

TECHNICAL DATA  
PART NUMBER SCP-5282-3, REV C

**High Pulse Power Mil-STD-1275 Transorb**



**Application:**

- +28V DC systems
- Bi-Directional

**Protection Level:**

- MIL-STD-1275 Compliant; 100V Surge withstanding with 0.5-ohm source impedance
  - ✓ 100% tested
- Capable of handling 130-msec single pulse up to 135A
- 100% tested for 5 pulses of 110A, 50 msec within 1 sec
- Designed to meet: SAE J1113-11 under following conditions:
  - ✓ 174V, 2-ohm upto 150msec
  - ✓ 174V, 5-ohm upto 350msec
- Designed to meet: ISO16750-2 under following conditions:
  - ✓ 151V surge, 1 ohm upto 350msec
- Designed to meet ISO7637-2 under following conditions:
  - ✓ 200V test pulse 3B

**Key Features:**

- Allows the use of 55V high efficiency FET
- Increase system reliability through eliminating avalanche FET operation
- Clamping below 55V DC for both 100V and 250V pulse
- High Pulse Power Capability
- Non-Hermetic version

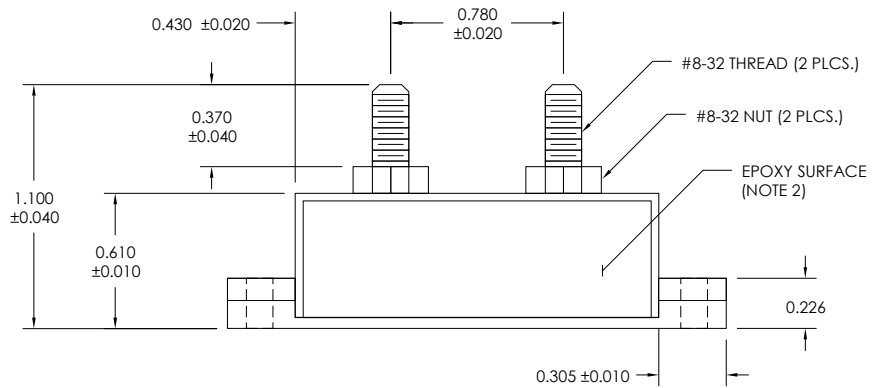
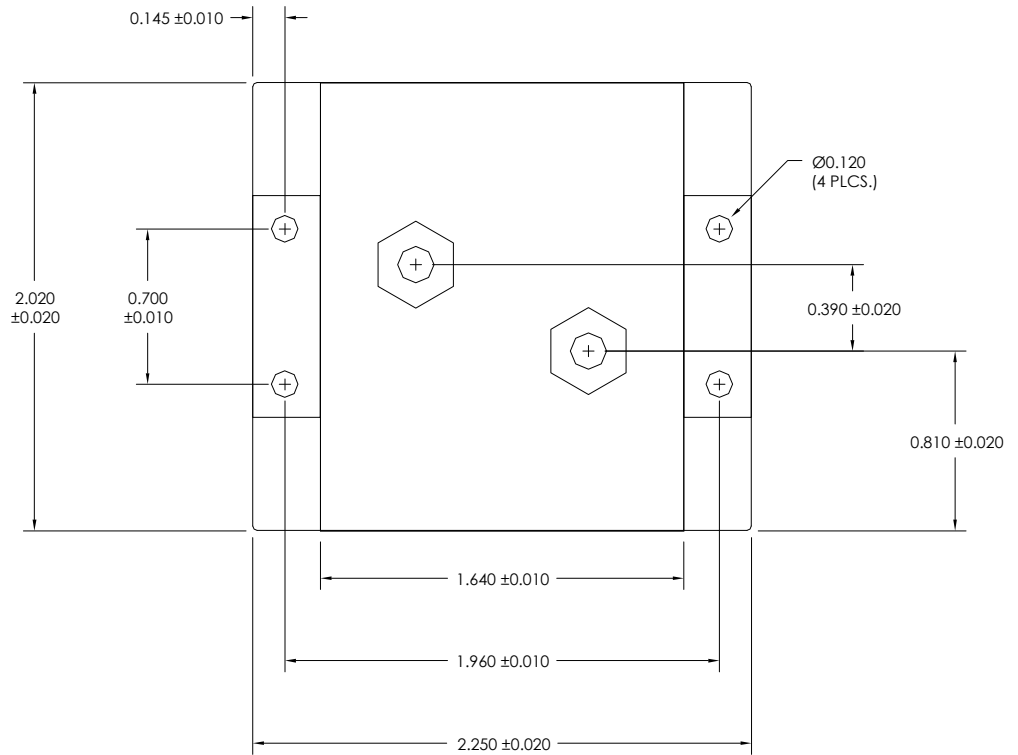
**Part Ordering Information:**

- SCP-5282-3: with threaded terminals

**TECHNICAL DATA**

Rating	Condition	Symbol	Min	Max	Units
Peak Pulse Power Dissipation	@ 25°C, 1ms	$P_{pk}$	-	100	KW
Steady State Power Dissipation	@ 25°C	$P$	-	60	Watts
Reverse Stand-Off Voltage	-	$V_{WM}$	-	33	Volts
Reverse Leakage	@ $V_{WM}$	$I_D$	-	40	$\mu A$
Breakdown Voltage	@ 10 mA	$V_{(BR)}$	36.7	-	Volts
Clamping Voltage	@ $I_{PP}$	$V_c$	-	49	Volts
Peak Pulse Current (single 130-msec square pulse)	-	$I_{PP1}$		135	Amps
Peak Pulse Current (5 pulses of 50-msec in 1 sec)	-	$I_{PP2}$		110	Amps
$T_{clamping}$	0 Volts to $V_{(BR)}$		-	$< 1 \times 10^{-8}$	Seconds
Operating & Storage Temp.	-	Top & Tstg	-55	+ 150	°C

**TOP VIEW**  
**MECHANICAL LAYOUT DRAWING**



**NOTES:**

- 1) DIMENSIONS UNLESS OTHERWISE NOTED ARE IN INCHES.
- 2) POTTING SURFACE UNCONTROLLED.

# **SENSITRON** **SEMICONDUCTOR**

SCP-5282-3

PART NUMBER:SCP-5282-3, REV C

**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.