

**HERMETIC POWER SCHOTTKY RECTIFIER**  
**150°C Maximum Operation Temperature**

**DESCRIPTION:** A 45V, 75A, POWER SCHOTTKY RECTIFIER IN HERMETIC PACKAGE

RATING	SYMBOL	TYP	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	48	45 min.	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ )	$I_O$	---	75	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t=8.3\text{ms}$ )	$I_{FSM}$	---	500	Amps
MAXIMUM JUNCTION CAPACITANCE  <b>I</b>	$C_T$	2500 1750	3000 2100	pF
		( $V_R=5V$ ) ( $V_R=10V$ )		
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	0.68	0.8	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	----	-65 to +150	$^\circ\text{C}$

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

CHARACTERISTIC	SYMBOL	TYP	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_J = 25^\circ\text{C}$ $I_F = 10A$ $I_F = 20A$ $I_F = 40A$ $I_F = 50A$ $I_F = 75A$	$V_{F1}$ $V_{F2}$ $V_{F3}$ $V_{F4}$ $V_{F5}$	0.385 0.425 0.480 0.505 0.575	0.410 0.470 0.550 0.580 0.650	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_J = 100^\circ\text{C}$ $I_F = 10A$ $I_F = 20A$ $I_F = 50A$ $I_F = 75A$	$V_{F6}$ $V_{F7}$ $V_{F8}$ $V_{F9}$	0.310 0.365 0.480 0.550	0.360 0.430 0.560 0.640	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_J = 125^\circ\text{C}$ $I_F = 10A$ $I_F = 20A$ $I_F = 50A$ $I_F = 75A$	$V_{F10}$ $V_{F11}$ $V_{F12}$ $V_{F13}$	0.295 0.350 0.470 0.540	0.350 0.420 0.550 0.630	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_J = 150^\circ\text{C}$ $I_F = 10A$ $I_F = 20A$ $I_F = 50A$ $I_F = 75A$	$V_{F14}$ $V_{F15}$ $V_{F16}$ $V_{F17}$	0.270 0.330 0.455 0.535	0.325 0.400 0.540 0.625	Volts

