

Class A₁ Amplifier

CHARACTERISTICS	Triode* Connection	5000	Pentode Connection	—	volts
Peak Positive-Pulse Plate Voltage#	—	—	—	—	volts
Plate Voltage	125	—	55	175	volts
Grid-No.3 (Suppressor-Grid) Voltage	—	0	30	30	volts
Grid-No.2 (Screen-Grid) Voltage	125	125	125	125	volts
Grid-No.1 (Control-Grid) Voltage	-25	—	0	-25	volts
Plate Resistance (Approx.)	—	—	—	5800	ohms
Transconductance	—	—	—	9600	μmhos
Plate Current	—	—	580 $\frac{1}{2}$	130	mA
Grid-No.2 Current	—	—	40 $\frac{1}{2}$	2.8	mA
Grid-No.1 Voltage for plate current of 1 mA	—	-125	—	-44	volts
Amplification Factor	3.5	—	—	—	—

* Grid No.3 and grid No.2 connected, respectively, to cathode and plate at socket.

† This value may be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

Horizontal-Deflection Amplifier

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

MAXIMUM RATINGS (Design-Maximum Values)

Plate Supply Voltage	990	volts
Peak Positive-Pulse Plate Voltage#	7500	volts
Peak Negative-Pulse Plate Voltage	1100	volts
Grid-No.3 Voltage*	75	volts
Grid-No.2 Voltage	220	volts
Peak Negative-Pulse Grid-No.1 Voltage	330	volts
Peak Cathode Current	1200	mA
Average Cathode Current	350	mA
Plate Dissipation*	30	watts
Plate Dissipation (Temporary overload)†	200	watts
Grid-No.2 Input	5	watts
Envelope Temperature (At hottest point)	250	°C

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance for Cathode Bias (with min. R _k = 100Ω)	1.0	megohm
Grid-leak Bias (with signal peak clamped to zero bias)	10.0	megohms
Fixed Bias (where positive grid current is not drawn)	0.47	megohm

Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

* For horizontal-deflection service, a positive voltage may be applied to grid-No.3 to minimize "snivets" interference in both vhf and uhf television receivers. A typical value is 30 volts.

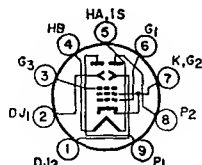
† A bias resistor or other means is required to protect the tube in absence of excitation.

‡ Total continuous or accumulated time not to exceed 40 seconds.

6ME8

TWO-PLATE
BEAM-DEFLECTION TUBE

Miniature type used for color-demodulator applications in color television receivers and a variety of other switching and gate applications. Outlines section, 6E; requires miniature 9-contact socket. Pin 5 should be connected directly to ground. The 6ME8 should be so located in the equipment that it is not subjected to stray magnetic fields.



9RU

Heater Voltage (ac/dc)	5.3	volts
Heater Current	0.3	ampere
Direct Interelectrode Capacitances:		
Grid No.1 to All Other Electrodes Except Plates	7.5	pF
Either Plate to All Other Electrodes	5	pF
Either Deflecting Electrode to All Other Electrodes	6	pF
Plate No.1 to Plate No.2	0.4	pF
Deflecting Electrode No.1 to Deflecting Electrode No.2	0.4	pF
Grid No.1 to Deflecting Electrode No.1	0.07 max	pF
Grid No.1 to Deflecting Electrode No.2	0.1 max	pF

Color TV Demodulator

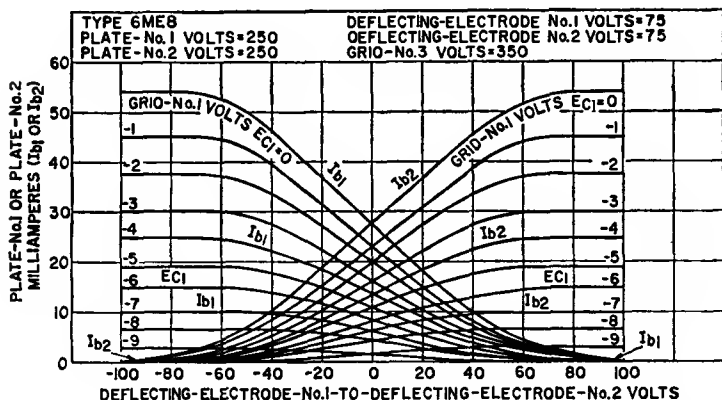
MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage (Each Plate)	400	volts
Peak Deflecting-Electrode Voltage (Each Electrode)	±200	volts
Deflecting-Electrode Voltage (Each Electrode)	100	volts
Grid-No.3 (Accelerating-Grid) Voltage	400	volts
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	volts
Cathode Current	30	mA
Plate Dissipation (Each Plate)	2	watts
Grid-No.3 Input	2	watts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.25	megohm



