

TECHNICAL DATA
DATA SHEET 830, REV. A

HERMETIC POWER SCHOTTKY RECTIFIER
200°C Maximum Operation Temperature
Very Low Forward Voltage Drop

Applications:

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

Features:

- Soft Reverse Recovery at Low and High Temperature
- Very Low Forward Voltage Drop
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability
- Guaranteed Reverse Avalanche Characteristics

MAXIMUM RATINGS

ALL RATINGS ARE @ $T_C = 25^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

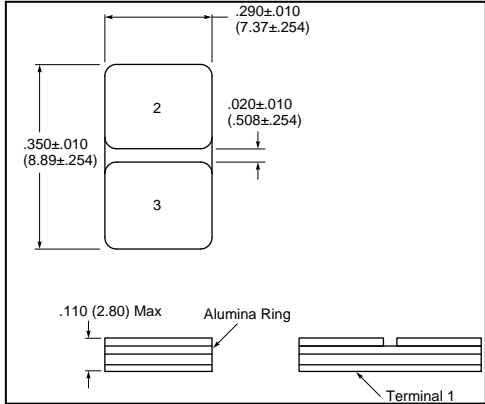
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	200	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$) (per leg)	I_O	15	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT (t=8.3ms, Sine)	I_{FSM}	280	Amps
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode) (per leg)	$R_{\theta JC}$	1.7	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	T_{op}/T_{stg}	-65 to +200	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	T_{op}/T_{stg}	-65 to +175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC			
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ($I_f = 15$ Amps) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	V_f	0.92 0.76	Volts
MAXIMUM REVERSE CURRENT (I_r @ 200V PIV) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	I_r	0.35 8.0	mA
MAXIMUM JUNCTION CAPACITANCE ($V_r=5V$)	C_T	300	pF

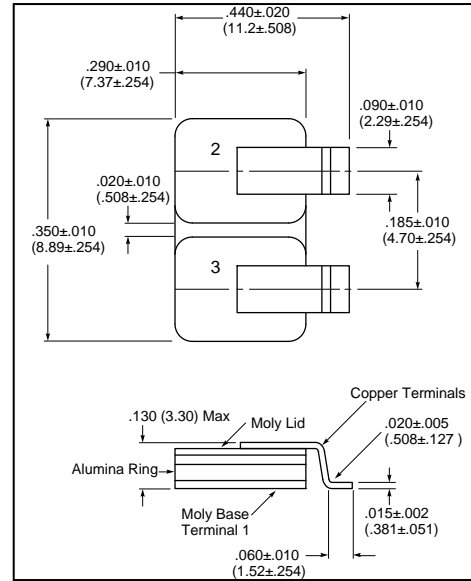
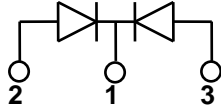
SENSITRON
DATA SHEET 830, REV. A

MECHANICAL DIMENSIONS: in inches / mm



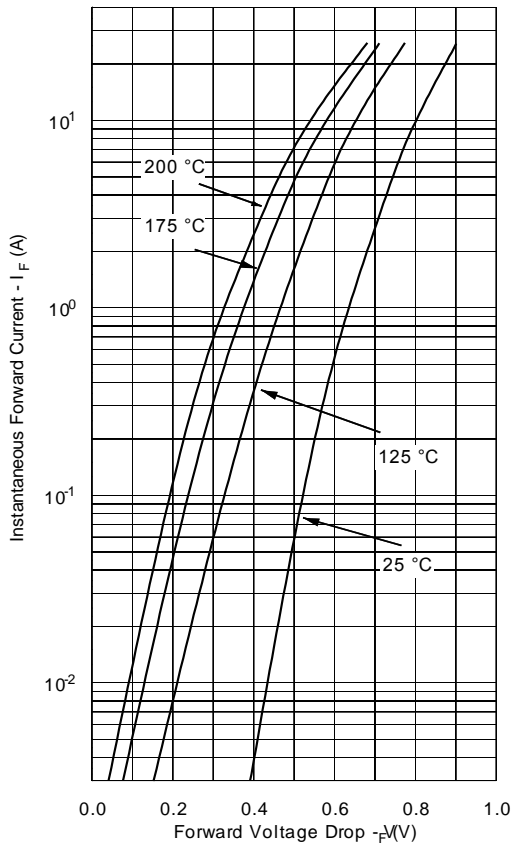
SHD-4

COMMON CATHODE

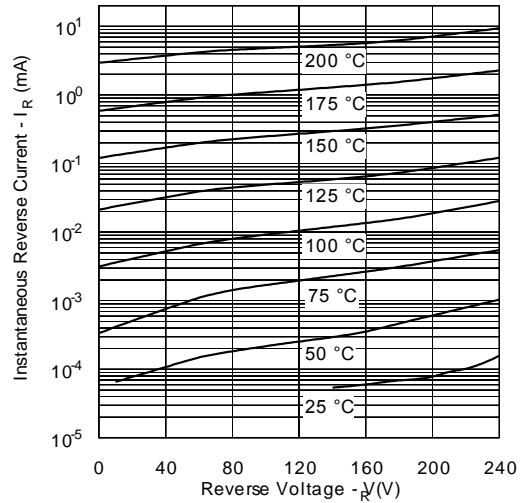


SHD-4B

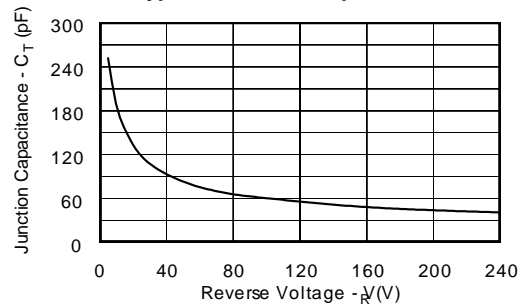
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



SENSITRON
DATA SHEET 830, REV. A

DISCLAIMER:

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.

3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.

4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.