Leiditech

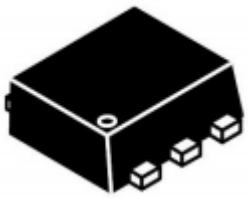
ESD0565T6

LOW CLAMPING VOLTAGE TVS DIODE ARRAY

Features

- 108 Watts Peak Pulse Power per Line (tp=8/
- Protects Four and Five I/O Lines
- Low Clamping Voltage
- Working Voltages : 5V
- Low Leakage Current
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ηs)
- IEC61000-4-5 (Lightning) 7A (8/20μs)

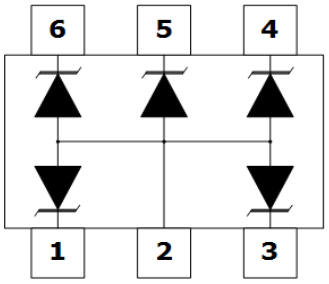
Dimensions SOT-563



Applications

- USB OTG
- I/Os interface
- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Peripherals
- Pagers

Pin Configuration



Mechanical Characteristics

- SOT-563 Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 3 Millgrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	108	W
ESD per IEC 61000−4−2 (Air)	V_{ESD}	±30	Kv
ESD per IEC 61000−4−2 (Contact)		±30	
Operating Temperature Range	T_J	-55 to +125	℃
Storage Temperature Range	T_{STJ}	-55 to +150	℃

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

Part Number	Device Marking	V_{RWM} (V)	V_{BR} (V)	I_T (mA)	V_C @1A	Vc		I_R μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
ESD0565T6	U5C	5	6	1	9.8	15.5	7	1	40

