

## Low Capacitance TVS Diode Array

### APPLICATIONS

- ◆ USB Power & Data Line Protection
- ◆ Ethernet 10BaseT
- ◆ I<sup>2</sup>C Bus Protection
- ◆ Video Line Protection
- ◆ T1/E1 secondary IC Side Protection
- ◆ Microcontroller Input Protection
- ◆ ISDN S/T Interface
- ◆ WAN/LAN Equipment

### IEC COMPATIBILITY

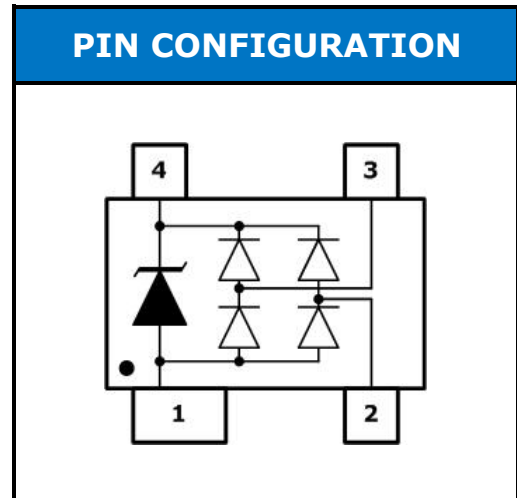
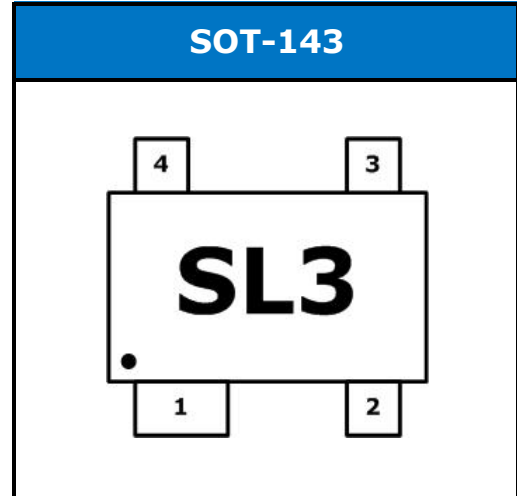
- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50 ns)
- ◆ IEC61000-4-5 (Lightning) 12A (8/20μs)

### FEATURES

- ◆ 500 Watts Peak Pulse Power per Line (tp=8/20μs)
- ◆ Protects two I/O lines
- ◆ Low clamping voltage
- ◆ Working voltages : 5V
- ◆ Low leakage current

### MECHANICAL CHARACTERISTICS

- ◆ JEDEC SOT-143 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 10 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free



## DEVICE CHARACTERISTICS

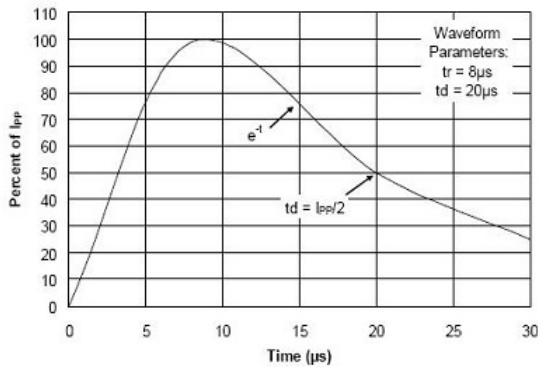
### MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp=8/20µs waveform)	P <sub>PP</sub>	500	Watts
Lead Soldering Temperature	T <sub>L</sub>	260 (10 sec.)	°C
Operating Temperature Range	T <sub>J</sub>	-55 ~ 150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ 150	°C

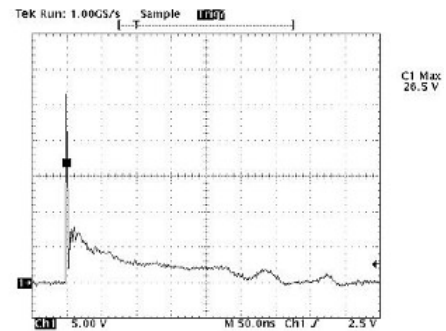
### ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)

