SOLID STATE DEVICES, INC.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

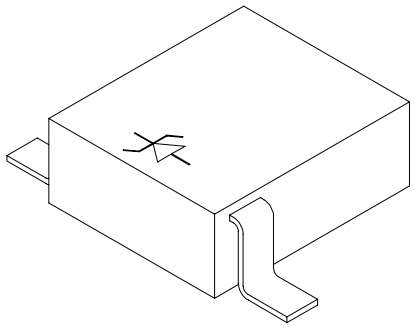
STM8057

Designer's Data Sheet

120 kWATTS 840 VOLTS UNIDIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR

FEATURES:
- **Available Voltages from 96V to 1600V. Consult Factory.**
- **Meets all Environmental Requirements of Mil-PRF-19500**
- **Custom Configurations Available**
- **Reverse Polarity Available (Add Suffix "R")**
- **150°C Maximum Operating and Storage Temperature**
- **TX and TXV Level Screening Available**

APPLICATIONS:
- **Voltage Sensitive Components Protection**
- **Protection Against High Power Surges**
- **Lightning Protection**



Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation 2/	P_D	120	kW
Stand off Voltage	V_{RWM}	800	V
Breakdown Voltage (Minimum)	V_{BR}	840	W
Clamping Voltage at I_{PP} 2/	V_{CC}	1,000	V
Peak Current	I_{PP}	120	A
Operating and Storage Temperature	Top, Tstg	-65 to +150	°C

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

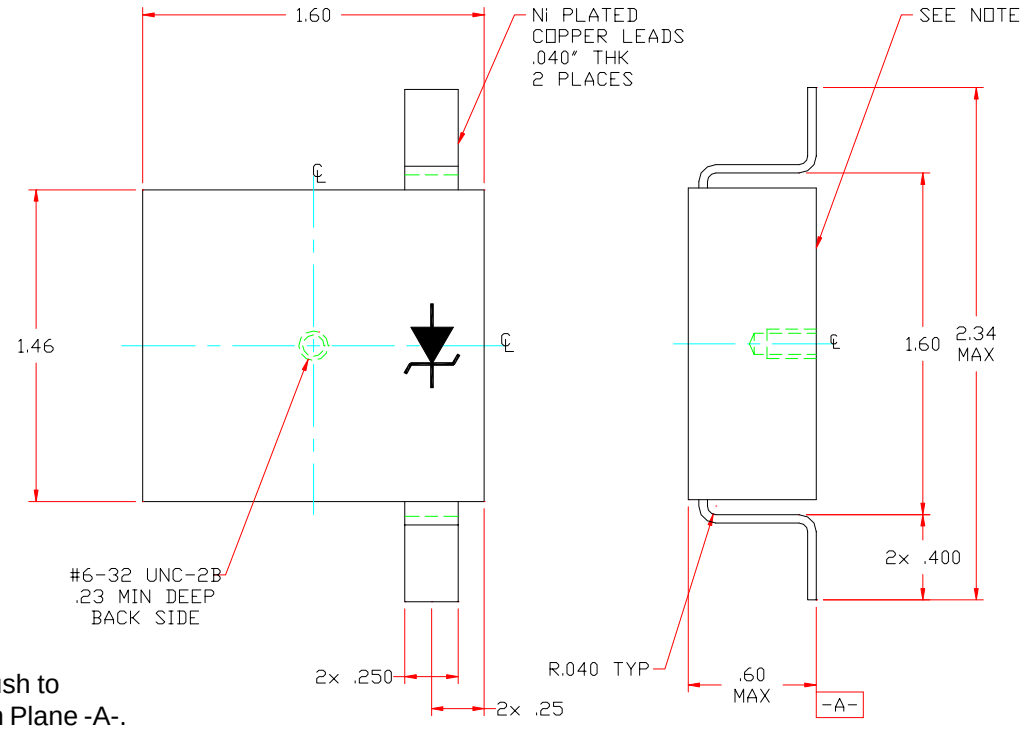
DATA SHEET #: TVS002A

STM8057

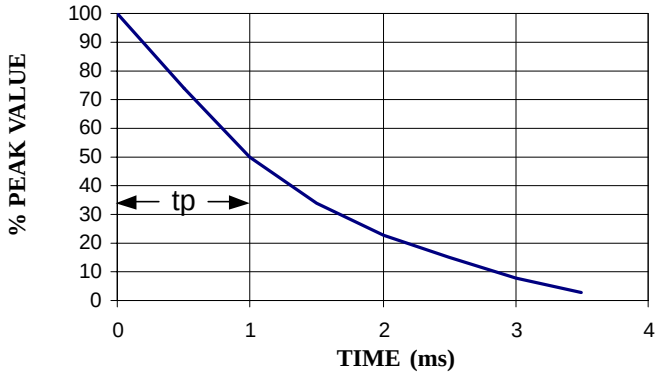
SOLID STATE DEVICES, INC.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

Electrical Characteristics	SYMBOL	MIN	MAX	UNITS
Reverse Leakage Current (V_{WM} = 800V, T_A = 25°C, 300 µsec pulse minimum)	I_{R1}	-	100	µA
Reverse Leakage Current (V_{WM} = 800V, T_A = 0°C, 300 µsec pulse minimum)	I_{R2}	-	200	µA
Breakdown Voltage (I_{BR} = 15mA, T_A = 25°C, 300 µsec pulse minimum)	V_{BR1}	840	-	V_{DC}
Breakdown Voltage (I_{BR} = 15mA, T_A = 0°C, 300 µsec pulse minimum)	V_{BR2}	810	-	V_{DC}
Clamping Voltage (I_{PP} = 120$A_{(pk)}$, t_R = 10µsec, t_P = 1000µsec)	V_C	-	1000	$V_{(pk)}$

Package Outline:



Note:
This Surface to be Flush to
+.005" underflush with Plane -A-.



Notes:

1. All voltages are measured with automated test set using 35 msec test time. Longer or shorter test times will have a corresponding effect on the measured value due to the heating effects.
2. Current Pulse rises to peak value of I_{PP} in 10µsec and decay to half value, $I_{PP}/2$, in 1msec.
3. Pulse width (t_P) is defined as the time from peak pulse current I_{PP} to the point where peak pulse current decayed to 50% of rated I_{PP}. (10µsec x 100µsec wave form as defined by R.E.A.)