Characteristic Curves

Figure 1. 8 x 20μs Waveform

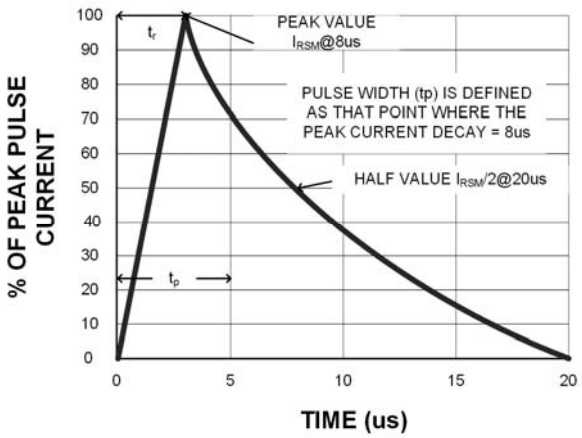


Figure 2. Power Derating Curve

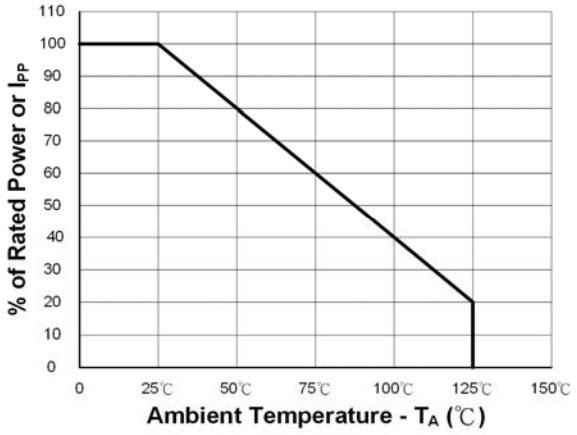
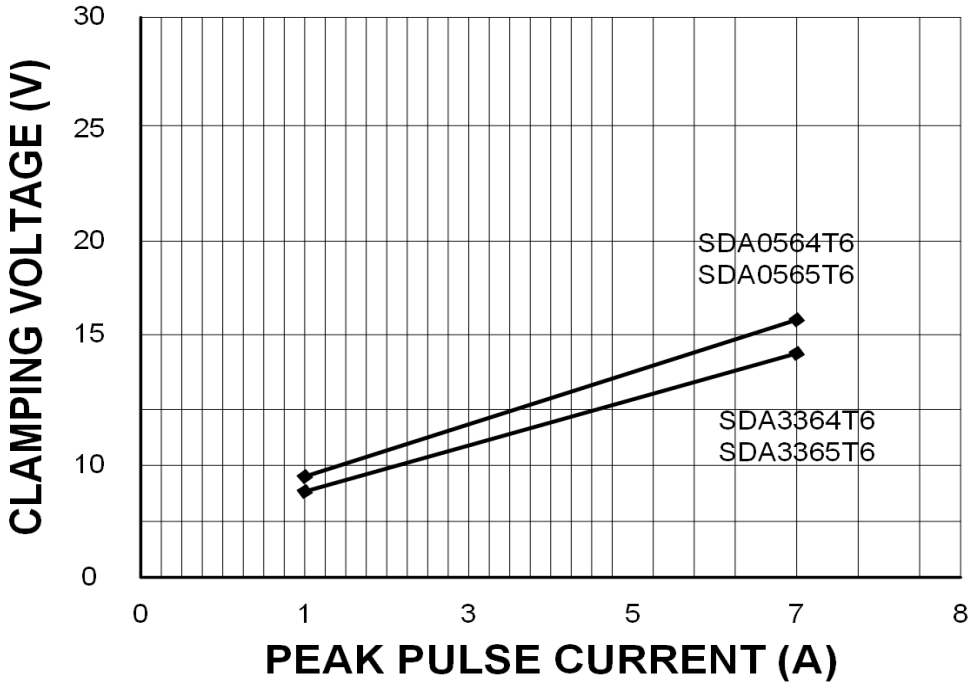
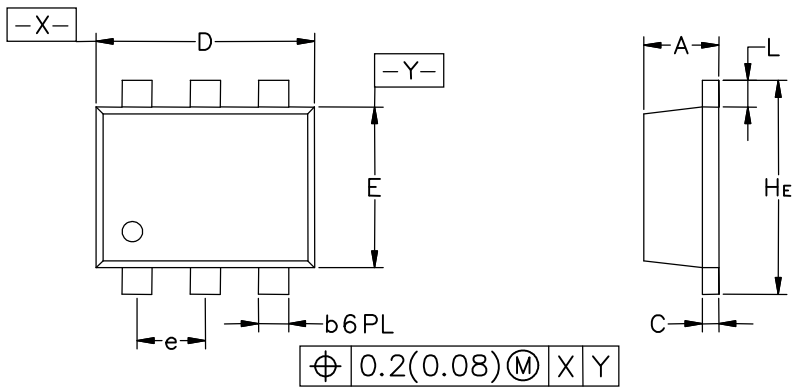


Figure 3. Clamping Voltage vs. Peak Pulse Current (tp=8/20us)



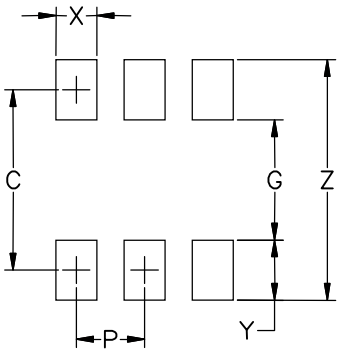
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SOT-563 Package Outline & Dimensions



Symbol	Inches			Millimeters		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.020	0.021	0.023	0.50	0.55	0.60
b	0.007	0.009	0.011	0.17	0.22	0.27
C	0.003	0.005	0.007	0.08	0.12	0.18
D	0.059	0.062	0.066	1.50	1.60	1.70
E	0.043	0.047	0.051	1.10	1.20	1.30
e	0.02 BSC			0.5 BSC		
L	0.004	0.008	0.012	0.10	0.20	0.30
H_E	0.059	0.062	0.067	1.50	1.60	1.70

Soldering Footprint



Symbol	Inches	Millimeters
C	0.0531	1.35
G	0.0354	0.90
P	0.0197	0.50
X	0.0118	0.30
Y	0.0177	0.45
Z	0.0709	1.80

Shanghai Leiditech Electronic Co.,Ltd
Email: sale1@leiditech.com
Tel : +86- 021 50828806
Fax : +86- 021 50477059

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