

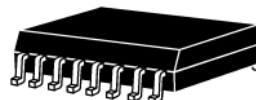
RoHS Compliant Product

**Description**

The SCT316LD series of monolithic Transient Voltage suppressors are designed for application where voltage transients, caused by electrostatic discharge (ESD) and other induced voltage surges, can permanently damage sensitive components.

These TVS diodes are characterized by low capacitance while at the same time retaining their high surge capability, extremely fast response time and low dynamic resistance. The SCT324LD series consists of 8 monolithic bi-directional TVS diode arrays and is specifically designed to protect multiple or single data line with each channel being electrically independent for multiple I/O port protection.

**16LD Package**



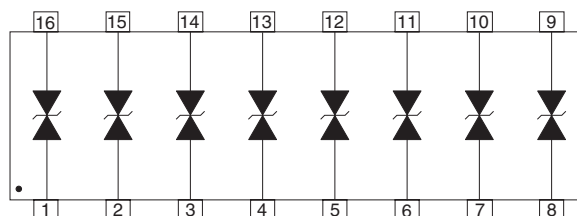
**Application**

- \* ESD & surge protection for power lines & I/O ports
- \* TTL and MOS Bus Lines
- \* RS-422, RS-432 and RS485 data lines
- \* High speed logic
- \* High speed data & video transmission
- \* Rosh compliant in Lead-Free Versions

**Features**

- \* 300 watts Peak pulse power (tp=8 x 20us).
- \* Protects up to 8 bi-directional line.
- \* Standoff voltages from 3.3 to 36 volts.
- \* ESD protection >30KV

**CONFIGURATION**



**Maximum rating and electrical characteristics**

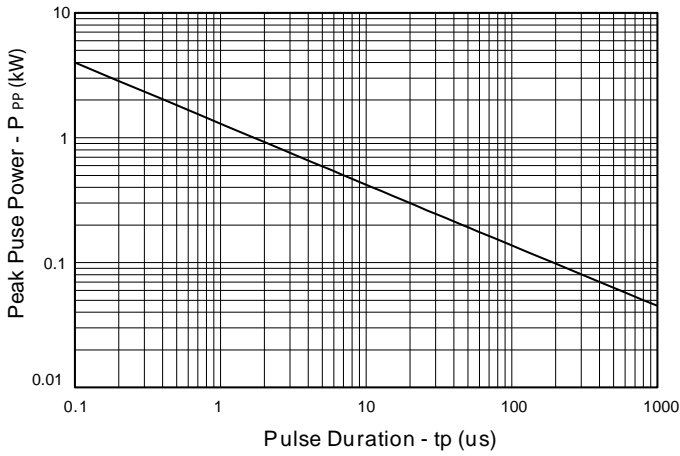
Rating	Symbol	Value	Units
Peak pulse Power (tp=8/20us)	P <sub>pk</sub>	300	Watts
Lead Soldering Temperature	T <sub>L</sub>	260 (10 sec.)	
Operating Temperature	T <sub>J</sub>	-55 to +125	
Storage Temperature	T <sub>STG</sub>	-55 to +150	

**Electrical Characteristics Per Line @ 25°C Unless otherwise specified**

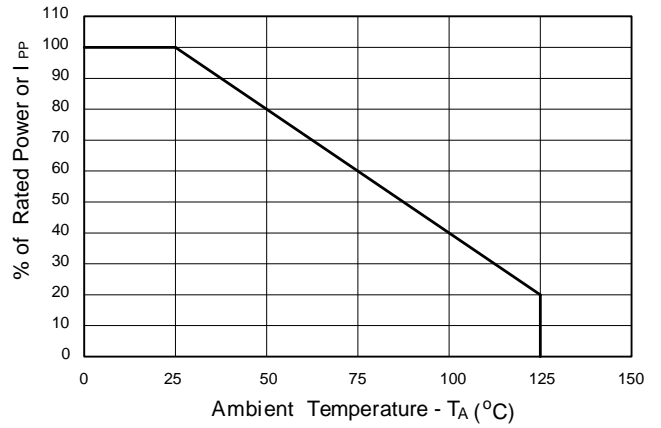
PART NUMBER	STAND OFF VOLTAGE V <sub>WM</sub> VOLTS	BREAKDOWN VOLTAGE V <sub>BR</sub> @1 mA VOLTS MIN	CLAMPING VOLTAGE V <sub>c</sub> , @ 1 Amp VOLTS MAX	CLAMPING VOLTAGE V <sub>c</sub> , @ 5 Amp VOLTS MAX	LEAKAGE CURRENT I <sub>b</sub> , @ V <sub>WM</sub> µA MAX	CAPACITANCE @0V, 1 MHz pF MAX
SCT316LD03C	3.3	4-5	7	8.5	100	700
SCT316LD05C	5.0	6.1-7.4	9.8	11	12	420
SCT316LD12C	12.0	13.3-16.9	19	24	0.5	150
SCT316LD16C	15.0	16.7-20.4	24	30	0.5	130
SCT316LD24C	24.0	26.7-32.6	43	55	0.5	60
SCT316LD36C	36.0	40.0-47.0	60	75	0.5	60

NOTE: Transient Voltage Suppression (TVS) product is normally selected based on its stand off Voltage V<sub>WM</sub>. Product selected voltage should be equal to or greater than the continuous peak operating voltage of the circuit to be protected.

