TUNG-SOL

PRODUCT BULLETIN

INDUSTRIAL ELECTRON TUBE TYPE 8375

SEPTEMBER, 1963

CERAMIC HYDROGEN DIODE

DESCRIPTION — The 8375 is a ceramic, indirectly heated hydrogen-filled diode designed for use in high-voltage rectifier, clipper, backswing and hold-off diode applications. Incorporated with the tube is a reservoir that promotes stable operation and long life by maintaining a constant hydrogen density.

Contrasted with a solid-state rectifier, the tube can withstand high current and high inverse voltage surges. It also has the advantage of being free of the temperature and mounting restrictions of mercury vapor tubes. The 8375 has been designed into some equipment under the developmental designation CH1161.

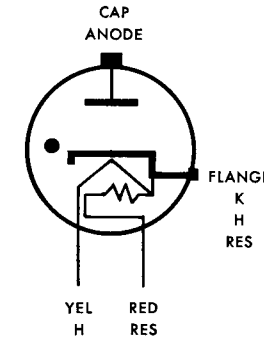
See Page 2 For Outline Drawing

ELECTRICAL DATA

	Min	Bogey	Max	
Heater and Reservoir Voltage (Note 1)	4.75	5.00	5.25	Volts
Heater Current (Note 2)	9	—	12	Amperes
Reservoir Current (Note 2)	2	—	3	Amperes
Cathode and Reservoir Heating Time	3	—	—	Minutes
Tube Voltage Drop	30	—	50	Volts
Initial Firing Voltage	—	—	100	Volts
Recurrent Firing Voltage	—	—	60	Volts
Ambient Temperature	−55	—	+150	Degrees Centigrade
Envelope Temperature	—	—	400	Degrees Centigrade

NOTES:

1. The bogey reservoir voltage for externally connected reservoir is 5 volts. This may be obtained by connecting the reservoir in parallel with the cathode heater. The reservoir voltage can be adjusted slightly lower or higher for optimum pressure when operating tube in certain types of clipper service.
2. Heater and reservoir currents at bogey heater and reservoir voltage.



MAKE CATHODE CONNECTION TO FLANGE

BASING DIAGRAM

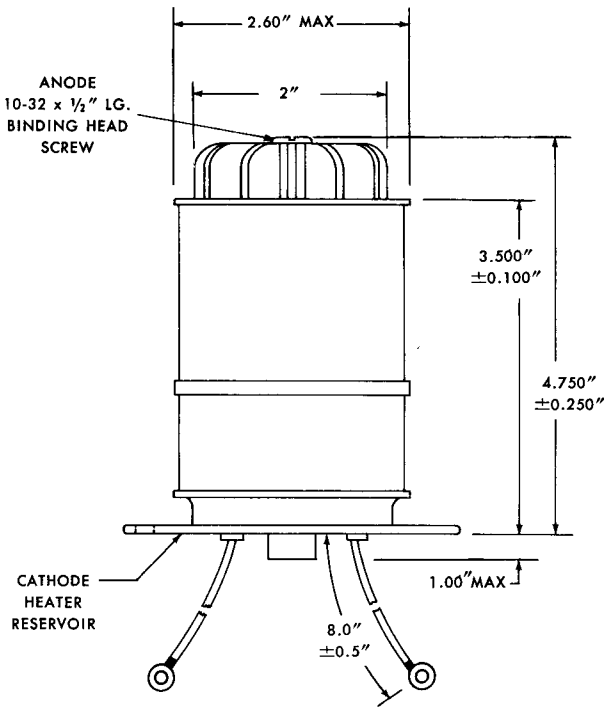
MECHANICAL DATA

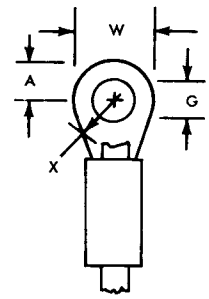
Type of Cooling	Convection
Mounting Position	Horizontal or vertical base down
Maximum Net Weight	1.3 Pounds
Dimensions, Mounting And Terminations	See Drawings

MAXIMUM RATINGS, ABSOLUTE VALUES
RECTIFIER SERVICE

Anode Voltage — Peak	
Inverse	20 Kilovolts
Anode Current	
Peak	4 Amperes
Average	1 Ampere
Fault-Maximum Duration 0.1 Second	30 Amperes

Rating Information for specific Clipper, Backswing Diode or Hold off Diode applications may be obtained by contacting Tung Sol's Commercial Engineering Dept.





DIMENSION	INCHES
A	0.160 MAX
G	0.193-0.203
W	0.310 MAX
X	0.275 MIN