

Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield .....	3.2	pF
Pentode Grid No.1 to Triode Plate .....	0.012 max	pF
Pentode Plate to Triode Plate .....	0.24 max	pF

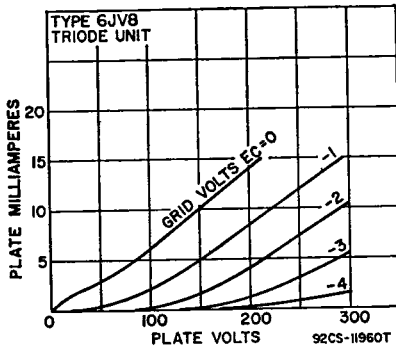
**Class A<sub>1</sub> Amplifier**

MAXIMUM RATINGS (Design-Maximum Values)		Triode Unit	Pentode Unit		
Plate Voltage .....		330	330	volts	
Grid-No.2 (Screen-Grid) Voltage .....		—	330	volts	
Grid-No.1 (Control-Grid) Voltage:					
Positive-bias value .....		0	0	volts	
Negative-bias value .....		50	50	volts	
Plate Dissipation .....		1.1	4	watts	
Grid-No.2 Input .....		—	1.7	watts	
CHARACTERISTIC		Triode Unit	Pentode Unit		
Plate Voltage .....	200	60	125	200	volts
Grid-No.2 Voltage .....	—	200	125	200	volts
Grid-No.1 Voltage .....	-2	0	-1	-2.9	volts
Amplification Factor .....	70	—	—	—	
Plate Resistance (Approx.) .....	0.0175	—	0.1	0.15	megohm
Transconductance (Approx.) .....	4000	—	11500	10700	μmhos
Plate Current .....	4	51*	22	22	mA
Grid-No.2 Current .....	—	14*	4	4	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μA .....	-5	—	-5.5	-9	volts

**MAXIMUM CIRCUIT VALUES**

Grid-No.1-Current Resistance:				
For fixed-bias operation .....		0.5	0.25	megohm
For cathode-bias operation .....		1	1	megohm

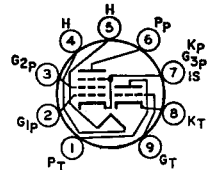
\* This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.



**6JW8/  
ECF802**

5JW8  
6LX8/LCF802  
9JW8/PCF802

**MEDIUM-MU TRIODE—  
SHARP-CUTOFF PENTODE**



9AE

Miniature type used as horizontal-oscillator and frequency-control tube in color and black-and-white television receivers. Outlines section, 6B; requires miniature 9-contact socket. Types 5JW8, 6LX8/LCF802 and 9JW8/PCF802 are identical with type 6JW8/ECF802 except for heater ratings.

	5JW8	6JW8/ ECF802	6LX8/ LCF802	9JW8/ PCF802	
Heater Voltage (ac/dc) ..	4.7	6.3	6	9	volts
Heater Current .....	0.6	0.43	0.45	0.3	ampere
Heater Warm-up Time (Average) .....	11	—	—	—	seconds
Heater-Cathode Voltage:					
Peak value .....	±200 max	±200 max	±200 max	±200 max	volts
Average value .....	100 max	100 max	100 max	100 max	volts

**Class A<sub>1</sub> Amplifier**

**MAXIMUM RATINGS (Design-Maximum Values)**

	Triode Unit	Pentode Unit	
Plate Supply Voltage	550	550	volts
Plate Voltage	250	250	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	550	volts
Grid-No.2 Voltage	—	250	volts
Peak Cathode Current*	—	50	mA
Cathode Current	10	15	mA
Plate Dissipation	1.4	1.2	watts
Grid-No.2 Input	—	0.8	watts
Input Impedance at 60 Hz	50	300	kohms

**CHARACTERISTICS**

Plate Voltage	200	100	volts
Grid-No.2 Voltage	—	100	volts
Grid-No.1 (Control-Grid) Voltage	-2	-1	volts
Mu Factor, Grid-No.1 to Grid-No.2	—	47	—
Amplification Factor	70	—	—
Input Resistance	0.2	0.4	megohm
Transconductance	3500	5500	μmhos
Plate Current	3.5	6	mA
Grid-No.2 Current	—	1.7	mA
Plate Current:			
For grid-No.1 voltage of 0 volts	—	12.5	mA
For grid current of 10 μA	10	—	mA
Grid-No.2 Current for grid-No.1 voltage of 0 volts	—	3.5	mA
Grid-No.1 Voltage:			
For grid-No.1 current of +0.3 μA	-1.3	-1.3	volts
For plate and grid-No.2 voltage of 200 volts and plate current of 10 μA	—	-16	volts

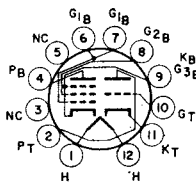
**MAXIMUM CIRCUIT VALUES**

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	—	0.56	megohm
For cathode-bias operation	3	1	megohms

\* With a maximum duty factor of 0.30 and maximum pulse duration of 30 microseconds.

Refer to chart at end of section.

**6JZ6**



**12DZ**

heater ratings.

**MEDIUM-MU TRIODE—  
POWER PENTODE**

**6JZ8**

13JZ8, 17JZ8, 24JZ8,  
25JZ8

Duodecaode type used in combined vertical-deflection-oscillator and vertical-deflection-amplifier applications in television receivers. Outlines section, 8C; requires duodecaode 12-contact socket. Types 13JZ8, 17JZ8, 24JZ8, and 25JZ8 are identical with type 6JZ8 except for

	6JZ8	13JZ8	17JZ8	24JZ8	25JZ8	
Heater Voltage (ac/dc)	6.3	12.7	16.8	24.2	25.2	volts
Heater Current	1.2	0.6	0.45	0.315	0.3	amperes
Heater Warm-up Time	—	11	11	11	—	seconds
Heater-Cathode Voltage:						
Peak value	±200 max	±200 max	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	100 max	100 max	volts

**Class A<sub>1</sub> Amplifier**

**CHARACTERISTICS**

	Triode Unit	Beam Power Unit		
Plate Voltage	150	45	120	volts
Grid-No.2 (Screen-Grid) Voltage	—	110	110	volts
Grid-No.1 (Control-Grid) Voltage	-5	0	-8	volts
Amplification Factor	20	—	—	—
Plate Resistance (Approx.)	8500	—	11700	ohms
Transconductance	2350	—	7100	μmhos
Plate Current	5.5	122*	46	mA
Grid-No.2 Current	—	16.5*	3.5	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μA	-10	—	—	volts