

Voltage Transient Clamp

FEATURES:

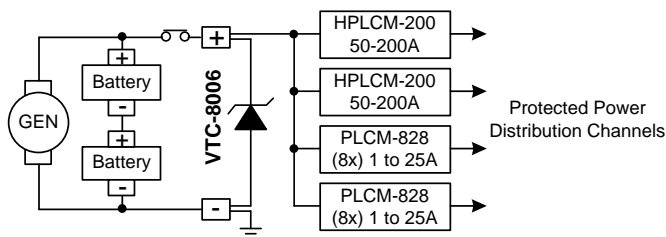
- MIL-STD-1275 and MIL-STD-704 compliant
- High surge capability
- High energy capacity
- Clamps MIL-STD-1275 specified 100V and 250V surges and transients below 50VDC
- Protects 24VDC/28VDC power distribution systems from voltage surges and transients
- Efficient package can be directly mounted to positive or return bus bars
- Case operating temperature -55°C to +125°C



TYPICAL APPLICATIONS:

The VTC-8006 and VTC-8006-RTN are used in +28VDC power distribution systems to protect sensitive electronics against voltage surges and transients induced by load switching and automotive load dump.

- Military and Commercial Vehicles
- Military and Commercial Ships
- Unmanned Aerial and Ground Vehicles
- Industrial Controls and Automation
- 24VDC/28VDC Power Distribution Systems
- High Energy Surge Protection



TECHNICAL DATA:

CHARACTERISTICS (T _C = -55°C to +125°C unless otherwise noted)	Symbol	Min	Max	Unit
Peak Pulse Power Dissipation with 10/1000μs waveform	P _{PPM}	-	85	KW
Peak Pulse Current with 10/1000μs waveform	I _{PPM}	-	1440	A
Maximum Clamping Voltage at I _{PPM}	V _{CM}	-	59	V
Steady State Power Dissipation	P _D	-	30	W
Breakdown Voltage with I _D = 10mA at T _C = +25°C	V _{BR}	40	45	V
Stand-Off Voltage with I _D ≤ 300μA	V _{WM}	-	36	V
Reverse Leakage Current at V _{WM}	I _D	-	300	μA
Clamping Voltage with 100V and 250V surges and transients as defined in MIL-STD-1275 at starting T _C = +85°C (See Figure 1)	V _C	-	50	V
Clamping Response Time	t _{clamp}	-	1	ns
Peak Forward Surge Current with 8.3ms single half sine wave	I _{FSM}	-	1500	A
Instantaneous Forward Voltage at I _{FSM}	V _F	-	2	V
Case Operating Temperature	T _C	-55	+125	°C

For technical support or VTC devices with different package options or V_{WM} and V_C characteristics, please contact Vetronix.

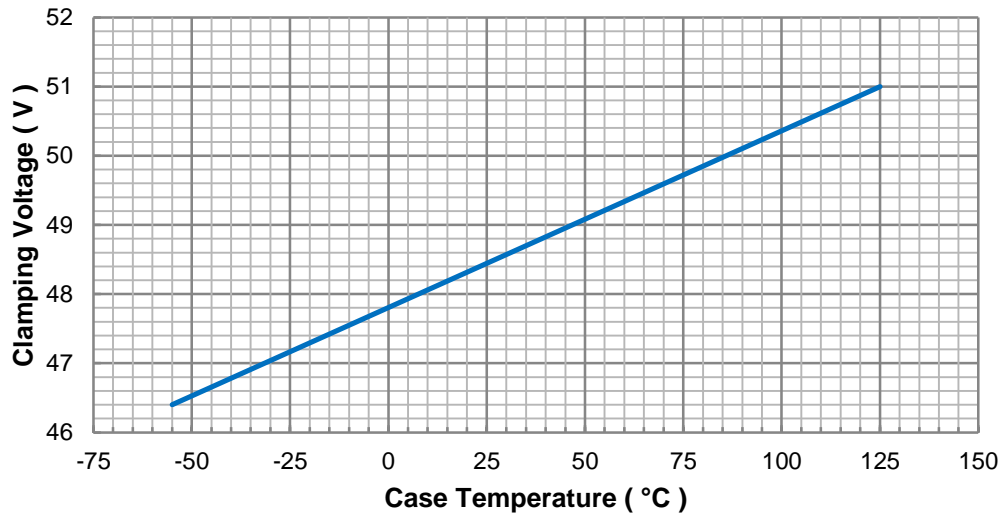
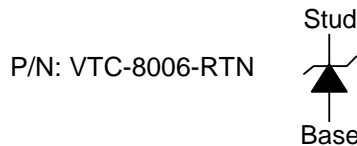
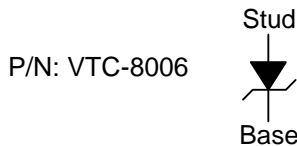
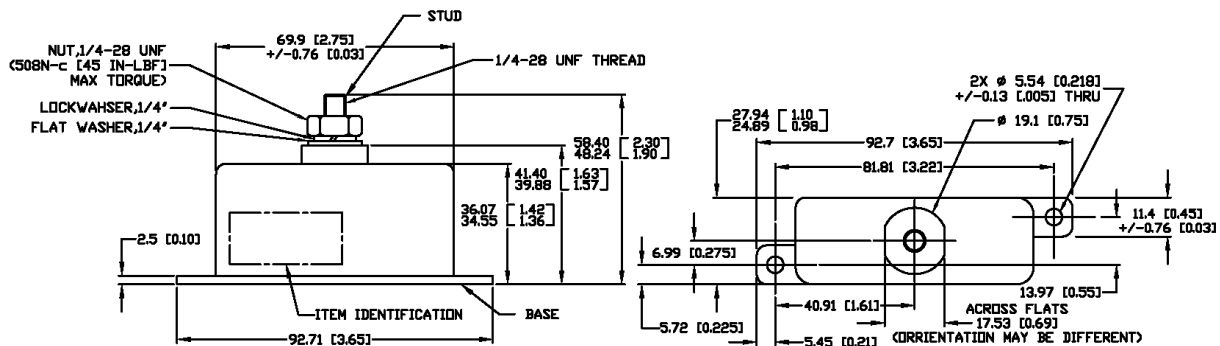


Figure 1. Maximum Clamping Voltage when subjected to MIL-STD-1275 specified 100V and 250V surges and transients with case starting temperatures of -55°C to +125°C.

ORDERING INFORMATION:



PACKAGE DIMENSIONS:



- Note: 1) Dimensions in millimeter [inches] and have tolerances of +/- 0.25mm[0.10'] unless otherwise specified
 2) Base and Stud terminals are matte tin plated
 3) Maximum Weight is less than 310 grams