

### APPLICATIONS

- ◆ High-Speed data lines
- ◆ Cellular handsets AND accessories
- ◆ Universal Serial Bus (USB) port protection
- ◆ Portable instrumentation
- ◆ LAN / WAN equipment
- ◆ Peripherals

### IEC COMPATIBILITY

- ◆ IEC61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50  $\eta$  s)
- ◆ IEC61000-4-5 (Lightning) 12A (8/20 $\mu$ s)

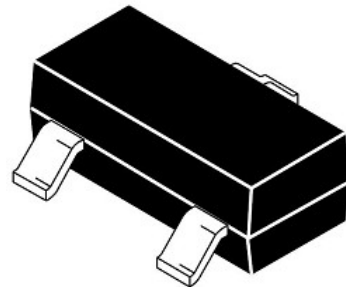
### FEATURES

- ◆ 500 Watts Peak Pulse Power per Line ( $t_p=8/20\mu$ s)
- ◆ Protects one I/O line
- ◆ Low clamping voltage
- ◆ Working voltages: 3.3, 5, 8, 12, 15, 24, 36V
- ◆ Low leakage current

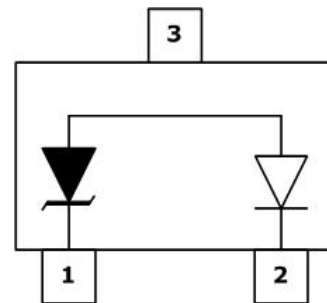
### MECHANICAL CHARACTERISTICS

- ◆ JEDEC SOT-23 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Weight 8 Milligrams (Approximate)
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free

### SOT-23



### PIN CONFIGURATION



## DEVICE CHARACTERISTICS

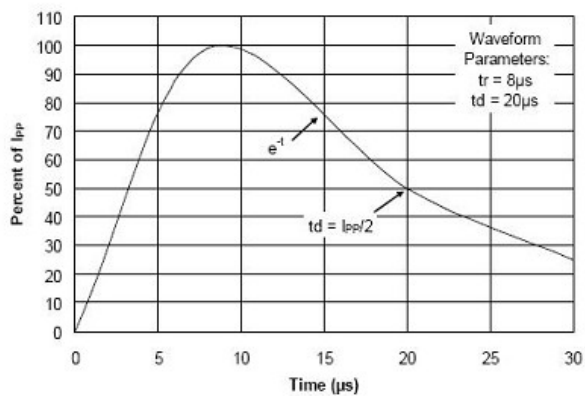
### MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified)

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

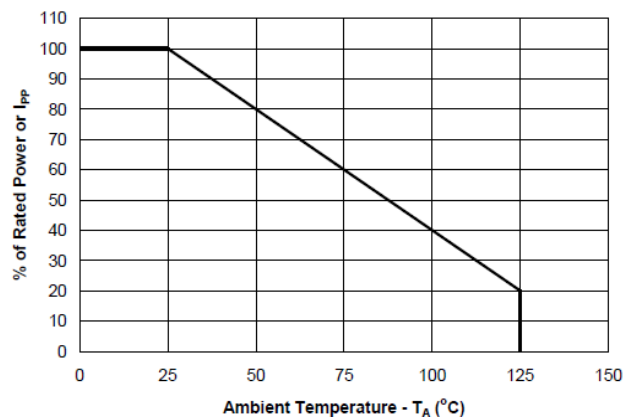
### ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified)

PART NUMBER	DEVICE MARKING	V <sub>RWM</sub>	V <sub>B</sub>	I <sub>T</sub>	V <sub>C</sub>	V <sub>C</sub>		I <sub>R</sub>	C <sub>T</sub>
		(V) (max.)	(V) (min.)	(mA)	@1A (max.)	(max.)	(@A)	(µA) (max.)	(pF) (typ.)
LC33DT3	TL3	3.3	4.0	1	7.0	9.0	5	40	5
LC05DT3	TL5	5.0	6.0	1	9.8	11.0	5	5	5
LC08DT3	TL8	8.0	8.5	1	13.4	15.0	5	5	5
LC12DT3	TLA	12.0	13.3	1	19.0	23.0	5	1	5
LC15DT3	TLB	15.0	16.7	1	24.0	28.0	5	1	5
LC24DT3	TLD	24.0	26.7	1	43.0	46.0	5	1	5
LC36DT3	TLH	36.0	40.0	1	51.0	68.0	5	1	5