PART NUMBER	DEVICE MARKING	V <sub>RWM</sub> (V) (max.)	V <sub>B</sub> (V) (min.)	I <sub>T</sub> (mA)	V <sub>C</sub> @1A (max.)	V <sub>C</sub> (max.) (@A)	I <sub>R</sub> (µA) (max.)	C <sub>T</sub> (pF) (max.)
TLSD05J2U	SL3	5	6	1	9.8	12	10	5

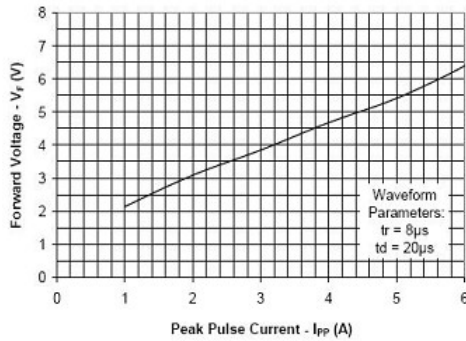
Pulse Waveform



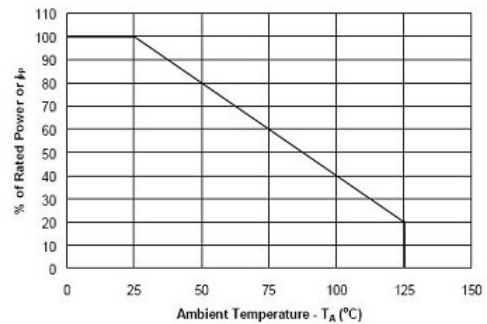
ESD Response (8kV Contact per IEC 61000-4-2)



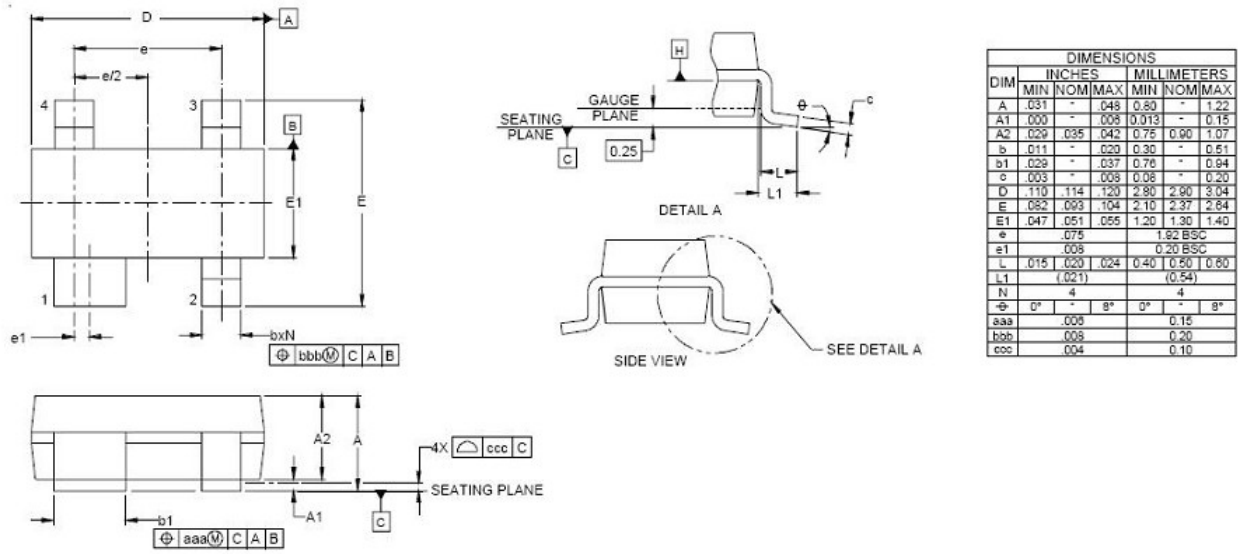
Note: Data is taken with a 10x attenuator



Power Derating Curve



**SOT-143 PACKAGE OUTLINE & DIMENSIONS**



**\* SOLDERING FOOTPRINT**

