

Plate Current, for grid voltage of -28 volts	Unit No.1	Unit No.2	
Grid Voltage (Approx.):	—	10	mA
For plate current of 10 μ A	-5.5	—	volts
For plate current of 100 μ A	—	-45	volts

Vertical-Deflection Oscillator and Amplifier

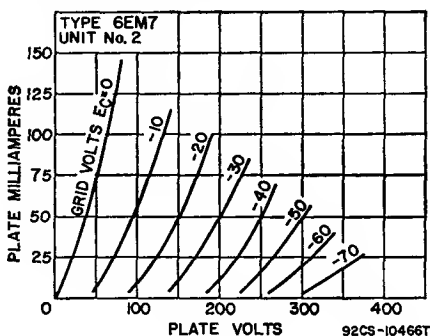
For operation in a 525-line, 30-frame system

	Unit No.1 Oscillator	Unit No.2 Amplifier	
MAXIMUM RATINGS (Design-Maximum Values)			
DC Plate Voltage	330	330	volts
Peak Positive-Pulse Plate Voltage#	—	1500	volts
Peak Negative-Pulse Grid Voltage	400	250	volts
Peak Cathode Current	77	175	mA
Average Cathode Current	22	50	mA
Plate Dissipation	1.5	10	watts

MAXIMUM CIRCUIT VALUES

	Unit No.1	Unit No.2	
Grid-Circuit Resistance:			
For grid-resistor-bias operation	2.2	2.2	megohms
For cathode-bias operation	2.2	2.2	megohms

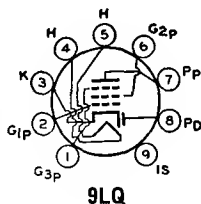
Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).

**6EQ7**

12EQ7

**DIODE—
REMOTE-CUTOFF PENTODE**

Miniature type used as combined if amplifier and AM detector in AM and AM/FM radio receivers. Outlines section, 6E; requires miniature 9-contact socket. Type 12EQ7 is identical with type 6EQ7 except for heater ratings.



	6EQ7	12EQ7	
Heater Voltage (ac/dc)	6.3	12.6	volts
Heater Current	0.3	0.15	ampere
Heater-Cathode Voltage:			
Peak value	± 200 max	± 200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
Pentode Unit:			
Grid No.1 to Plate		0.002 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		5.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		5	pF
Pentode Grid No.1 to Diode Plate		0.0015 max	pF
Pentode Plate to Diode Plate		0.095	pF

Pentode Unit as Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)		
Plate Voltage	300	volts
Grid-No.3 (Suppressor-Grid) Voltage:		
Positive value	300	volts
Negative value	300	volts

Grid-No.2 (Screen-Grid) Supply Voltage	300	volts
Grid-No.2 Voltage	See curve page 98	
Grid-No.1 (Control-Grid) Voltage:		
Positive-bias value	0	volts
Negative-bias value	50	volts
Plate Dissipation	3	watts
Grid-No.3 Input	0.2	watt
Grid-No.2 Input:		
For grid-No.2 voltages up to 150 volts	0.6	watt
For grid-No.2 voltages between 150 and 300 volts	See curve page 98	
Bulb Temperature (At hottest point)	150	°C

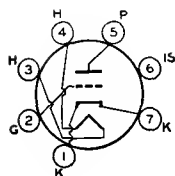
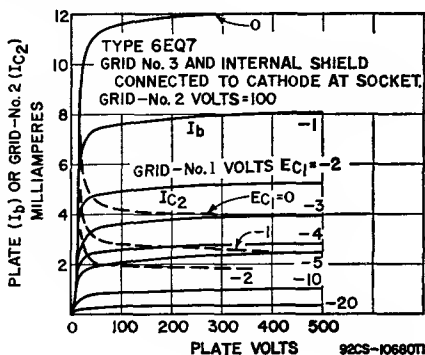
CHARACTERISTICS

Plate Voltage	100	volts
Grid No.3	Connected to cathode at socket	
Internal Shield	Connected to cathode at socket	
Grid-No.2 Voltage	100	volts
Grid-No.1 Supply Voltage	0	volts
Grid-No.1 Resistor (Bypassed)	2.2	megohms
Plate Resistance (Approx.)	0.25	megohm
Transconductance	3800	μ mhos
Plate Current	9	mA
Grid-No.2 Current	3.5	mA
Grid-No.1 Voltage (Approx.) for transconductance of 40 μ mhos	-20	volts

Diode Unit

MAXIMUM RATINGS (Design-Maximum Values)

Plate Current	1	mA
CHARACTERISTICS, Instantaneous Value		
Tube Voltage Drop for plate current of 2 mA	10	volts



7FP

HIGH-MU TRIODE

6ER5

2ER5, 3ER5

Miniature type with frame grid used in vhf tuners of color and black-and-white television receivers. Outlines section, 5C; requires miniature 7-contact socket. Types 2ER5 and 3ER5 are identical with type 6ER5 except for heater ratings.

Heater Voltage (ac/dc)	2.3	2.8	6.3	volts
Heater Current	0.6	0.45	0.18	ampere
Peak Heater-Cathode Voltage	± 100 max	± 100 max	± 100 max	volts
Direct Interelectrode Capacitances:				
	Unshielded		Shielded ^o	
Grid to Plate	0.38		0.36	pF
Grid to Cathode, Heater, and Internal Shield	4.4		4.4	pF
Plate to Cathode, Heater, and Internal Shield	3		4	pF
Grid to Heater	0.28 max		0.28 max	pF
Plate to Cathode	0.24		0.24	pF
Cathode to Grid	3.1		3.1 Δ	pF
Heater to Cathode	2.5		2.5 Δ	pF

^o With external shield connected to cathode except as noted.

Δ With external shield connected to ground.