

Features

- ◆ 150 Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆ Transient protection for high speed data lines to IEC 61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (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

Ordering Information

Part Number	Qty per Reel	Reel Size
TPCDSOT23-T05LC	3000	7"

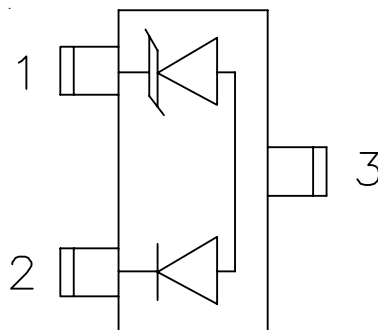
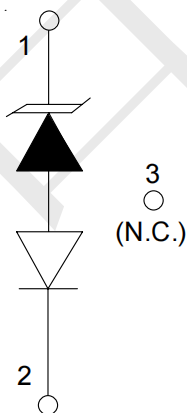
Mechanical Characteristics

- ◆ 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



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

Symbol	Parameter	Ratings	Units
P _{PK}	Peak Pulse Power (tp = 8/20μs)	150	Watts
T _L	Lead Soldering Temperature	260(10sec.)	°C
T _J	Operating Temperature	-55 to +125	°C
T _{STG}	Storage Temperature	-55 to +150	°C

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

Part Number	V _{DRM}	I _{DRM}	V _{BR}	I _R	V _c	I _{pp}	V _c	I _{pp}	CO
	V	μA	V	mA	V	A	V	A	pF
		MAX	MIN		MAX		MAX		MAX
TPCDSOT23-T05LC	5	1	5.5	1	9.8	1	15	12	5

