

TECHNICAL DATA

PART NUMBER: SCP-5282-9, REV B

High Pulse Power Mil-STD-1275 SuperClamp, 34V at 120A

Key Features:

- Clamping below 34V DC for 40V, 100V, and 250V pulses
- High Pulse Power Capability
- Unidirectional
- Designed for safe paralleling
- Precision Clamping



Applications:

- +28V DC systems
- Enables compliance with MIL-STD-1275 requirements for Injected and Emitted Surges and Spikes

Protection Level:

- MIL-STD-1275 Compliant; 100V Surge withstanding for 100 msec with 0.5-ohm source impedance, clamping at 34V.
- MIL-STD-1275 Compliant; 40V Surge withstanding for 50 msec with 0.02-ohm source impedance. Two devices should be connected in parallel, clamping at 34V
- 100% tested for 100-msec single pulse up to 100A
- 100% tested for 50-msec, 5 pulses, at 10 sec intervals at 120A
- Capable of Clamping 30A for 500 msec square and decay to zero at 550msec at 2 second intervals when attached to a heat sink
- Designed to meet: SAE J1113-11 under following conditions:
 - ✓ 174V, 2-ohm upto 150msec
 - ✓ 174V, 5-ohm upto 350msec

Part Ordering Information:

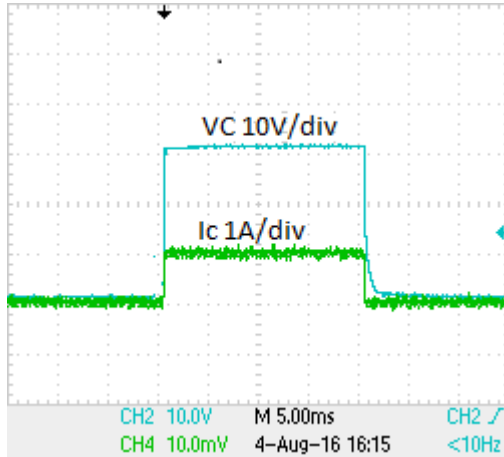
- SCP-5282-9

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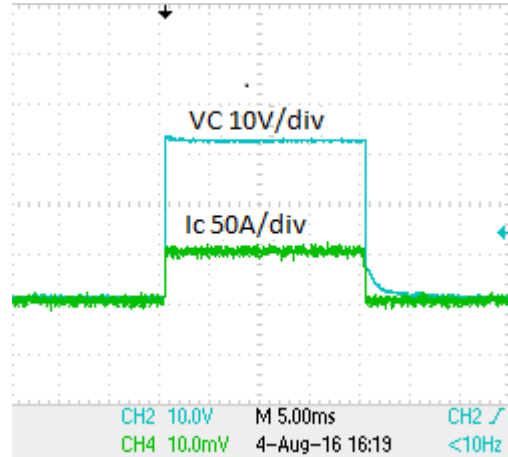
(All parameters are at Tc = 25°C unless otherwise specified)

Rating	Condition	Symbol	Min	Typ	Max	Units
Peak Pulse Power Dissipation	1ms	P_{pk}	-		10	KW
Steady State Power Dissipation	-	P	-		150	Watts
Reverse Stand-Off Voltage	-	V_{WM}	-	28	30	Volts
Reverse Leakage	@ V_{WM}	I_D	-	11	20	mA
Clamping Voltage,	@ 1A	V_c	30.25	30.38	30.50	Volts
	@ 10A		30.3	30.58	31.17	
	@ 50A		31.10	31.46	32.08	
	@ 100A		32.10	32.57	33.20	
	@ 120A		32.40	33.00	33.50	
Peak Pulse Current (single 100-msec square pulse)	-	I_{PP}			120	Amps
Typical Vclamp vs. Current	@ 0 to 150A		30.35 + 0.0221 * I_{clamp}			V
Operating & Storage Temp.	-	Top & Tstg	-55		+ 150	°C

