

Features

- IEC61000-4-2 ESD 15KV Air,8KV contact compliance
- Small SOT23-6L surface mount package
- Protects three data lines
- Working voltage : 5V
- Low leakage current and low clamping voltage
- Solid-state silicon avalanche technology
- Lead Free/RoHS compliant
- Solder reflow temperature:Pure Tin-Sn,260-270°C
- Flammability rating UL 94V-0

Mechanical Characteristics

- Package: SOT23-6
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Pb-Free, Halogen Free, RoHS/WEEE Compliant



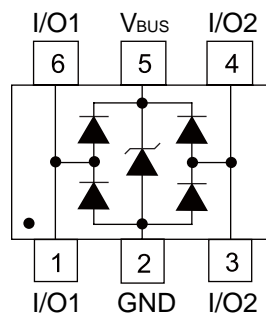
Applications

- USB 2.0 interface
- 10/100 Ethernet
- Personal digital assistants (PDA's)
- Notebooks, Desktops and Servers
- Portable instrumentation
- Digital cameras

Ordering Information

Part Number	Qty per Reel	Reel Size
TPESD0502S6	3000	7"

Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
ESD voltage (HBM contact)	V_{ESD}	± 8	kV
ESD voltage (AIR contact)		± 15	
Lead soldering temperature	T_L	260 (10 sec.)	$^\circ\text{C}$
Storage & operating temperature range	T_{STG}, T_J	-55~+150	$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse stand-off voltage	V_{RWM}				5	V
Reverse breakdown voltage	V_{BR}	$I_{\text{BR}}=1\text{mA}$	6			V
Reverse leakage current	I_{R}	$V_{\text{R}}=5.25\text{V}$ each I/O pin			1	μA
Clamping voltage ($t_p=8/20\mu\text{s}$)	V_{C}	$I_{\text{PP}}=1\text{A}$			12	V
Clamping voltage ($t_p=8/20\mu\text{s}$)	V_{C}	$I_{\text{PP}}=5\text{A}$			17	V
Off state junction capacitance	C_J	0Vdc, $f=1\text{MHz}$ Between I/O pins and GND		3.5		pF