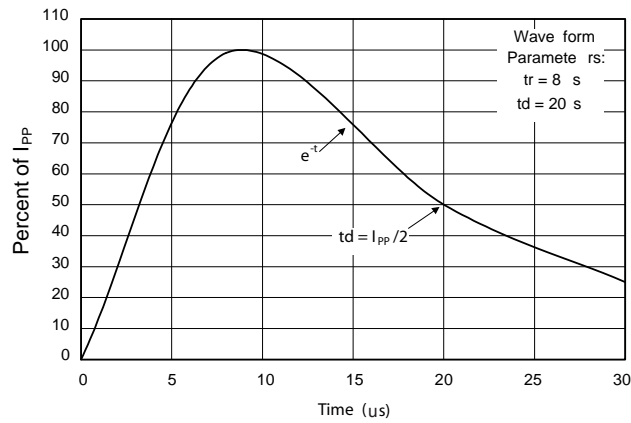
**Non-Repetitive Peak Pulse Power vs. Pulse Time**



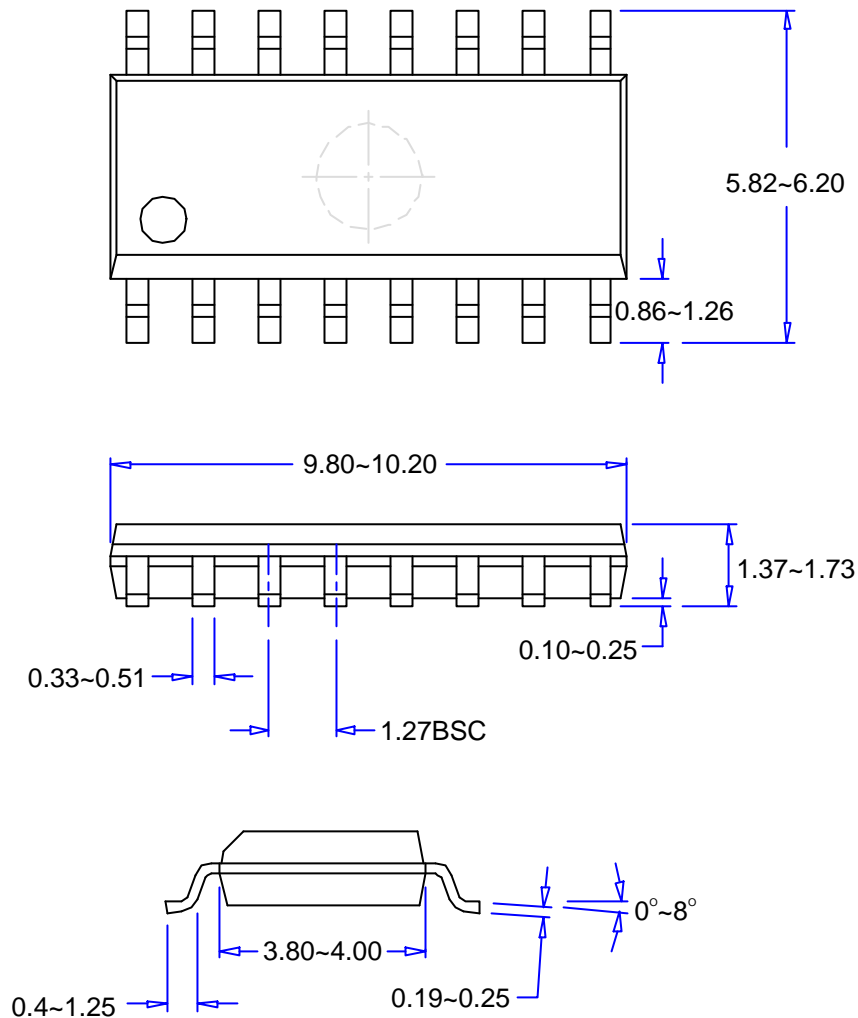
**Power Derating Curve**



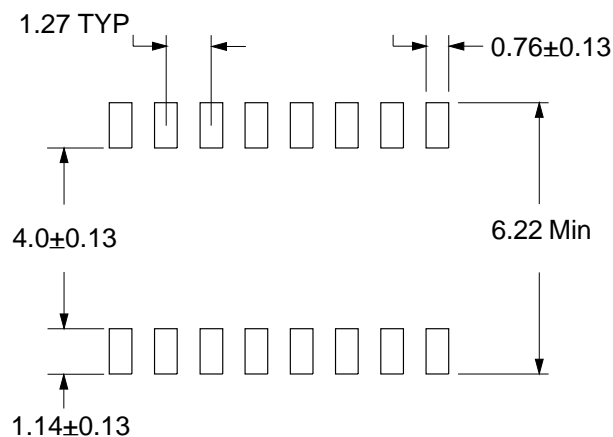
**Pulse Waveform**



**Out Drawing**



**Suggested Pad Layout**



**All dimensions in Millimeters**