

Plate of Unit No.1 to Plate of Unit No.2	0.015	pF
Grid No.1 of Unit No.1 to Plate of Unit No.2	0.002	pF
Grid No.1 of Unit No.2 to Plate of Unit No.1	0.008	pF
Grid No.1 of Unit No.1 to Grid No.1 of Unit No.2	0.002	pF

Class A₁ Amplifier**MAXIMUM RATINGS (Design-Maximum Values)**

	Unit No.1	Unit No.2	
Plate Voltage	330	330	volts
Grid-No.3 (Suppressor-Grid) Voltage	0	0	volts
Grid-No.2 (Screen-Grid) Supply Voltage	330	330	volts
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	See curve	page 98	
Plate Dissipation	0	0	volts
Grid-No.2 Input:	3.1	3.1	watts
For grid-No.2 voltages up to 165 volts	0.65	0.65	watt
For grid-No.2 voltages between 165 and 330 volts	See curve	page 98	

CHARACTERISTICS

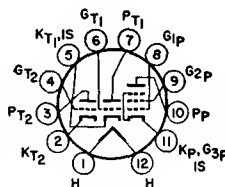
Plate Supply Voltage	125	125	volts
Grid-No.3	Connected to cathode at socket		
Grid-No.2 Voltage	125	125	volts
Cathode-Bias Resistor	56	56	ohms
Plate Resistance (Approx.)	0.2	0.2	megohm
Transconductance	10500	13000	μmhos
Plate Current	11	11	mA
Grid-No.2 Current	3.5	3.8	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μA	—	—3	volts
Grid-No.1 Voltage (Approx.) for transconductance of 50 μmho	—15	—	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance, for cathode-bias operation	1	0.25	megohm
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8BU11**MEDIUM-MU TWIN TRIODE—
SHARP-CUTOFF PENTODE**

Duodecar type used in television receiver applications. Outlines section, 8C; requires duodecar 12-contact socket. Heater: volts (ac/dc), 7.8; amperes, 0.6; warm-up time, 11 seconds, maximum heater-cathode volts, ±200 peak, 100 average.

**12FP****Class A₁ Amplifier****MAXIMUM RATINGS (Design-Maximum Values)**

	Pentode Unit	Each Triode Unit	
Plate Voltage	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	volts
Plate Dissipation	2.5	1.8	watts
Grid-No.2 Input:	0.55	—	watt
For grid-No.2 voltages up to 165 volts	See curve	page 98	
For grid-No.2 voltages between 165 and 330 volts	See curve	page 98	

CHARACTERISTICS

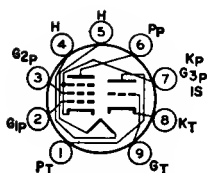
Plate Supply Voltage	125	125	volts
Grid-No.2 Voltage	125	—	volts
Grid-No.1 Voltage	—1	—	volts
Cathode-Bias Resistor	—	68	ohms
Amplification Factor	—	43	
Plate Resistance (Approx.)	200000	50000	ohms
Transconductance	7500	8600	μmhos
Plate Current	12	13.5	mA
Grid-No.2 Current	4	—	mA
Grid Voltage (Approx.) for plate current of 100 μA	—	—8	volts
Grid-No.1 Voltage (Approx.) for plate current of 30 μA	—8	—	volts

MAXIMUM CIRCUIT VALUES

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

Refer to type 6CN7.
 Refer to type 6CS7.
 Refer to type 6CW5/EL86.
 Refer to type 6CW5.
 Refer to type 6CX8.
 Refer to type 6EB8.
 Refer to type 6EM5.
 Refer to type 6ET7.
 Refer to chart at end of section.
 Refer to type 6FQ7/6CG7.
 Refer to chart at end of section.
 Refer to type 6GJ7/ECF801.
 Refer to type 6GN8.
 Refer to type 6GU7.
 Refer to type 6JU8A.
 Refer to type 6JV8.
 Refer to type 6KA8.
 Refer to type 6LC8.
 Refer to type 6LT8.
 Refer to chart at end of section.

8CN7
 8CS7
 8CW5/XL86
 8CW5
 8CX8
 8EB8
 8EM5
 8ET7
 8FQ7
 8FQ7/8CG7
 8GJ7
 8GJ7/PCP801
 8GN8
 8GU7
 8JU8A
 8JV8
 8KA8
 8LC8
 8LT8
 9A8



MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

9A8/ PCF80

9DC Miniature type used as combined oscillator and mixer tubes in vhf color and black-and-white television receivers. Outlines section, 6B; requires miniature 9-contact socket. Heater: volts (ac/dc), 9; amperes, 0.3; maximum heater-cathode volts, +100, -200 peak; -120 average.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)			
	Triode Unit	Pentode Unit	
Plate Supply Voltage	550	550	volts
Plate Voltage	250	250	volts
Grid-No.2 (Screen-Grid) Voltage	—	175	volts
Cathode Current	14	14	mA
Plate Dissipation	1.5	1.7	watts
Grid-No.2 Input	—	0.5	watt
CHARACTERISTICS			
Plate Voltage	100	170	volts
Grid-No.2 Voltage	—	170	volts
Grid-No.1 Voltage	-2	-2	volts
Amplification Factor	20	47*	
Plate Resistance (Approx.)	—	0.4	megohm
Transconductance	5000	6200	μmhos
Plate Current	14	10	mA
Grid-No.2 Current	—	2.8	mA