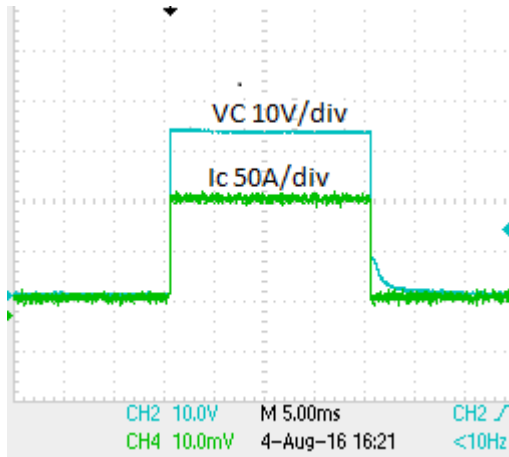
Clamping Performance, Typical



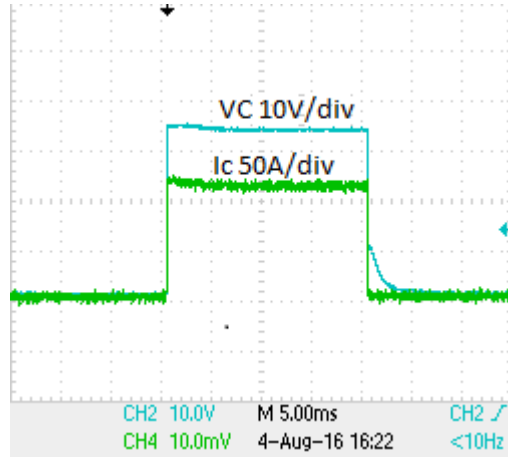
Clamping Current and Voltage Waveforms, at $I_c=1A$



Clamping Current and Voltage Waveforms, at $I_c=50A$



Clamping Current and Voltage Waveforms, at $I_c=100A$



Clamping Current and Voltage Waveforms, at $I_c=120A$

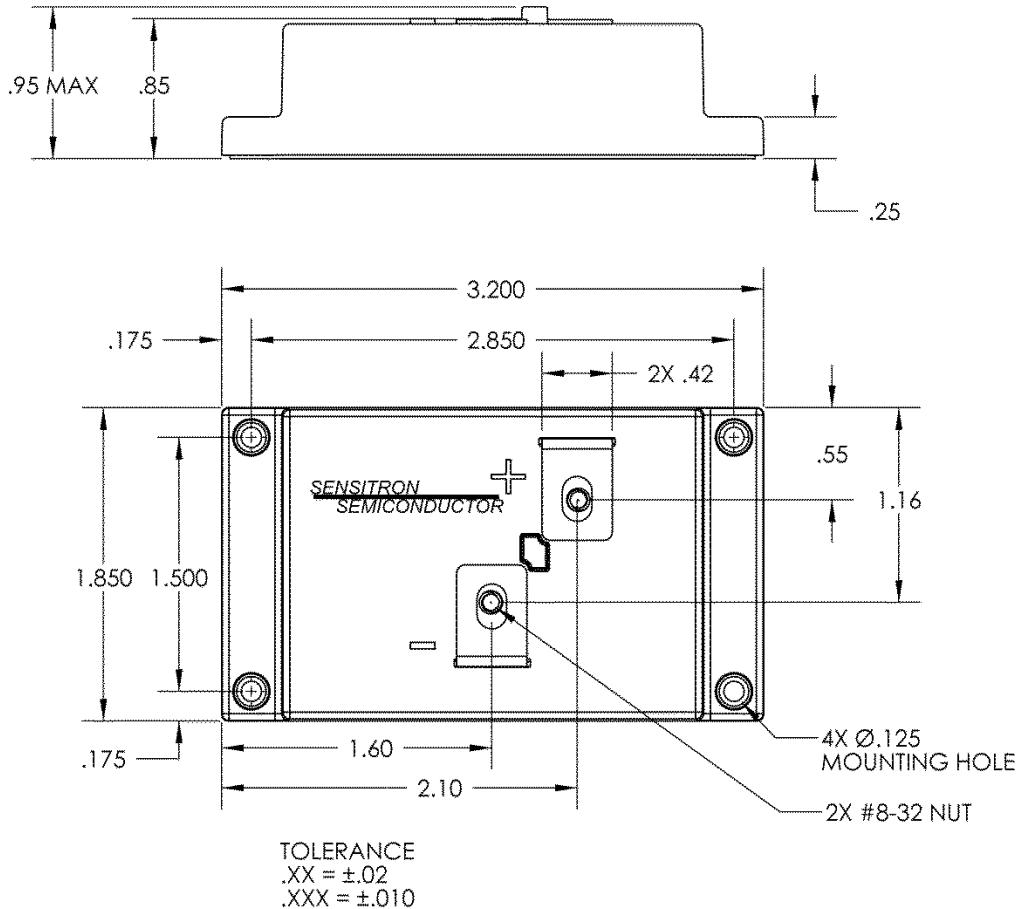
SENSITRON SEMICONDUCTOR

SCP-5282-9

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MECHANICAL OUTLINE



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