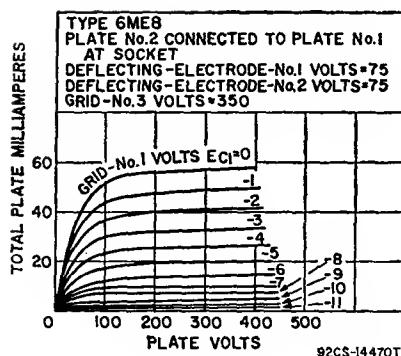
92CM-14471T

Class A₁ Amplifier

CHARACTERISTICS

Plate-No.2 Supply Voltage	250	volts
Plate No.2	Connected to Plate No.1	
Plate-No.1 Supply Voltage	250	volts
Grid-No.3 Supply Voltage	350	volts
Grid-No.1 Supply Voltage	0	volts
Deflecting-Electrode-No.2 Supply Voltage	75	volts
Deflecting-Electrode-No.1 Supply Voltage	75	volts
Cathode-Bias Resistor	390	ohms
Transconductance, Grid No.1 to both plates	4400	μ mhos
Total Plate Current	14.5	mA
Grid-No.3 Current	0.7	mA
Grid-No.1 Voltage for total plate current of 10 μ A	-16	volts
Deflecting-Electrode Switching Voltage*	30 max	volts
Voltage Difference between Deflecting Electrodes for equal plate currents	0	volts
Plate-No.1 Current with Deflecting-Electrode-No.1 Voltage = 55V and Deflecting-Electrode-No.2 Voltage = 95V	1.3 max	mA
Plate-No.2 Current with Deflecting-Electrode-No.1 Voltage = 95V and Deflecting-Electrode-No.2 Voltage = 55V	1.3 max	mA
Deflecting-Electrode-No.1 Current with Deflecting-Electrode-No.1 Voltage = 125V and Deflecting-Electrode-No.2 Voltage = 25V	0.04 max	mA
Deflecting-Electrode-No.2 Current with Deflecting-Electrode-No.1 Voltage = 25V and Deflecting-Electrode-No.2 Voltage = 125V	0.04 max	mA

* Defined as the total voltage change from 75 volts on either deflecting electrode with an equal and opposite change on the other deflecting electrode required to switch the plate current from one plate to the other.

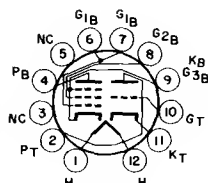


6MF8

15MF8

HIGH-MU TRIODE— BEAM POWER TUBE

Duodecar type used in combined vertical-deflection-oscillator and vertical-deflection-amplifier applications in color television receivers. Outlines section, 15D; requires duodecar 12-contact socket. Type 15MF8 is identical with type 6MF8 except for heater ratings.



12DZ

Heater Voltage	6MF8	15MF8	
Heater Current	6.3	14.7	volts
Heater-Cathode Voltage:	1.4	0.6	amperes
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts

Class A₁ Amplifier

CHARACTERISTICS	Triode Unit	Beam Power Unit	
Plate Voltage	250	60 250	volts
Grid-No.2 (Screen-Grid) Voltage	—	250 250	volts
Grid-No.1 (Control-Grid) Voltage	—4	0 —20	volts
Plate Current	2.6	200 50	mA
Grid-No.2 Current	—	20 3.5	mA
Transconductance	4100	— 4100	μmhos
Amplification Factor	58	—	
Plate Resistance (Approx.)	14000	— 5000	ohms
Grid-No.1 Voltage for plate current of 10 μA	— 6.6	—	volts
Grid-No.1 Voltage for plate current of 100 μA	—	— -65	volts

Vertical-Deflection Oscillator and Amplifier

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

	Triode Unit Oscillator	Beam Power Unit Amplifier	
MAXIMUM RATINGS (Design-Maximum Values)			
Plate Voltage	400	400	volts
Peak Positive Pulse Plate Voltage*	—	2500	volts
Grid-No.2 Voltage	—	300	volts
Peak Negative Grid-No.1 Voltage	400	—	volts
Plate Dissipation*	2.5	12	watts
Grid-No.2 Dissipation*	—	2.75	watts
Average Cathode Current	30	75	mA
Peak Cathode Current	105	260	mA
Peak Power Output	2.5	—	watts
Bulb Temperature	—	200	°C

MAXIMUM CIRCUIT VALUES

Grid Circuit Resistance:			
For fixed-bias operation	—	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.