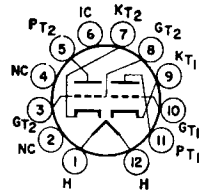
Grid-No.2 Input:			
For grid-No.2 voltages up to 137.5 volts	—	0.45	watt
For grid-No.2 voltages between 137.5 and 275 volts	—	See curve page 300	

TYPICAL OPERATION WITH SEPARATE PLATE OPERATION	Tetrode Unit	
Plates-No.1A, No.1B, and No.2 Voltage	100	volts
Grid-No.2 Voltage	50	volts
Grid-No.1 Voltage	—1	volts
Plate-No.1A Current	0.04	mA
Plate-No.1B Current	0.04	mA
Plate-No.2 Current	1.6	mA
Grid-No.2 Current	0.3	mA
Transconductance (Approx.):		
Grid No.1 to Plate No.1A	70	μmhos
Grid No.1 to Plate No.1B	70	μmhos
Grid No.1 to Plate No.2	2500	μmhos

MAXIMUM CIRCUIT VALUES	Triode Unit	Tetrode Unit	
Grid-No.1-Circuit Resistance, for fixed-bias operation	0.5	0.5	megohm

Refer to chart at end of section. **6FJ7**



12EJ

6FM7

DUAL TRIODE

13FM7/15FM7

Duodecar type used as combined vertical-deflection oscillator and vertical-deflection amplifier in color and black-and-white television receivers. Triode unit No.1 is used as an oscillator, and triode unit No.2 is used as an amplifier. **Outlines section, 8C;** requires duodecar 12-contact socket. Type 13FM7/15FM7 is identical with type 6FM7 except for heater ratings.

	6FM7	13FM7/15FM7	
Heater Voltage (ac/dc)	6.3	13	volts
Heater Current	1.05	0.45	amperes
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Average value	±200 max	±200 max	volts
Peak value	100 max	100 max	volts

Class A_1 Amplifier

CHARACTERISTICS	Unit No.1	Unit No.2	
Plate Voltage	250	175	volts
Grid Voltage	—3	—25	volts
Amplification Factor	66	5.5	
Plate Resistance (Approx.)	30000	920	ohms
Transconductance	2200	6000	μmhos
Plate Current	2	40	mA
Grid Voltage (Approx.) for plate current of 20 μA	—5.3	—	volts
Grid Voltage (Approx.) for plate current of 200 μA	—	—45	volts

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	350	500	volts
Peak Positive-Pulse Plate Voltage#	—	1500	volts
Peak Negative-Pulse Plate Voltage	400	250	volts
Peak Cathode Current	—	175	mA
Average Cathode Current	—	50	mA
Plate Dissipation†	1	10	watts
MAXIMUM CIRCUIT VALUES			
Grid-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.