

Full-Wave Rectifier

MAXIMUM RATINGS (Design-Maximum Values)

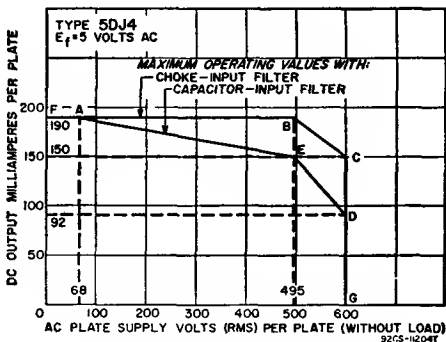
Peak Inverse Plate Voltage	1700	volts
Peak Plate Current (Per Plate)	1	ampere
Hot-Switching Transient Plate Current (Per Plate)	5	amperes
AC Plate-Supply Voltage (Per Plate, rms, without load)	See Rating Chart	
Average Output Current (Per Plate)	See Rating Chart	

TYPICAL OPERATION

Filter Input	Capacitor		Choke	
AC Plate-to-Plate Supply Voltage (rms, without load)	600	900	1100	volts
Filter-Input Capacitor	40	40	—	μ F
Filter-Input Choke	—	—	10	henries
Effective Plate-Supply Impedance per Plate	21	67	—	ohms
DC Output Voltage at Input to Filter (Approx.)	290	460	420	volts
Average Output Current	300	275	275	mA

• When capacitor values greater than 40 μ F are used, the effective plate-supply impedance should be increased so that the maximum rating for peak plate current is not exceeded.

RATING CHART



5EA8

Refer to type 6EA8.

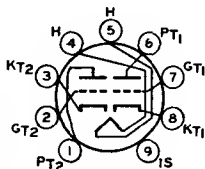
5ES8

5ES8/

YCC189

VARIABLE-MU TWIN TRIODE

Miniature type used as cascode-type amplifier in tuners of television receivers. Outlines section, 6B; requires miniature 9-contact socket. Heater: volts (ac/dc), 5.6; amperes, 0.45.



9AJ

Class A₁ Amplifier (Each Unit)

CHARACTERISTICS

Plate Voltage	90	90	90	volts
Grid Voltage	-1.4	-5	-9	volts
Plate Resistance	2500	—	—	ohms
Transconductance	12500	625	125	μ mhos
Plate Current	15	—	—	mA

Cascode-Type Amplifier (Each Unit)

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage with plate current of 0 mA	550	volts
Plate Voltage	130	volts
Grid Voltage, Negative-bias value	50	volts
Cathode Current	22	mA
Plate Dissipation	1.8	watts
Heater-Cathode Voltage:		
Grounded-cathode section ^A	80	volts
Grounded-grid section (cathode positive) ^B	180*	volts

MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:

Grounded-cathode section	1	megohm
Grounded-grid section	0.5	megohm

* The dc component must not exceed 130 volts.

† Pins 6, 7, and 8.

• Pins 1, 2, and 3.

Refer to type 6EU8.

Refer to type 6EW6.

Refer to type 6FG7.

Refer to type 6FV8A.

Refer to type 6GH8A.

Refer to type 6GJ7/ECF801.

Refer to type 6GM6.

5EU8

5EW6

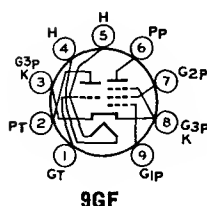
5FG7

5FV8

5GH8A

5GJ7

5GM6



9GF

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

5GS7

Miniature type used as frequency changer in vhf television tuners. Outlines section, 6B; requires miniature 9-contact socket. Heater: volts, 5.4; amperes 0.45; maximum heater-cathode volts, ± 100 .

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)

	Triode Unit	Pentode Unit	
Plate Voltage	125	250	volts
Grid-No.2 Input	—	150	volts
Cathode Current	15	18	mA
Plate Dissipation	1.5	2	watts
Grid-No. 2 Input	—	0.5	watt

CHARACTERISTICS

Plate Voltage	100	170	volts
Grid-No.2 Voltage	—	150	volts
Grid-No.1 (Control-Grid) Voltage	—3	—1.2	volts
Plate Resistance	—	0.35 min	megohm
Transconductance	5500	12000	megohm
Plate Current	14	10	mA
Grid-No.2 Current	—	3.3	mA
Amplification Factor	17	—	

MAXIMUM CIRCUIT VALUES

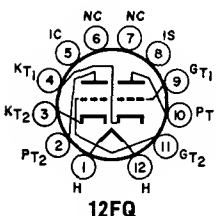
	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance	0.5	—	megohm
For fixed-bias operation	—	0.25	megohm
For automatic-bias operation	—	0.5	megohm

Refer to chart at end of section.

5GX6

Refer to chart at end of section.

5GX7



12FQ

DUAL TRIODE

5HA7

4HA7

Duodecar type used as a sync clipper and agc amplifier in television receivers. Outlines section, 8A; requires duodecar 12-contact socket. Type 4HA7 is identical with type 5HA7 except for the heater ratings.

Heater Voltage (ac/dc)	4HA7	5HA7	volts
Heater Current	4.2	5.6	ampere
	0.6	0.45	