

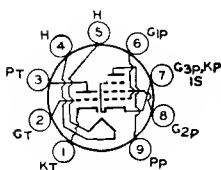
Refer to type 6AS8.

5AS8

Refer to type 6AT8A.

5AT8

Refer to chart at end of section.

5AU4**9DZ****MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE****5AV8**

Miniature type used in television receiver applications, Outlines section, 6B; requires miniature 9-contact socket. Heater: volts (ac/dc), 4.7; amperes, 0.6; warm-up time (average), 11 seconds; maximum heater-cathode volts, ± 200 peak, 100 average.

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

Plate Voltage	300
Grid-No.2 Supply Voltage	—
Grid-No.2 (Screen-Grid) Voltage	— See curve page 98
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0
Plate Dissipation	2.5
Grid-No.2 Input:	—

For grid-No.2 voltages up to 150 volts

For grid-No.2 voltages between 150 and 300 volts

Triode Unit	Pentode Unit	
300	300	volts
—	300	volts
—	See curve page 98	
0	0	volts
2.5	2	watts
—	0.5	watt
—	See curve page 98	

CHARACTERISTICS

Plate Supply Voltage	200
Grid-No.2 Supply Voltage	—
Grid-No.1 Voltage	—6
Cathode-Bias Resistor	—
Amplification Factor	19
Plate Resistance (Approx.)	5750
Transconductance	3300
Plate Current	13
Grid-No.2 Current	—
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—19

200	200	volts
—	150	volts
—6	—	volts
—	180	ohms
19	—	
5750	300000	ohms
3300	6200	μ mhos
13	9.5	mA
—	2.8	mA
—19	—8	volts

MAXIMUM CIRCUIT VALUES**Grid-No.1-Circuit Resistance:***

For fixed-bias operation

For cathode-bias operation

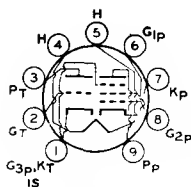
0.5	0.25	megohm
1	1	megohm

* If either unit is operating at maximum rated conditions, grid-No.1-circuit resistance for both units should not exceed the stated values.

Refer to chart at end of section.

5AW4

Refer to chart at end of section.

5AZ4**9EC****MEDIUM-MU TRIODE—
SHARP-CUTOFF PENTODE****5B8**

Miniature type used as combined vhf oscillator and mixer in television receivers. Outlines section, 6B; requires miniature 9-contact socket.

Heater Voltage (ac/dc)	4.7	volts
Heater Current	0.6	ampere
Heater Warm-up Time	11	seconds
Heater-Cathode Voltage:		

Peak value	± 200 max	volts
Average value	100 max	volts

Direct Interelectrode Capacitances:

Triode Unit:		
Grid to Plate	1.7	pF
Grid to Cathode, Heater, Pentode Grid No.3, and Internal Shield	1.9	pF
Plate to Cathode, Heater, Pentode Grid No.3, and Internal Shield	1.4	pF

Pentode Unit:

Grid No.1 to Plate	0.05 max	pF
Grid No.1 to Cathode, Heater, and Grid No.2	6	pF
Plate to Cathode, Heater, Grid No.2, and Internal Shield	2.6	pF
Plate to Cathode, Heater, and Grid No.2	0.15	pF
Triode Grid to Pentode Plate	0.0078	pF
Pentode Grid No.1 to Triode Plate	0.0033	pF
Pentode Plate to Triode Plate	0.06	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)

	Triode Unit	Pentode Unit	
Plate Voltage	300	300	volts
Grid No.2 (Screen-Grid) Supply Voltage	—	300	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	2	watts
Grid No.2 Input:			
For grid-No.2 voltages up to 150 volts	—	0.5	watt
For grid-No.2 voltages between 150 and 300 volts	—	See curve page 98	

CHARACTERISTICS

Plate Supply Voltage	200	200	volts
Grid-No.2 Supply Voltage	—	150	volts
Grid Voltage	—6	—	volts
Cathode-Bias Resistor	—	180	ohms
Amplification Factor	19	—	
Plate Resistance (Approx.)	5750	300000	ohms
Transconductance	3300	6200	μmhos
Plate Current	13	9.5	mA
Grid-No.2 Current	—	2.8	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μA	—19	—8	volts

MAXIMUM CIRCUIT VALUES

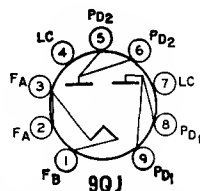
Grid-No.1-Circuit Resistance*:			
For fixed-bias operation	0.5	0.25	megohm
For cathode-bias operation	1	1	megohm

* If either unit is operated at maximum rated conditions, grid-No.1-circuit resistance for both units should not exceed the stated values.

5BC3

Refer to chart at end of section.

5BC3A

FULL-WAVE
VACUUM RECTIFIER

Novar types used in power supplies of radio equipment and television receivers having high dc requirements. Outlines section, 31C; requires novar 9-contact socket. Vertical operation is preferred, but tubes may be operated in horizontal position if pins 2 and 7 are in vertical plane. It is especially important that these tubes, like other power-handling tubes, be adequately ventilated. Filament: volts (ac), 5; amperes, 3.

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)	See Rating Chart	
Average Output Current (Per Plate)	See Rating Chart	

TYPICAL OPERATION WITH CAPACITOR INPUT TO FILTER

AC Plate-to-Plate Supply Voltage (rms)	600	900	1100	volts
Filter-Input Capacitor*	40	40	40	μF
Total Effective Plate-Supply Impedance per Plate				
DC Output Voltage at Input to Filter (Approx.):	21	67	97	ohms
At load current of: 300 mA	290	—	—	volts
275 mA	—	460	—	volts
162 mA	—	—	630	volts
150 mA	335	—	—	volts
137.5 mA	—	520	—	volts
81 mA	—	—	680	volts