

Features

- ◆ Transient protection for high speed data lines to IEC 61000-4-2 (ESD) 30kV (air), 30kV (contact) IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆ Working voltages : 3.3V
- ◆ Protects one bidirectional line or two unidirectional lines
- ◆ Low operating and clamping voltages
- ◆ Solid-state silicon avalanche technology

Ordering Information

Part Number	Qty per Reel	Reel Size
PESD3V3S2UT-TP	3000	7"

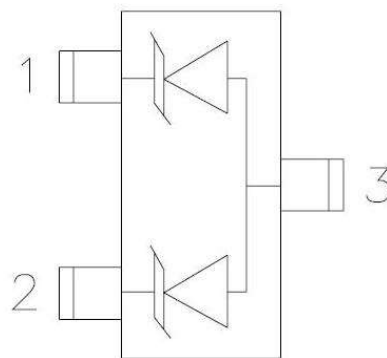
Mechanical Characteristics

- ◆ Package: SOT23
- ◆ Lead Finish: Matte Tin
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Pb-Free, Halogen Free, RoHS/WEEE Compliant

Applications

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

Dimensions and Pin Configuration



Circuit and Pin Schematic

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
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 ($T_A=25^\circ\text{C}$ unless otherwise specified)

Part Number	V _{RWM}	IDRM	VBR	IR	VC	IPP	VC	IPP	CO
	V	uA	V	mA	V	A	V	A	pF
		MAX	MIN		MAX		MAX		MAX
PESD3V3S2UT-TP	3.3	1	4.8	1	10	1	15	10	70

