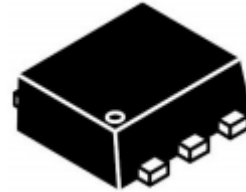


### Features

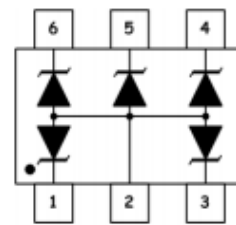
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 15\text{kV}$
    - Contact discharge:  $\pm 8\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)

RoHS Compliant

### Dimensions SOT-563



### Pin Configuration



### Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

### Mechanical Characteristics

- Package: SOT-563
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000pcs
- Reel Size: 7inch

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	Ppp	100	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 15$	Kv
ESD per IEC 61000-4-2 (Contact)		$\pm 8$	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

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

Part Number	Device Marking	V <sub>RWM</sub> (V)	V <sub>BR</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> @1A	V <sub>C</sub>		I <sub>R</sub> μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
SDA0505T6	U5	5	6	1	9.8	12	5	1	30

## Characteristic Curves

Fig1. 8/20μs Pulse Waveform



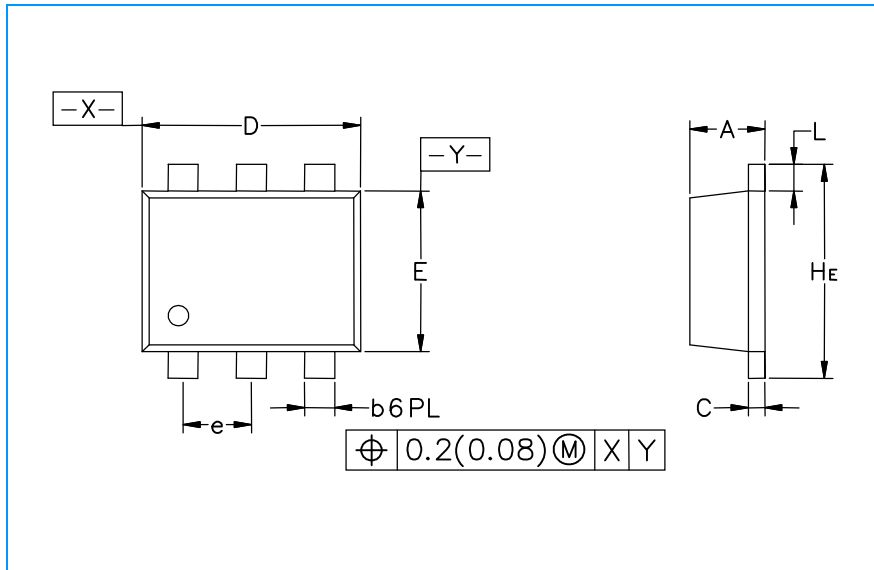
Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)



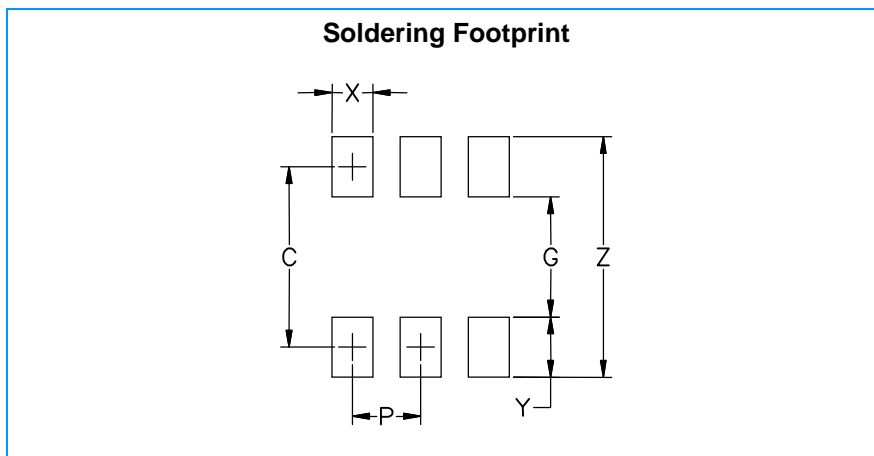
Fig3. Power Derating Curve



## SOT-563 Package Outline & Dimensions



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



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

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