

6FM7

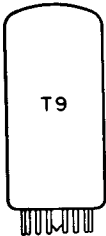
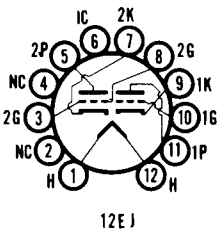
13FM7, 15FM7

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 |

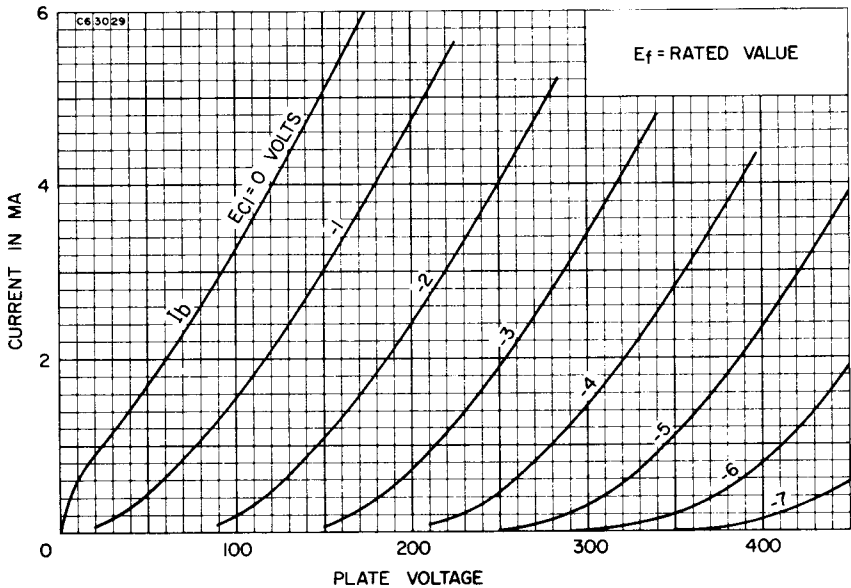
DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

|                            | 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        |

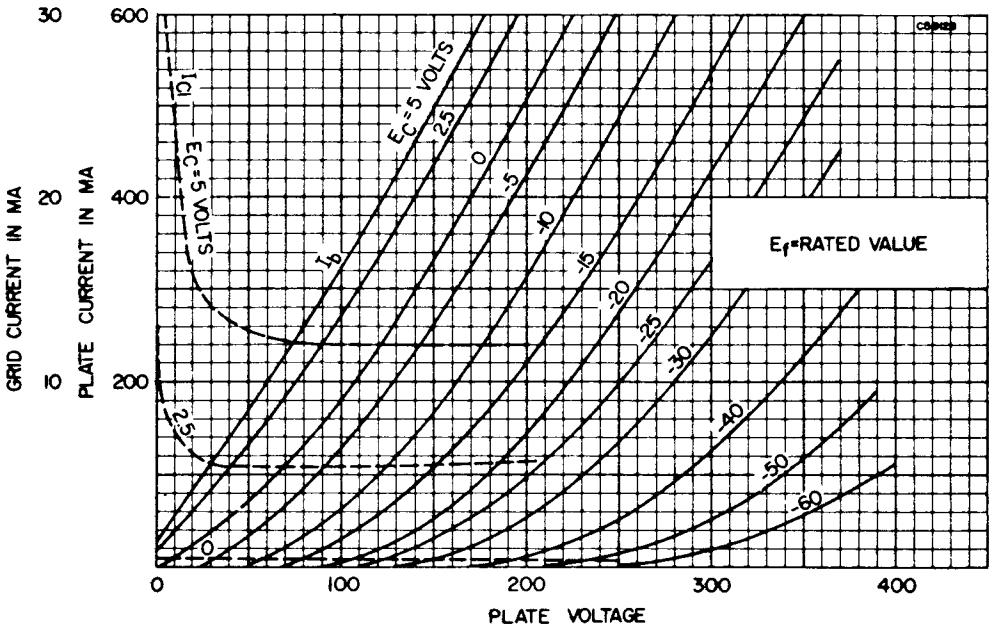
RATINGS (Design Maximum Rating System)  
Vertical Deflection Oscillator and Amplifier<sup>(1)</sup>

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