outlines section,** 6E; requires miniature 9-contact socket. Type 13FD7 is identical with type 6FD7 except for heater ratings.

	6FD7	13FD7	
Heater Voltage (ac/dc)	6.3	13	volts
Heater Current	0.925	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.):	Unit No.1	Unit No.2	
Grid to Plate	4.5	10	pF
Grid to Cathode and Heater	2.2	6.5	pF
Plate to Cathode and Heater	0.4	0.2	pF

Class A_1 Amplifier

CHARACTERISTICS	Unit No.1	Unit No.2		
Plate Voltage	250	60	150	volts
Grid Voltage	—3	0	—17.5	volts
Amplification Factor	64	—	6	
Plate Resistance (Approx.)	40000	—	800	ohms
Transconductance	1600	—	7500	μmhos
Plate Current	1.5	95*	40	mA
Grid Voltage (Approx.):				
For plate current of 10 μA	—5.5	—	—	volts
For plate current of 100 μA	—	—	—40	volts
Transconductance, For plate current of 1 mA	—	—	500	μmhos
Plate Current, For grid voltage of —25 volts	—	—	6	mA

* 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

MAXIMUM RATINGS (Design-Maximum Values)	Unit No.1 Oscillator	Unit No.2 Amplifier	
DC Plate Voltage	330	330	volts
Peak Positive-Pulse Plate Voltage#	—	1500	volts
Peak Negative-Pulse Grid Voltage	400	250	volts
Peak Cathode Current	70	175	mA
Average Cathode Current	20	50	mA
Plate Dissipation	1.5	10	watts
MAXIMUM CIRCUIT VALUES			
Grid-Circuit Resistance:			
For grid-resistor-bias or cathode-bias operation	2.2	2.2	megohms

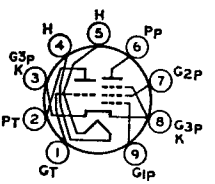
Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).

6FE5 Refer to chart at end of section.

6FG6/EM84 Refer to chart at end of section.

6FG7
5FG7

MEDIUM-MU TRIODE—SHARP-CUTOFF PENTODE



9GF

Miniature type used as combined oscillator and mixer tube in vhf color and black-and-white television receivers. Outlines section, 6B; requires miniature 9-contact socket. Type 5FG7 is identical with type 6FG7 except for heater ratings.

	5FG7	6FG7	
Heater Voltage (ac/dc)	4.7	6.3	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	1.8	1.8	pF
Grid to Cathode, Pentode Grid No.3, and Heater	3	3	pF
Plate to Cathode, Pentode Grid No.3, and Heater	1.3	1.9	pF
Pentode Unit:			
Grid No.1 to Plate	0.02 max	0.01 max	pF
Grid No.1 to Cathode, Grid No.3, Grid No.2, and Heater	5	5	pF
Plate to Cathode, Grid No.3, Grid No.2, and Heater	2.4	3.4	pF
Heater to Cathode, and Pentode Grid No.3	6	6*	pF

• With external shield connected to cathode except as noted.
* With external shield connected to ground.