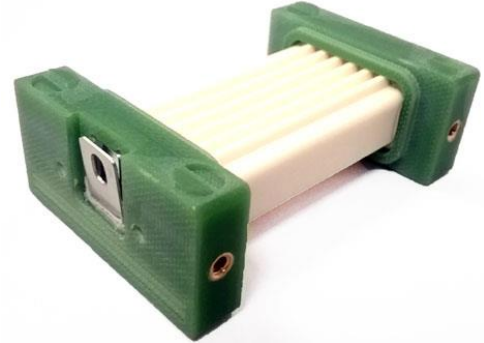


TECHNICAL DATA  
DATASHEET 5500, Rev. B

## 10KVOLT, 9 AMP DIODE MODULE

### Features

- 10 Sections of 1kV/3A/75ns Glass Hermetic Diodes
- Isolated Ceramic Case for Heat Transfer
- Interlocking Features for Stacking Modules
- Threaded Mounting Holes
- Threaded Terminals for Anode and Cathode
- Add suffix "HV" for screening per Sensitron HV Stack Screening Flow, HV-200 (SHVD0910BHV)



### ELECTRICAL CHARACTERISTICS

(T<sub>J</sub>=25°C UNLESS OTHERWISE SPECIFIED)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNIT
<b>DIODE MODULE SPECIFICATIONS</b>					
V <sub>f</sub>	Forward Voltage I <sub>f</sub> = 6A, T <sub>A</sub> =25°C I <sub>f</sub> = 6A, T <sub>A</sub> =100°C	-	-	16 14	V
I <sub>R</sub>	Reverse Current V <sub>R</sub> =10000V, T <sub>A</sub> =25°C V <sub>R</sub> =10000V, T <sub>A</sub> =100°C	-	-	20 300	µA
BV <sub>R</sub>	Breakdown Voltage I <sub>R</sub> =500µA, T <sub>A</sub> =25°C I <sub>R</sub> =500µA, T <sub>A</sub> =100°C	10 10	-	-	kV
t <sub>rr</sub>	Reverse Recovery Time I <sub>f</sub> = 0.5A, I <sub>R</sub> =1A, I <sub>rr</sub> =0.25A, T <sub>A</sub> =25°C I <sub>f</sub> = 0.5A, I <sub>R</sub> =1A, I <sub>rr</sub> =0.25A, T <sub>A</sub> =100°C	-	-	100 250	ns
C <sub>J</sub>	Junction Capacitance V <sub>R</sub> =10V, f = 1MHz, V <sub>AC</sub> = 50mV Each section has 47pF, 2KV ceramic capacitor across the three diodes in parallel (for AC balancing)	-	30	50	pF
I <sub>s</sub>	Surge Current t = 8.3mS, Half Sine, T <sub>A</sub> =25°C	240	-	-	A

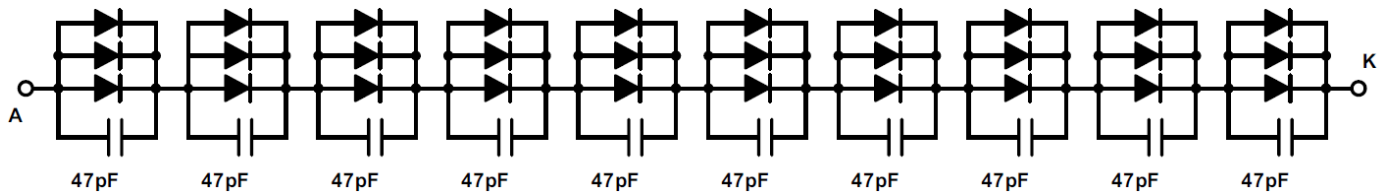
Note: Production units are tested at room temperature. Low/High temperature operation is guaranteed by design.

### THERMAL AND MECHANICAL CHARACTERISTICS

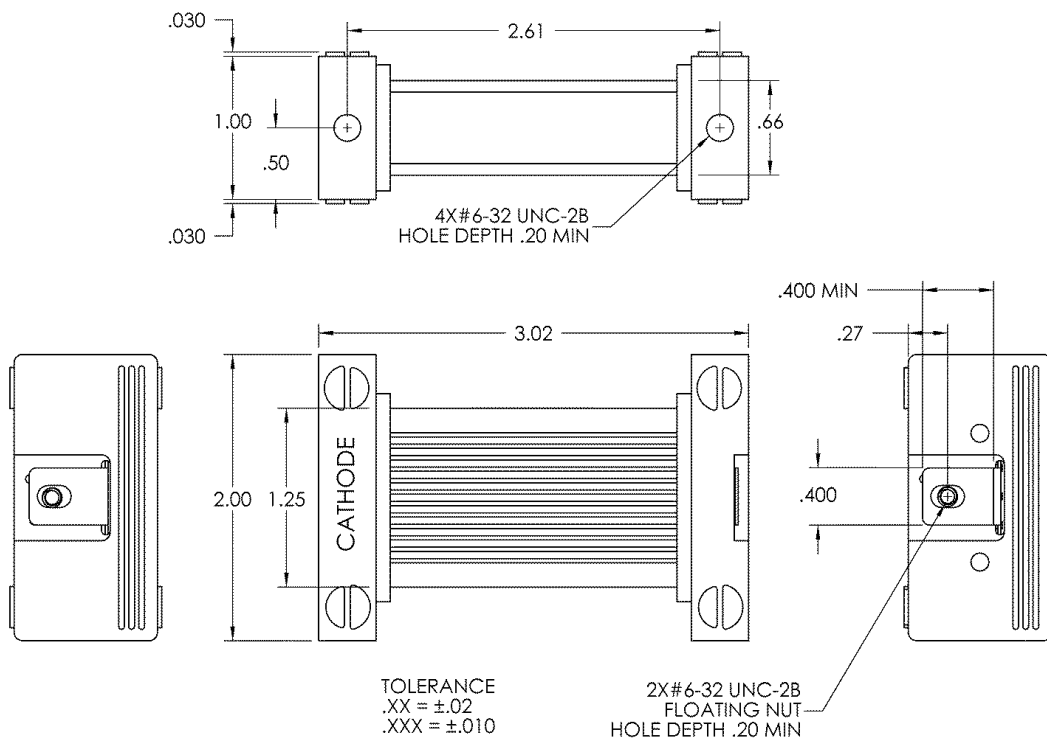
SYMBOL	PARAMETER	MIN	TYP	MAX	UNIT
R <sub>θJC</sub>	Diode Junction-to-Case Thermal Resistance (each section)	-	-	7	°C/W
V <sub>iso</sub>	Isolation to Case	-	-	15	kV DC
T <sub>J</sub>	Operating Junction Temperature	-55	-	150	°C
T <sub>STG</sub>	Storage Temperature	-55	-	150	°C
	Torque				
	Mounting Holes: #6-32 UNC-2B Brass Thread	-	6	8	in-lb
	Terminal Holes: #6-32 SS Nut	-	8	10	
	Weight				
	Module	-	125	200	g

**TECHNICAL DATA**  
**DATASHEET 5500, Rev. B**

**Schematic Diagram:**



**Mechanical Outline (inches):**



**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.