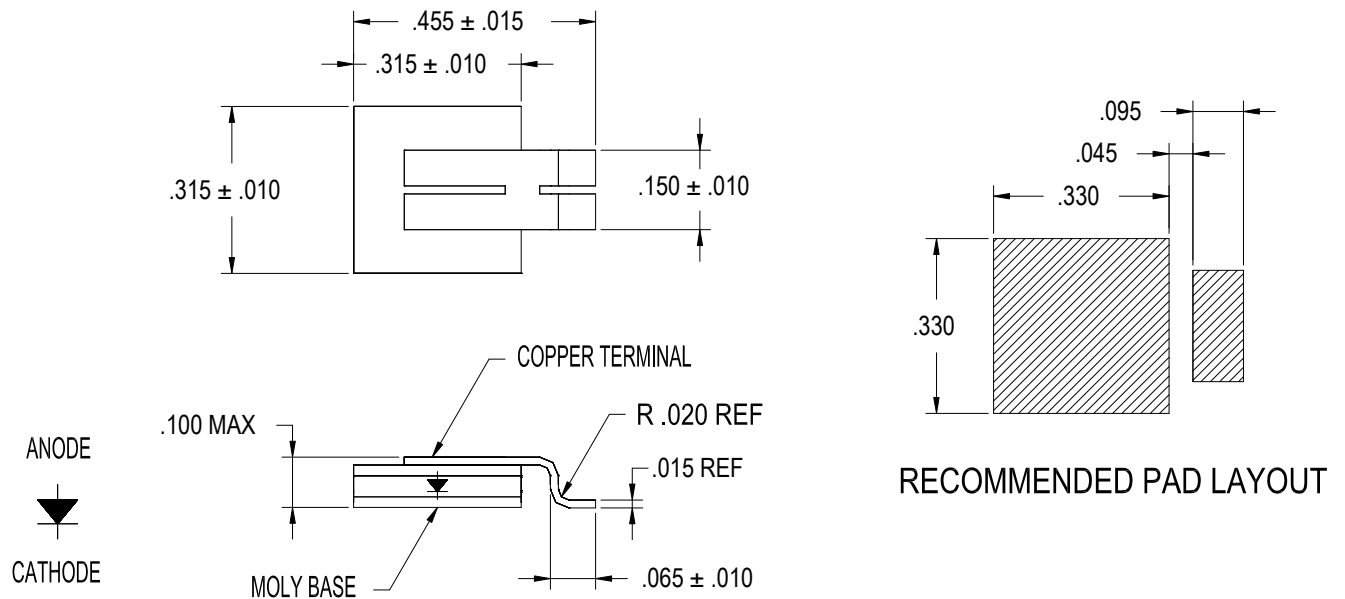
**SENSITRON**  
**SEMICONDUCTOR**

**SHD155572**  
**SHD155572B**

TECHNICAL DATA  
DATA SHEET 5559, REV. A

CHARACTERISTIC		SYMBOL	TYP	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed	$T_J = -55\text{ }^\circ\text{C}$ $I_F = 20\text{A}$	$V_{F18}$	0.505	0.550	Volts
MAXIMUM REVERSE CURRENT ( $I_R$ @ 45V PIV)	$T_J = 25\text{ }^\circ\text{C}$ $T_J = 100\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$ $T_J = 150\text{ }^\circ\text{C}$	$I_{R1}$ $I_{R2}$ $I_{R3}$ $I_{R4}$	0.3 40 150 450	5 100 300 900	mA
MINIMUM BREAKDOWN VOLTAGE ( $V_{BR}$ @ 5mA)	$T_J = 25\text{ }^\circ\text{C}$  $T_J = -55\text{ }^\circ\text{C}$	$V_{BR1}$  $V_{BR2}$	48  45	46 (min) ---	Volts

**MECHANICAL DIMENSIONS: In Inches / mm**

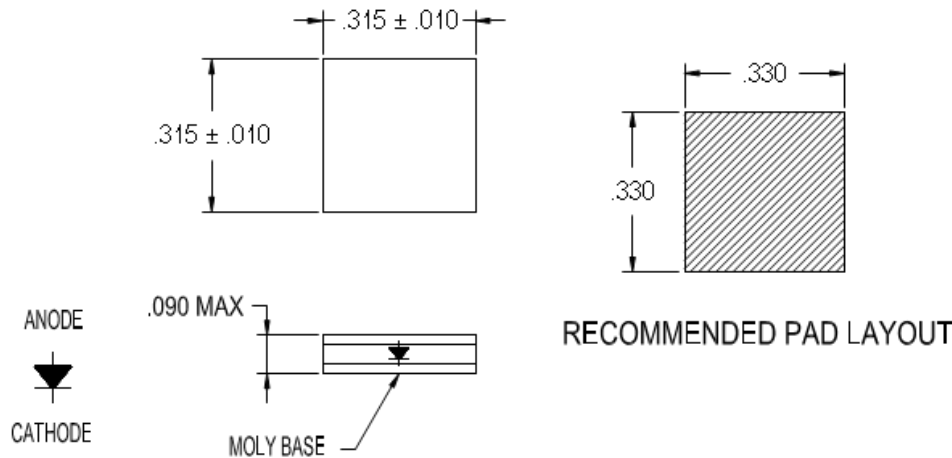


**SHD-2BHC**

**SENSITRON**  
**SEMICONDUCTOR**

SHD155572  
SHD155572B

TECHNICAL DATA  
DATA SHEET 5559, REV. A



**SHD-2HC**

**PART ORDERING INFORMATION:**

**SHD155572B XX**

**Screening Options\*:**

Suffix	Screened in Accordance with:
blank	No screening level
W	PIND testing
S	JANTXV equivalent Screening, per DS2044

\*Options can be combined, ordered in sequence listed (i.e., WS)

**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.