



Features

- ◆ 300 Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆ Transient protection for high speed data lines to IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact) IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆ Working voltages : 5V
- ◆ Protects two unidirectional line
- ◆ Low operating and clamping voltages
- ◆ Solid-state silicon avalanche technology

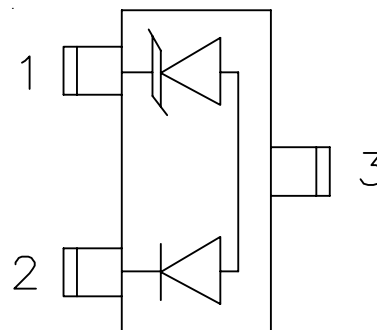
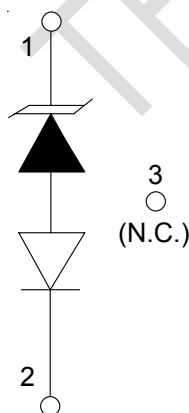
Applications

- ◆ USB Power & Data Line Protection
- ◆ Monitors and Flat Panel Displays
- ◆ I²C Bus Protection
- ◆ Portable Instrumentation
- ◆ Set Top Box

Mechanical Characteristics

- ◆ Package: SOT23
- ◆ Lead Finish: Matte Tin
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Pb-Free, Halogen Free, RoHS/WEEE Compliant
- ◆ Shipping Qty : 3000pcs/7Inch Tape & Reel

Dimensions and Pin Configuration





Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power(8/20μs)	Ppk	300	W
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			5	V	
Breakdown Voltage	VBR	6			V	IT = 1mA
Reverse Leakage Current	IR			1.0	uA	VRWM = 5V
Clamping Voltage	VC			9.8	V	I _{PP} = 1A (8 x 20μs pulse)
Clamping Voltage	VC			11	V	I _{PP} = 5A (8 x 20μs pulse)
Peak Pulse Current	I _{PP}			17	A	t _p = 8/20μs
Junction Capacitance	CJ			5	pF	VR = 0V, f = 1MHz, Pin 1 to Pin 2



Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

Fig1. 8/20 μs Pulse Waveform

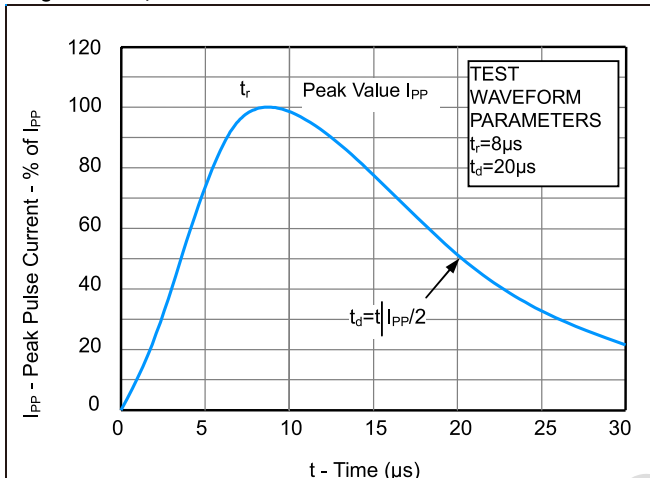


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

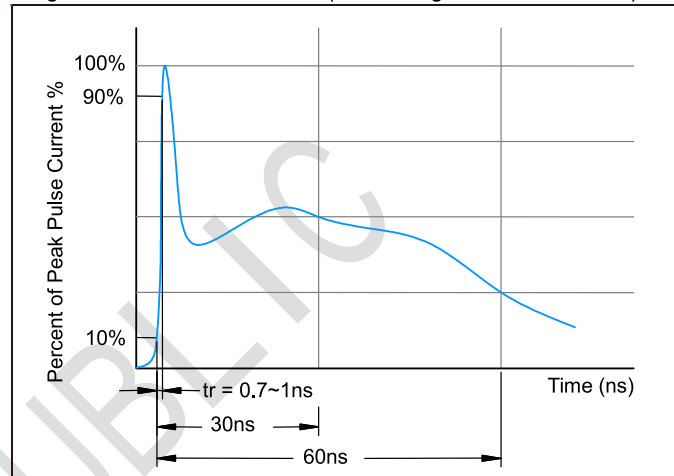
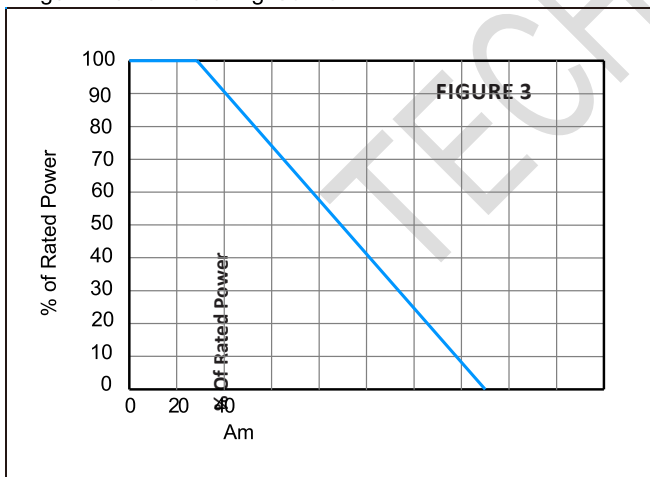
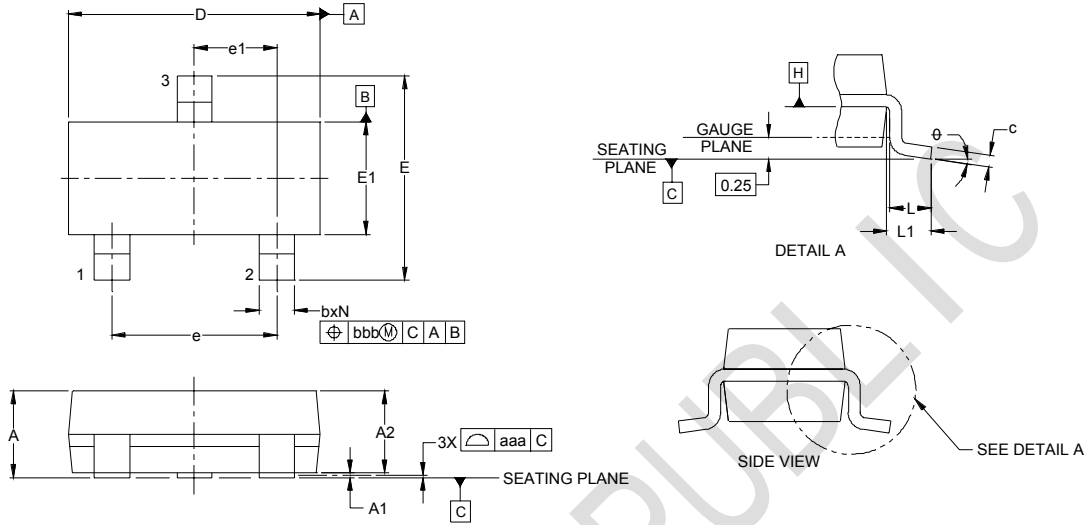


Fig3. Power Derating Curve



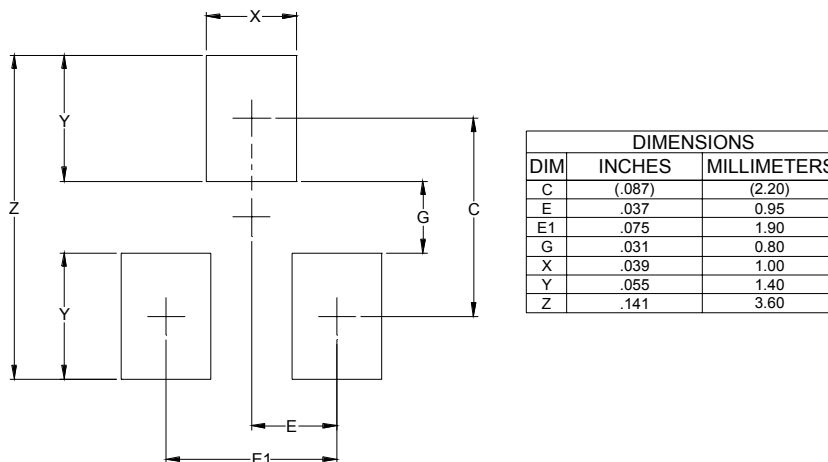


Outline Drawing - SOT23



DIM	INCHES		MILLIMETERS	
	MIN	NOM	MAX	MAX
A	.035	-	.044	0.89
A1	.000	-	.004	0.10
A2	.035	.037	.040	0.88
b	.012	-	.020	0.30
c	.003	-	.007	0.08
D	.110	.114	.120	2.80
E	.082	.093	.104	2.10
E1	.047	.051	.055	1.20
e	.075	-	-	1.90 BSC
e1	.037	-	-	0.95 BSC
L	.015	.020	.024	0.40
L1	.022	-	-	(0.55)
N	3	-	-	3
θ	0°	-	8°	0°
aaa	.004	-	-	0.10
bbb	.008	-	-	0.20

Land Pattern - SOT23



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.087)	(2.20)
E	.037	0.95
E1	.075	1.90
G	.031	0.80
X	.039	1.00
Y	.055	1.40
Z	.141	3.60

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