

DIRECT INTERELECTRODE CAPACITANCES (Shielded)

Grid to Plate	1.8 Pf
Input: g to (h + k + ES)	2.2 Pf
Output: p to (h + k + ES)	1.3 Pf

RATINGS (Design Maximum Rating System)

UHF Oscillator Service

Plate Voltage (Max.)	135 Volts
Plate Dissipation (Max.)	2.3 Watts
Negative Grid Voltage (Max.)	50 Volts
Grid Current (Max.)	2 Ma
Cathode Current (Max.)	20 Ma

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Supply Voltage	80 Volts
Plate Resistor	2700 Ohms
Plate Current	15 Ma
Transconductance	6700 μ mhos
Amplification Factor	14
Plate Resistance (Approx.)	2000 Ohms
E_c for $I_b = 20 \mu a$ (Approx.)	-11 Volts

Oscillator at 1000 MHz⁽¹⁾

Plate Supply Voltage	135 Volts
Plate Resistor	2700 Ohms
Grid Resistor	10,000 Ohms
Plate Current	15.5 Ma
Grid Current (Approx.)	800 μa

NOTE:

(1) Measured in JEDEC Standard Oscillator No. 400.

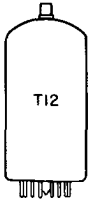
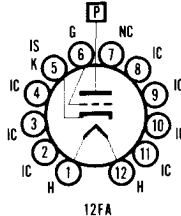
Color Television Type

SHUNT REGULATOR

6EA4

Beam Triode

Construction	Compactron T-12
Base	Button 12 Pin, E12-74
Top Cap	C1-34
Basing	12FA
Outline	12-90
Maximum Diameter	1.563 In.
Maximum Seated Height	4.000 In.
Maximum Overall Height	4.375 In.



ELECTRICAL DATA

HEATER OPERATION

Heater Voltage	6.3 Volts
Heater Current	200 Ma
Maximum Heater-Cathode Voltage	
Heater Positive with Respect to Cathode	Not Recommended
Heater Negative with Respect to Cathode	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid to Plate	0.036 Pf
Input: g to (h + k)	1.9 Pf
Output: p to (h + k)	0.63 Pf

RATINGS (Design Maximum Rating System)

Plate-Supply Voltage, Unregulated (Max.)	60,000 Volts
Plate Voltage (Max.)	27,000 Volts
Negative DC Grid Voltage (Max.)	135 Volts
Peak Negative Grid Voltage (Max.) ⁽¹⁾	440 Volts
Plate Dissipation (Max.)	30 Watts
DC Plate Current (Max.)	1.6 Ma
Grid Circuit Resistance (Max.) ⁽²⁾	3.0 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

Shunt Voltage Regulator Service

Unregulated DC Supply Voltage	36,000 Volts
Equivalent Resistance of Unregulated Supply	11 Megohms
DC Reference Voltage	200 Volts
Equivalent Resistance of Reference Supply	1000 Ohms
Effective Grid-Plate Transconductance	200 μ mhos
DC Plate Current for Zero Load Current	1000 μa

DC Plate Current for Load Current of 1 Ma	45 μ a
Regulated DC Output Voltage at Zero Load Current	25,000 Volts
Regulated DC Output Voltage at Load Current of 1 Ma.....	24,500 Volts

NOTES:

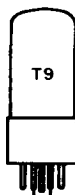
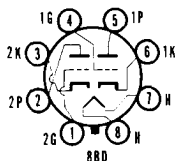
- (1) Peak value for duration of 20 seconds maximum during equipment warm-up.
 (2) With flyback transformer high-voltage supply.

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated higher than 16,000 volts.

6EA7**15EA7****VERTICAL DEFLECTION
OSCILLATOR and AMPLIFIER****Double Dissimilar Triode**

Construction	T-9
Base	B8-6 or B8-251
Basing	.8BD
Outline	9-5
Maximum Diameter	1.281 In.
Maximum Seated Height	2.439 In.
Maximum Overall Height	3.000 In.

**ELECTRICAL DATA****HEATER OPERATION**

	15EA7	6EA7
Heater Voltage.....	14.8	6.3 Volts
Heater Current	450	1050 Ma
Heater Warm-up Time	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⁽³⁾	Section No. 2
Grid to Plate	4.0	8 Pf
Input: g to (h + k)	2.2	6 Pf
Output: p to (h + k)	0.6	1.3 Pf

RATINGS (Design Maximum Rating System)**Vertical Deflection Oscillator and Amplifier⁽¹⁾**

	Section No. 1⁽³⁾ Oscillator	Section No. 2 Amplifier
DC Plate Voltage (Max.)	350	550 Volts
Peak Positive Pulse Plate Voltage (Abs. Max.).....	—	1500 Volts
Peak Negative Pulse Grid Voltage (Max.)	400	250 Volts
Plate Dissipation (Max.) ⁽²⁾	1.0	10 Watts
Average Cathode Current (Max.).....	22	50 Ma
Peak Cathode Current (Max.)	77	175 Ma
Grid Circuit Resistance		
Fixed Bias (Max.)	1.0	1.0 Megohm
Self Bias (Max.)	2.2	2.2 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

	Section No. 1⁽³⁾	Section No. 2
Plate Voltage	250	175 Volts
Grid No. 1 Voltage	-3	-25 Volts
Plate Current	2.0	40 Ma
Transconductance	2200	6000 μ mhos
Amplification Factor	66	5.5
Plate Resistance (Approx.)	30,000	920 Ohms
Ec for Ib = 20 μ a (Approx.).....	-5.3	— Volts
Ec for Ib = 200 μ a (Approx.).....	—	-45 Volts

INSTANTANEOUS ZERO BIAS PLATE VALUES (Section No. 2)

Eb = 60 V, Ec = 0

Ib = 100 Ma