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:

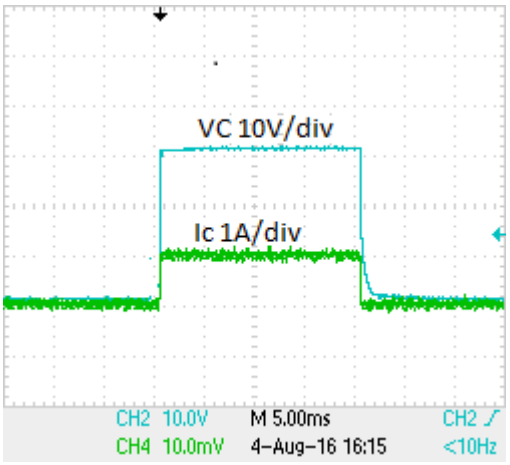
- **SCP-5282-9**

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

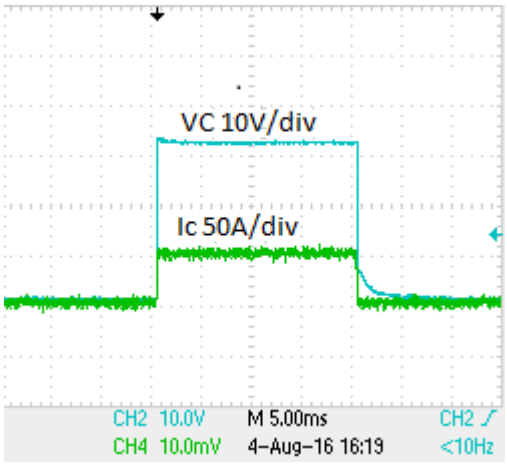
Rating	Condition	Symbol	Min	Typ	Max	Units
Peak Pulse Power Dissipation	1ms	P_{pk}	-		10	KW
Steady State Power Dissipation	-	P	-		150	Watts
Reverse Stand-Off Voltage	-	V_{WM}	-	28	30	Volts
Reverse Leakage	@ V_{WM}	I_D	-	11	20	mA
Clamping Voltage,	@ 1A	V_c	30.25	30.38	30.50	Volts
	@ 10A		30.3	30.58	31.17	
	@ 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 to150A		30.35 +0.0221*I_{clamp}			V
Operating & Storage Temp.	-	Top& Tstg	-55		+ 150	°C

TECHNICAL DATA
PART NUMBER: SCP-5282-9, REV B

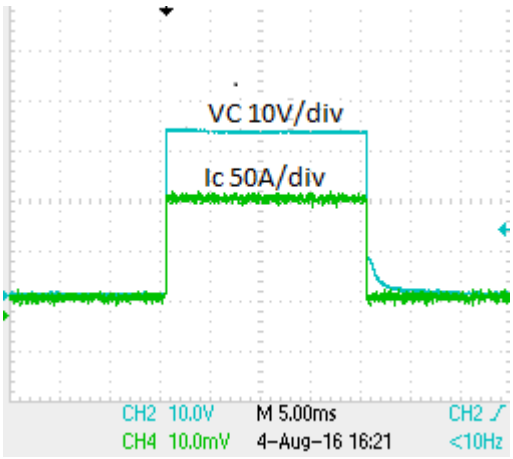
Clamping Performance, Typical



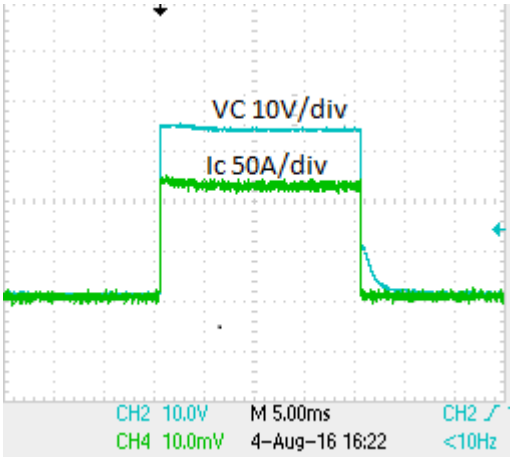
Clamping Current and Voltage Waveforms, at Ic=1A



Clamping Current and Voltage Waveforms, at Ic=50A



Clamping Current and Voltage Waveforms, at Ic=100A



Clamping Current and Voltage Waveforms, at Ic=120A

TECHNICAL DATA
PART NUMBER: SCP-5282-9, REV B

MECHANICAL OUTLINE