6FM7

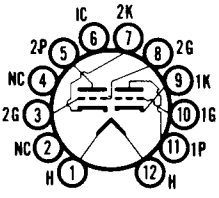
13FM7, 15FM7

Color Television Type

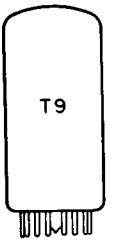
VERTICAL DEFLECTION OSCILLATOR and AMPLIFIER

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.



12E J



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)

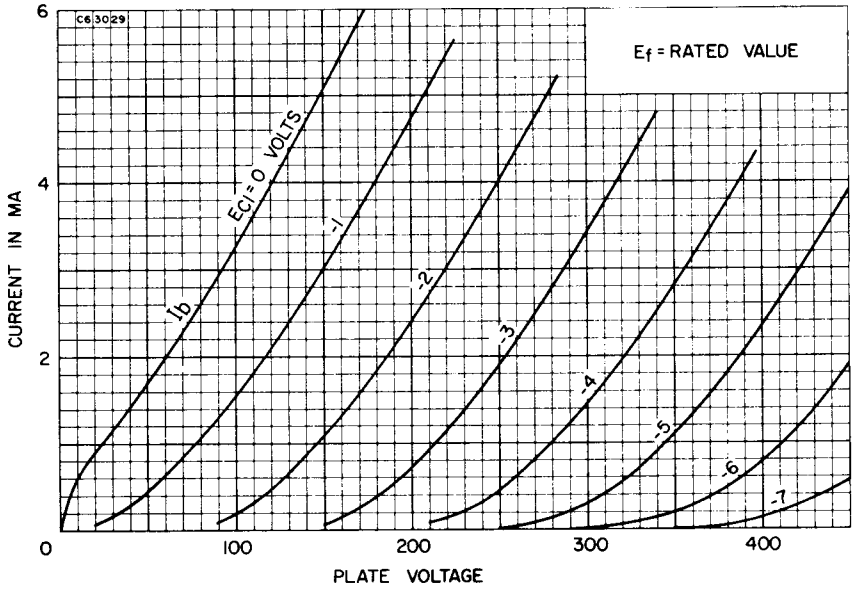
	Section No. 1	Section No. 2
Grid to Plate	4.0	7.0 Pf
Input: g to (h + k)	2.4	7.0 Pf
Output: p to (h + k)	0.40	1.1 Pf

RATINGS (Design Maximum Rating System)

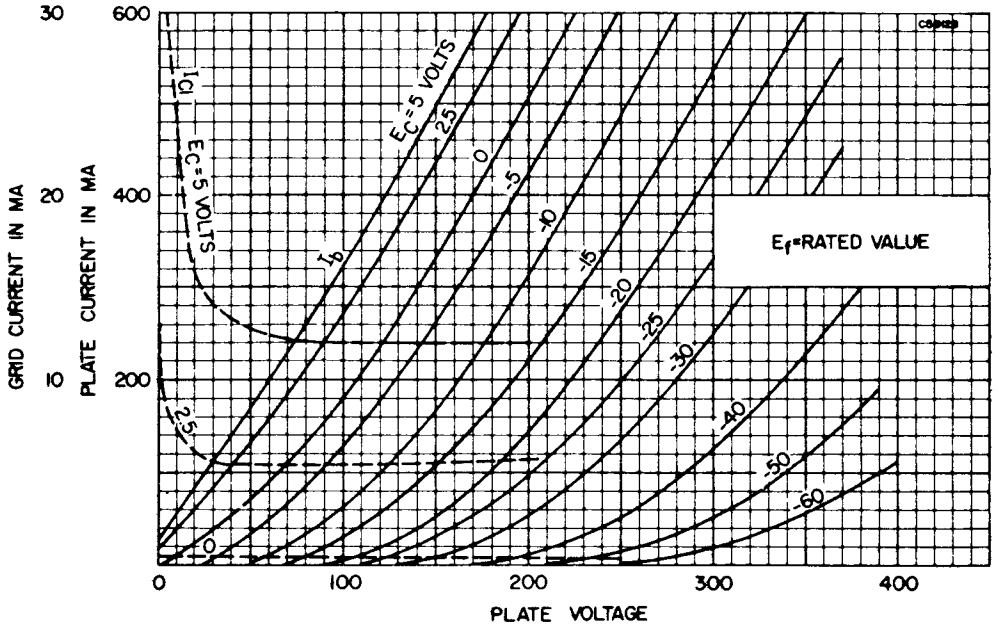
Vertical Deflection Oscillator and Amplifier[1]

	Section[2] No. 1 Oscillator	Section[2] 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.)[3]	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 μmhos
Amplification Factor	66	5.5
Plate Resistance (Approx.)	30,000	920 Ohms
Ec for Ib = 20 μa (Approx.)	−5.3	— Volts
Ec for Ib = 200 μa (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.