

# 6FM7

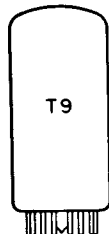
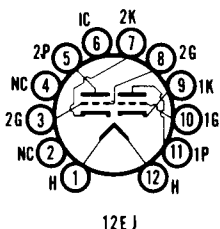
13FM7, 15FM7

Color Television Type

## VERTICAL DEFLECTION OSCILLATOR and AMPLIFIER

### Double Dissimilar Triode

Construction.....Compactron T-9  
 Base .....Button 12 Pin, E12-70  
 Basing .....12EJ  
 Outline .....9-58  
 Maximum Diameter .....1.188 In.  
 Maximum Seated Height .....2.000 In.  
 Maximum Overall Height .....2.375 In.



### ELECTRICAL DATA HEATER OPERATION

	15FM7	13FM7	6FM7
Heater Voltage.....	14.8	13.0	6.3 Volts
Heater Current.....	450	450	1005 Ma
Heater Warm-up Time.....	11	11	— Seconds
Maximum Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
Total DC and Peak.....			200 Volts
Heater Positive with Respect to Cathode			
DC.....			100 Volts
Total DC and Peak.....			200 Volts

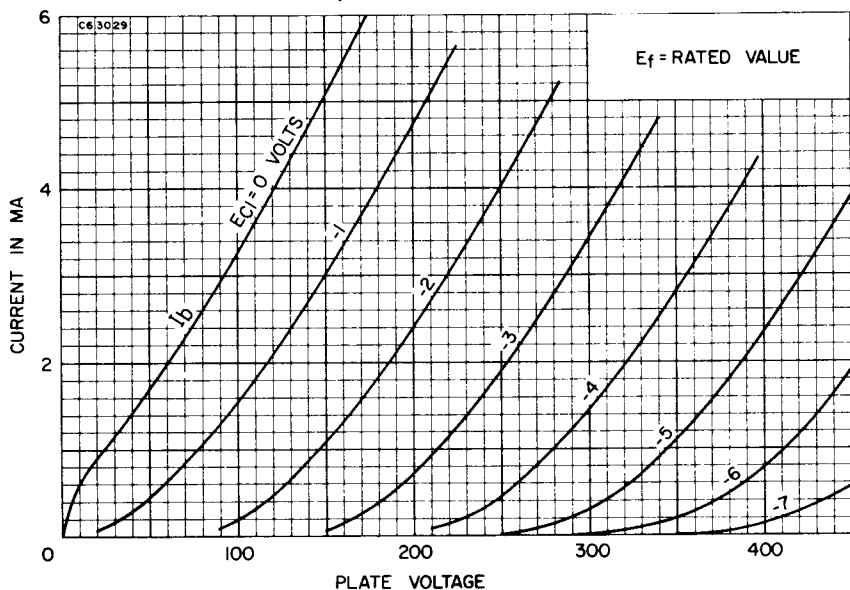
### DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

	Section No. 1	Section No. 2
Grid to Plate.....	4.0	7.0 Pf
Input: g to (h + k).....	2.4	7.0 Pf
Output: p to (h + k).....	0.40	1.1 Pf

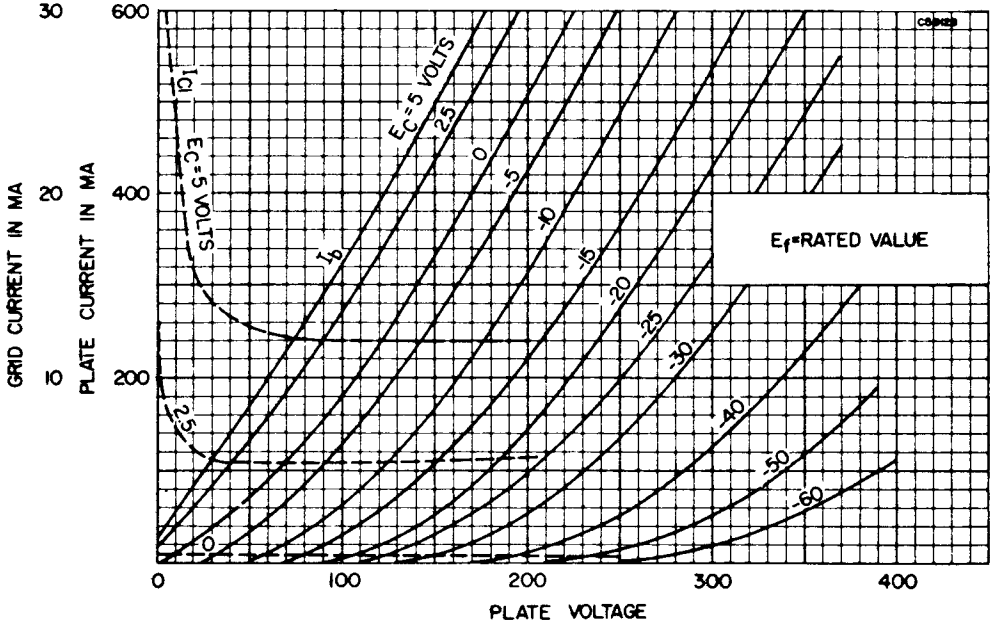
### RATINGS (Design Maximum Rating System) Vertical Deflection Oscillator and Amplifier<sup>(1)</sup>

	Section <sup>(2)</sup> No. 1 Oscillator	Section <sup>(2)</sup> No. 2 Amplifier
Plate Voltage (Max.).....	350	550 Volts
Peak Positive Pulse Plate Voltage (Max.).....	—	1500 Volts
Peak Negative Pulse Grid Voltage (Max.).....	400	250 Volts
Plate Dissipation (Max.) <sup>(3)</sup> .....	1.0	10 Watts
Average Cathode Current (Max.).....	—	50 Ma
Peak Cathode Current (Max.).....	—	175 Ma
Grid Circuit Resistance, Self Bias (Max.).....	2.2	2.2 Megohms

### AVERAGE PLATE CHARACTERISTICS (Section No. 1)



**AVERAGE PLATE CHARACTERISTICS  
(Section No. 2)**



**CHARACTERISTICS AND TYPICAL OPERATION**

	Section No. 1	Section No. 2
Plate Voltage .....	250	175 Volts
Grid No. 1 Voltage .....	-3	-25 Volts
Plate Current .....	2.0	40 Ma
Transconductance .....	2200	6000 $\mu\text{mhos}$
Amplification Factor .....	66	5.5
Plate Resistance (Approx.) .....	30,000	920 Ohms
$E_c$ for $I_b = 20 \mu\text{a}$ (Approx.) .....	-5.3	— Volts
$E_c$ for $I_b = 200 \mu\text{a}$ (Approx.) .....	—	-45 Volts

**NOTES:**

- (1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse not to exceed 15% of one horizontal scanning cycle.
- (2) Section No. 1 connects to Pins 6, 7 and 8. Section No. 2 connects to Pins 1, 2, 3, and 9.
- (3) In stages operating with grid leak bias, an adequate bias resistor or other suitable means is required to protect the tube in the absence of excitation.