

UHF Oscillator

MAXIMUM RATINGS (Design-Maximum Values)

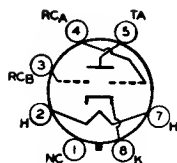
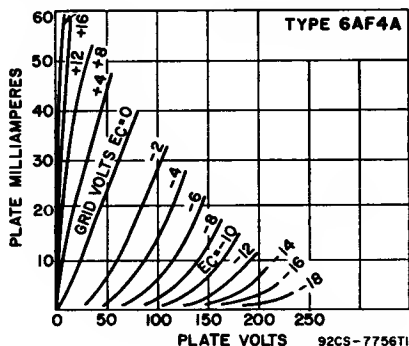
Plate Voltage	150	volts
Grid Voltage, Negative-bias value	50	volts
Grid Current	2	mA
Plate Dissipation	2.5	watts
Average Cathode Current	24	mA

TYPICAL OPERATION AS OSCILLATOR AT 1000 MHz

Plate Supply Voltage	100	volts
Plate Resistor	220	ohms
Grid Resistor	10000	ohms
Plate Current	17	mA
Grid Current (Approx.)	750	μ A

MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:		
For fixed-bias operation		Not recommended
For cathode-bias operation	0.5	megohm

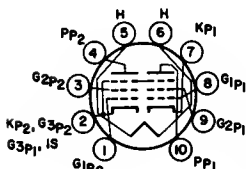


7AG

socket. Heater: volts (ac/dc), 6.3; amperes, 0.15. Maximum ratings in indicator service: fluorescent-target volts, 250 max, 125 min; ray-control-electrode supply volts, 250 max; peak heater-cathode volts, 90 max. Typical operation: fluorescent-target volts, 250; fluorescent-target mA, 3.75; ray-contact-electrode volts (approx. for 0° shadow angle), 155; ray-control-electrode volts (approx. for 100° shadow angle), 0.

ELECTRON-RAY TUBE

6AF6G



10L

DUAL PENTODE

6AF9

Miniature type used in television receiver applications. Unit No.1 is used as a video output pentode, and unit No.2 as a sound if amplifier, age amplifier, or sync separator. Outlines section, 6L, except has 10-pin base; requires miniature 10-contact socket.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.85	ampere
Peak Heater-Cathode Voltage	± 200 max	volts

Direct Interelectrode Capacitances:

	Unit No.1	Unit No.2	
Plate to All Other Electrodes (except grid No.1)	7	11	pF
Grid No.1 to All Other Electrodes (except plate)	12	10	pF
Plate to Grid No.1	0.105	0.140	pF
Grid No.1 to Heater	—	0.140	pF
Plate of Unit No.1 to Plate of Unit No. 2	0.150	max	pF
Grid No.1 of Unit No.1 to Grid No.1 of Unit No. 2	0.010	max	pF
Plate of Unit No.1 to Grid No.1 of Unit No.2	0.100	max	pF
Plate of Unit No.2 to Grid No.1 of Unit No.1	0.005	max	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Unit No.1	Unit No.2	
Plate Supply Voltage	550	550	volts
Plate Voltage	250	250	volts
Grid-No.2 (Screen-Grid) Supply Voltage	550	550	volts
Grid-No.2 Voltage	250	250	volts
Cathode Current	60	15	mA
Plate Dissipation	5.1	1.5	watts
Grid-No.2 Input	2.5	0.5	watts

CHARACTERISTICS

Plate Voltage	170	150	volts
Grid-No.2 Voltage	170	150	volts
Grid-No.1 (Control-Grid) Voltage	-2.6	-2.1	volts
Mu Factor, Grid No.1 to Grid No.2	38	38	
Internal Resistance	0.032	0.16	megohm
Transconductance	22000	8500	μmhos
Plate Current	30	10	mA
Grid-No.2 Current	7.2	3	mA

MAXIMUM CIRCUIT VALUES

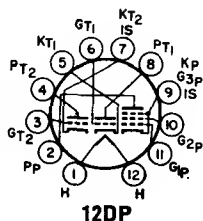
Grid-No.1-Circuit Resistance	1	1	megohm
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6AF11

15AF11

DUAL TRIODE—
SHARP-CUTOFF PENTODE

Duodecar type used in television receiver applications. The high-mu triode unit is used for agc keyer service, the medium-mu triode unit for sync separator service, and the pentode unit for video amplifier service. Outlines section, 8C; requires duodecar 12-contact socket. Type 15AF11 is identical with type 6AF11 except for heater ratings.



	6AF11	15AF11	
Heater Voltage (ac/dc)	6.3	14.7	volts
Heater Current	1.05	0.45	amperes
Heater Warm-up Time (Average)	—	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Unit No.1	Triode Unit No.2	Pentode Unit	
Plate Voltage	330	330	330	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	—	330	volts
Grid-No.2 Voltage	—	—	See curve page 98	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	0	volts
Plate Dissipation	1.1	2	5	watts
Grid-No.2 Input:				
For grid-No.2 voltages up to 165 volts	—	—	1.25	watts
For grid-No.2 voltages between 165 and 330 volts	—	—	See curve page 98	

CHARACTERISTICS

Plate Supply Voltage	200	200	250	volts
Grid-No.2 Supply Voltage	—	—	150	volts
Grid-No.1 Voltage	-2	—	—	volts
Cathode-Bias Resistor	—	220	100	ohms
Amplification Factor	68	41	—	
Plate Resistance (Approx.)	12400	9400	68000	ohms
Transconductance	5500	4400	11000	μmhos
Plate Current	7	9.2	24	mA