

GLOW-DISCHARGE TRIODE

5823

INDUSTRIAL
TYPE

Miniature type, cold-cathode, glow discharge triode for use primarily as a relay control tube in "on-off" low current electrical circuits. Outlines section, 5C; requires miniature 7-contact socket.

MAXIMUM RATINGS^A (Absolute-Maximum Values)

For First-Quadrant Operation Only

Peak Anode and Starter-Electrode Voltage:		
Inverse	200	volts
Forward	200	volts
Cathode Current:		
Peak	100	mA
Average*	25	mA
Peak Starter-Electrode Current:		
With starter-electrode voltage positive	100	mA
Ambient Temperature	-60 to +75	°C

TYPICAL OPERATING CONDITIONS

For Relay Service with 60-Hz Supply

AC Anode Supply Voltage (RMS)	117	volts
AC Starter-Electrode Voltage:		
Max. Peak Positive Pre-Firing Voltage	70	volts
Min. Peak Positive Triggering Voltage	35	volts
Min. Firing Voltage (Sum of In-Phase Instantaneous Pre-Firing Voltage and Instantaneous Triggering Voltage)	105	volts

^A These ratings apply to the 5823 when it is operated from a power supply having a frequency of 60 Hz.

* Averaged over any interval of 15 seconds max.

Refer to chart at end of section.

5824

Refer to chart at end of section.

5840

Refer to chart at end of section.

5840W

Refer to chart at end of section.

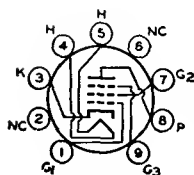
5842/417A

Refer to chart at end of section.

5844

Refer to chart at end of section.

5847/404A



9AD

SHARP-CUTOFF PENTODE

5879

Miniature type used as audio amplifier in the input stages of medium-gain public-address systems, home sound recorders, and audio systems. Outlines section, 6B; requires miniature 9-contact socket. For operation as resistance-coupled amplifier, refer to Resistance-Coupled Amplifier section.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.15	ampere
Peak Heater-Cathode Voltage	±100 max	volts
Direct Interelectrode Capacitances:		
Pentode Connection:		
Grid No.1 to Plate	0.11 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	2.7	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	2.4	pF
Triode Connection*:		
Grid No.1 to Plate	1.4	pF
Grid No.1 to Cathode and Heater	1.4	pF
Plate to Cathode and Heater	0.85	pF

* Grid No.2 and grid No.3 connected to plate.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Connection*	Pentode Connection	
Plate Voltage	275	330	volts
Grid-No.2 (Screen-Grid) Voltage	—	See curve page 300	
Grid-No.2 Supply Voltage	—	330	volts
Grid-No.1 (Control-Grid) Voltage:			
Negative-bias value	55	55	volts
Positive-bias value	0	0	volts
Plate Dissipation	1.7	1.25	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	0.25	watt
For grid-No.2 voltages between 165 and 300 volts	—	See curve page 300	

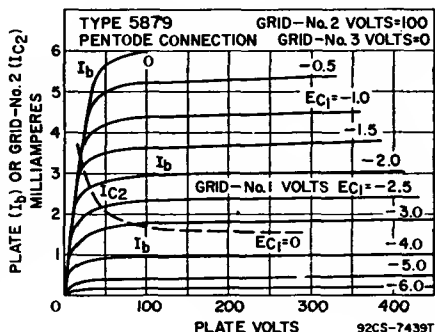
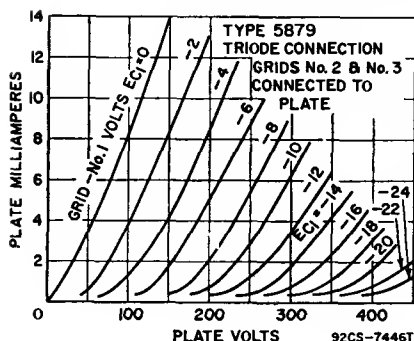
CHARACTERISTICS

Plate Voltage	100	250	250	volts
Grid No.3	—	—	Connected to cathode at socket	
Grid-No.2 Voltage	—	—	100	volts
Grid-No.1 Voltage	-3	-8	-3	volts
Amplification Factor	21	21	—	
Plate Resistance (Approx.)	0.017	0.0137	2	megohms
Transconductance	1240	1530	1000	μ mhos
Plate Current	2.2	5.5	1.8	mA
Grid-No.2 Current	—	—	0.4	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—	—	-8	volts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	2.2	megohms
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* Grid No.2 and grid No.3 connected to plate.



5881

Refer to chart at end of section.

5896

Refer to chart at end of section.

5899

Refer to chart at end of section.

5902

Refer to chart at end of section.

5915

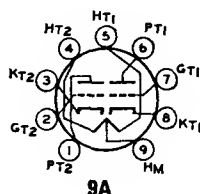
Refer to chart at end of section.

5963

INDUSTRIAL
TYPE

MEDIUM-MU TWIN TRIODE

Miniature type medium-mu twin triode used for "on-off" control applications involving long periods of operation under cutoff conditions. Outlines section, 6B; requires miniature 9-contact socket.



9A