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

Fig1. 8/20 μs Pulse Waveform

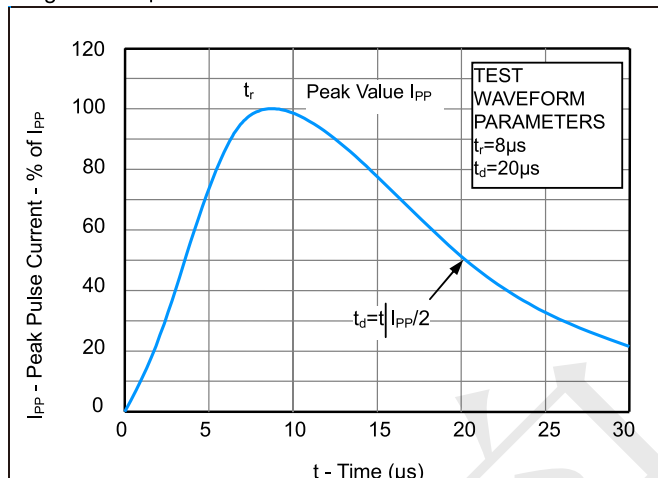


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

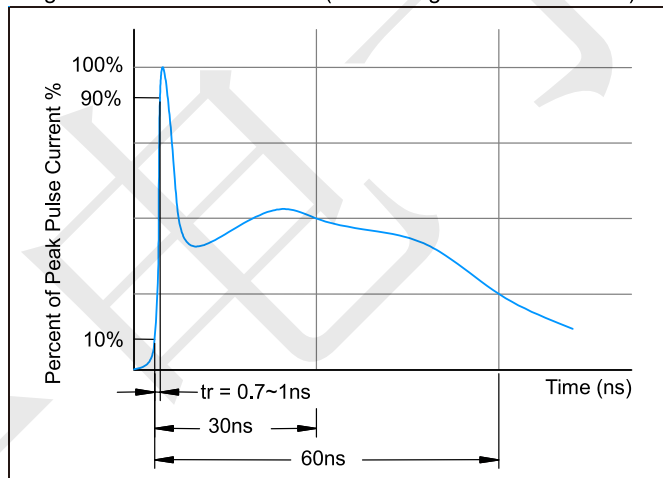


Fig3. Power Derating Curve

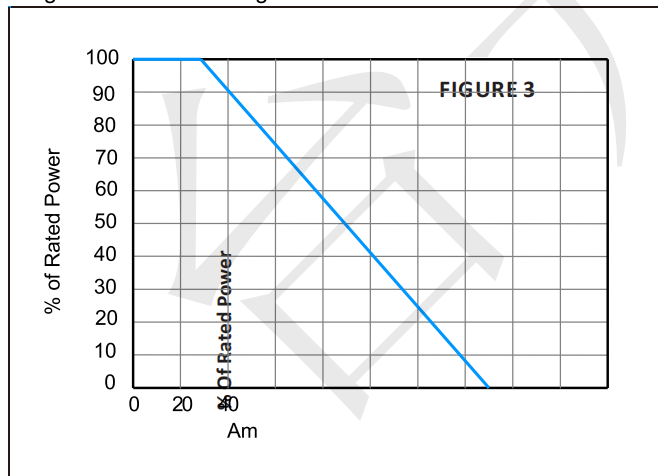
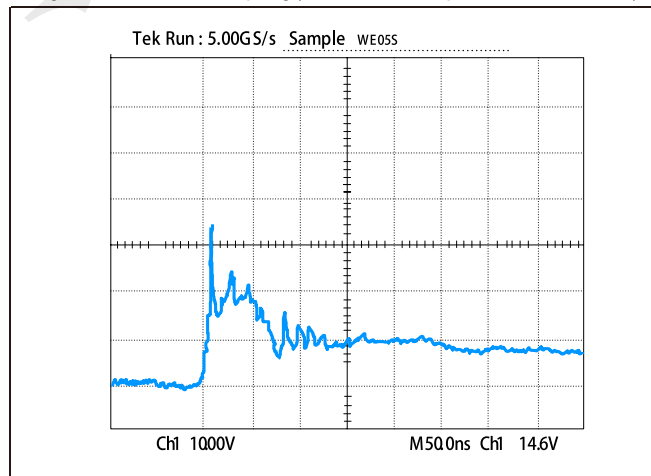
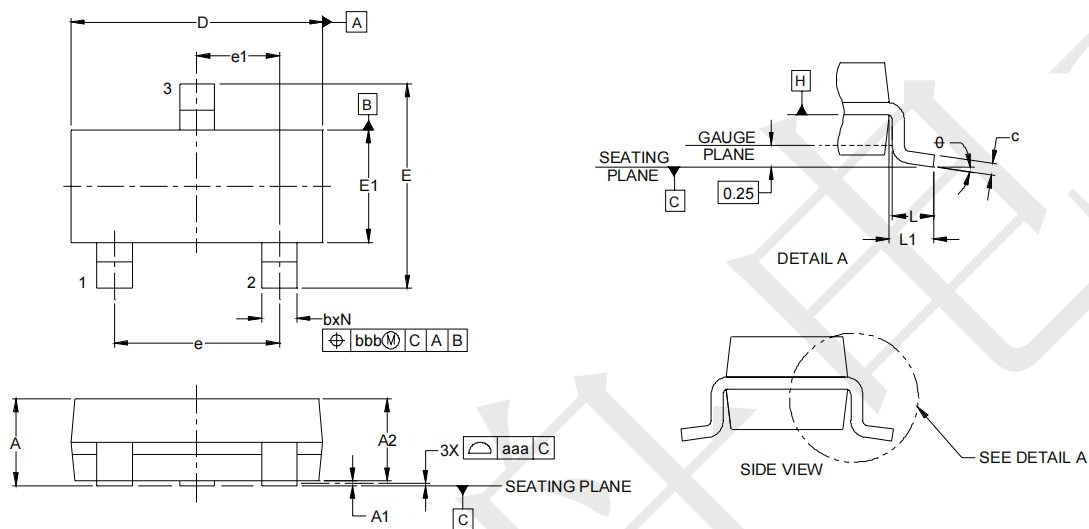


Figure 4: ESD Clamping(8kV Contact per IEC 61000-4-2)



Outline Drawing - SOT23



Land Pattern - SOT23