PROTECTION PRODUCTS
Typical characteristics

Fig1. 8/20 μ s Pulse Waveform

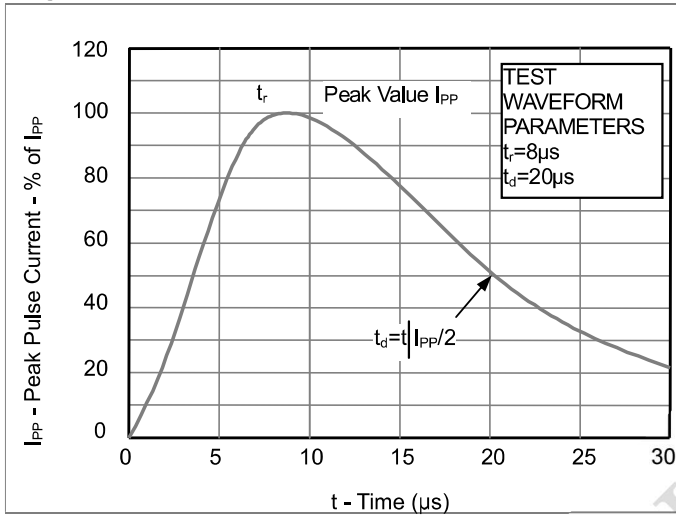


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

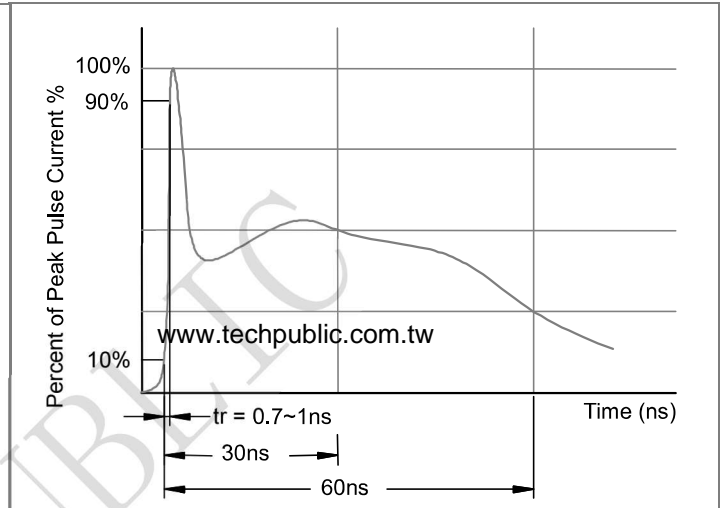
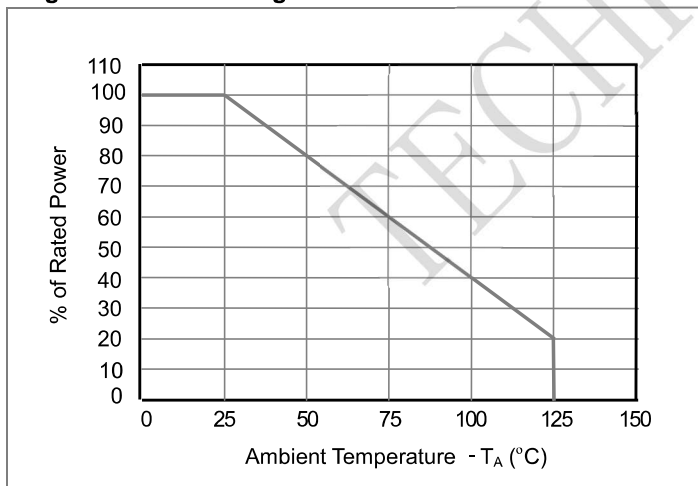
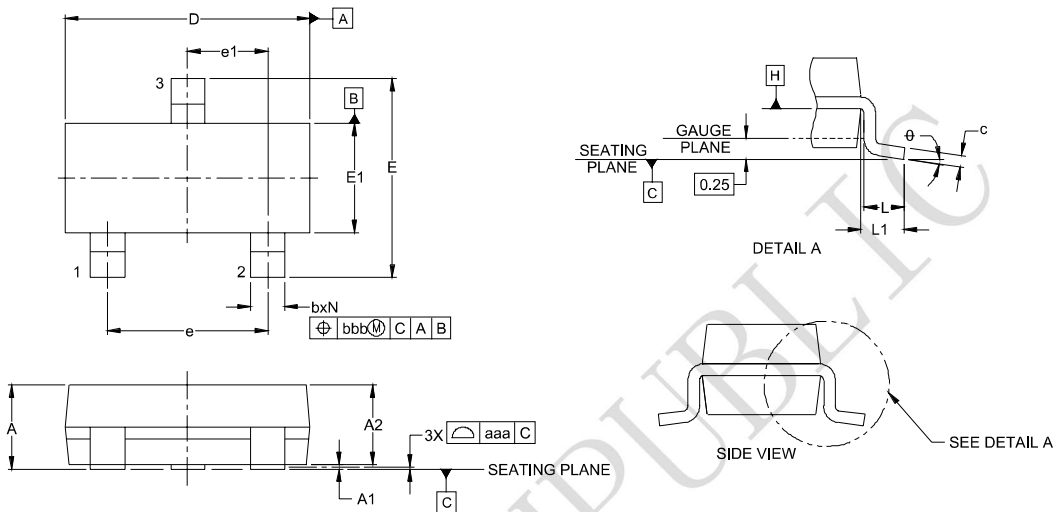


Fig3. Power Derating Curve



Outline Drawing - SOT23



DIM	INCHES		MILLIMETERS	
	MIN	NOM	MAX	MIN NOM MAX
A	.035	-	.044	0.89 - 1.12
A1	.000	-	.004	0.01 - 0.10
A2	.035	.037	.040	0.88 0.95 1.02
b	.012	-	.020	0.30 0.51
c	.003	-	.007	0.08 0.18
D	.110	.114	.120	2.80 2.90 3.04
E	.082	.093	.104	2.10 2.37 2.64
E1	.047	.051	.055	1.20 1.30 1.40
e	.075		1.90 BSC	
e1	.037		0.95 BSC	
L	.015	.020	.024	0.40 0.50 0.60
L1	.022		(0.55)	
N	3		3	
theta	0°	-	8°	0° - 8°
aaa	.004		0.10	
bbb	.008		0.20	

Land Pattern - SOT23