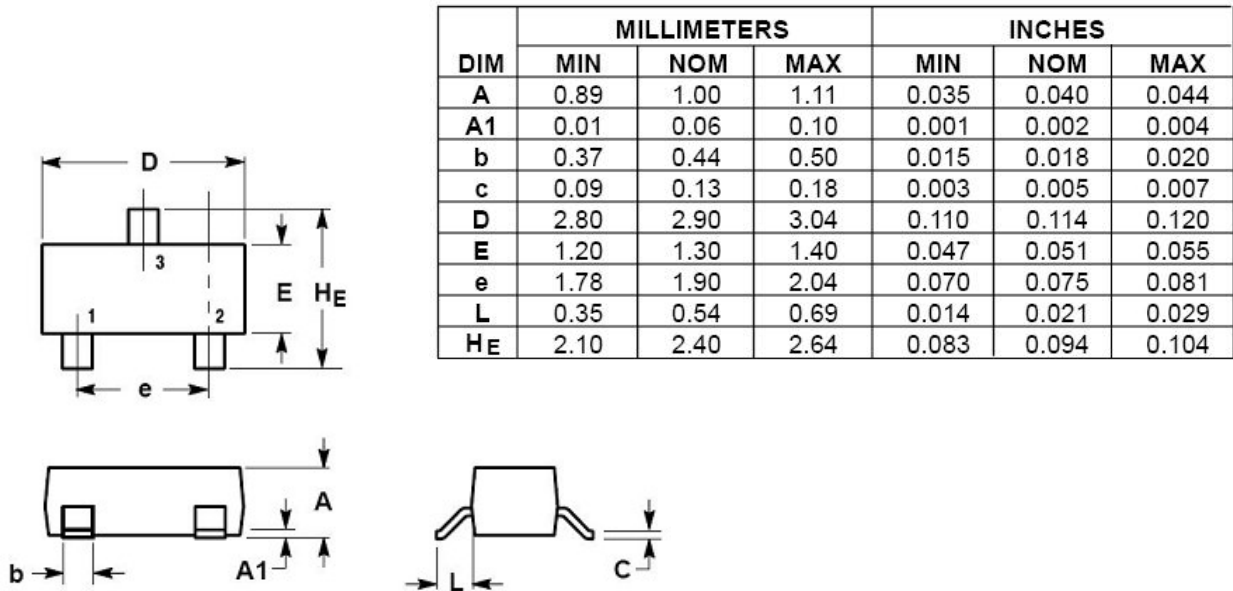
**Pulse Waveform**



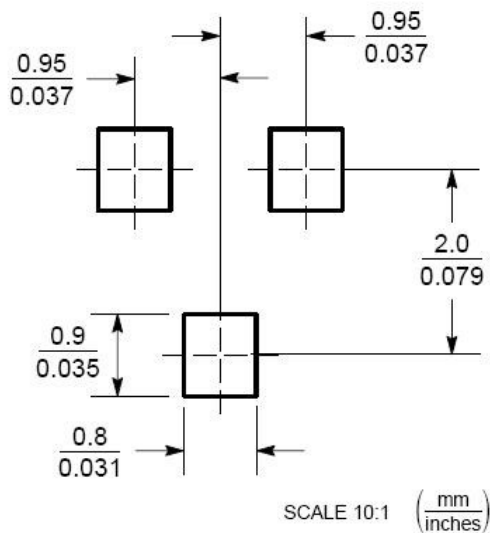
**Power Derating Curve**



## SOT-23 PACKAGE OUTLINE & DIMENSIONS



### \* SOLDERING FOOTPRINT



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