PROTECTION PRODUCTS
Typical characteristics

Fig1. 8/20μs Pulse Waveform

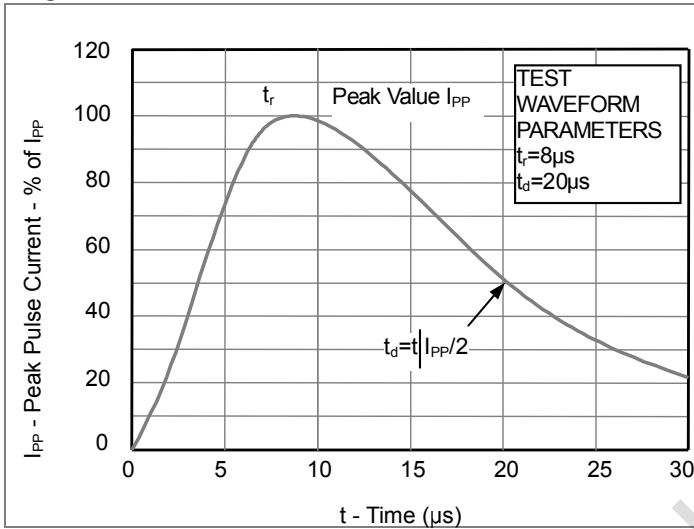


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

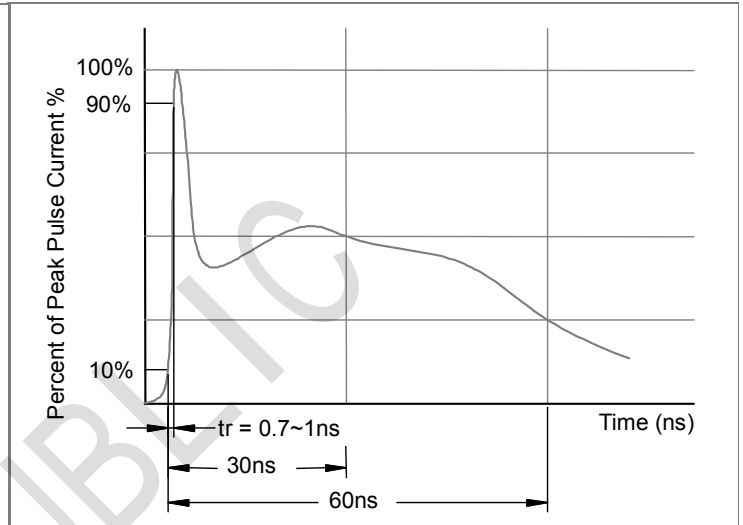
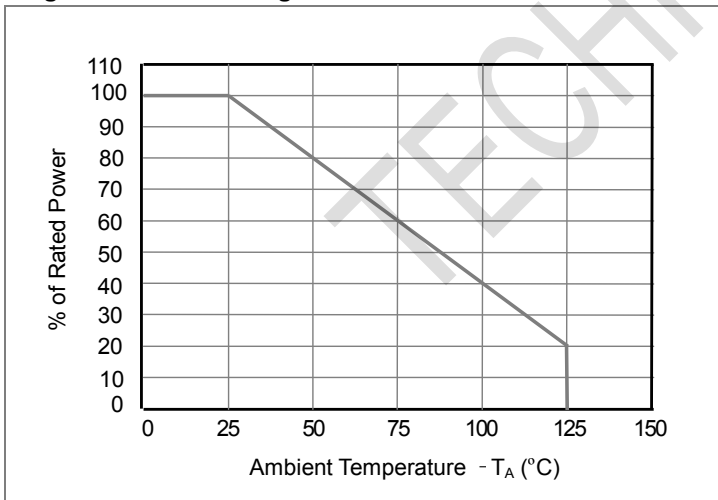
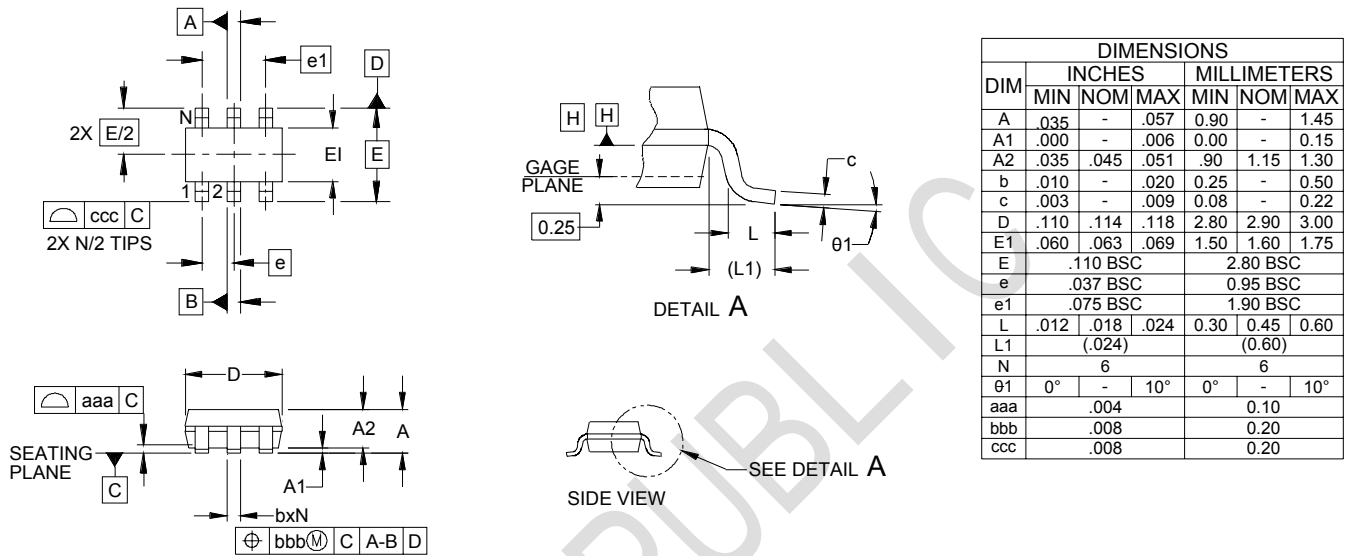


Fig3. Power Derating Curve



Outline Drawing - SOT23-6



Land Pattern - SOT23-6

