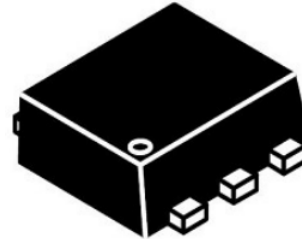


### Features

- 72 Watts Peak Pulse Power per Line ( $t_p=8/20 \mu s$ )
- Protects Two I/O Lines and Vcc
- Low Clamping Voltage
- RoHS Compliant
- IEC Compatibility
  - IEC61000-4-2 (ESD)  $\pm 17kV$  (air),  $\pm 14kV$  (contact)
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (LIGHTING) 4A (8/20  $\mu s$ )

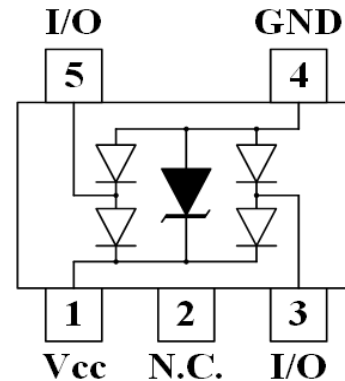
### Dimensions SOT-553



### Applications

- USB Port Protection
- HDMI/DVI Port Protection
- Digital Sensor Input Protection
- Industrial Controls
- LVDS Protection
- Automotive Applications

### Pin Configuration



### Mechanical Characteristics

- Package: SOT-553
- Molding Compound Flammability Rating : UL 94V-0
- Weight 3 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free
- Device Marking: UD

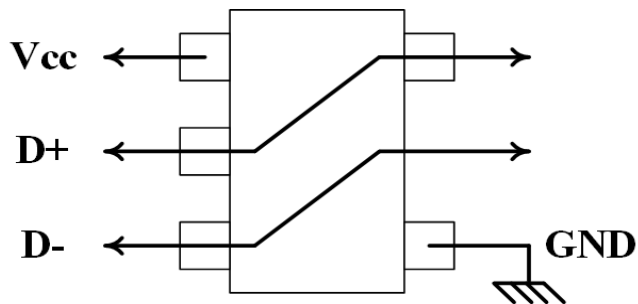
### Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu s$ )	Ppp	72	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 17$	KV
ESD per IEC 61000-4-2 (Contact)		$\pm 14$	
Operating Temperature Range	T <sub>J</sub>	-40 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT = 1mA	6			V
IR	Reverse Leakage Current	VRWM = 5V			1	μA
VC	Clamping Voltage	IPP = 1 A (8/20μs)			9.8	V
VC	Clamping Voltage	IPP = 4 A (8/20μs)			18	V
CJ	Capacitance	VR = 0V, f = 1MHz		0.7		pF

## Typic Application Schematic



## Characteristic Curves

Figure 1. 8 x 20  $\mu$ s Waveform

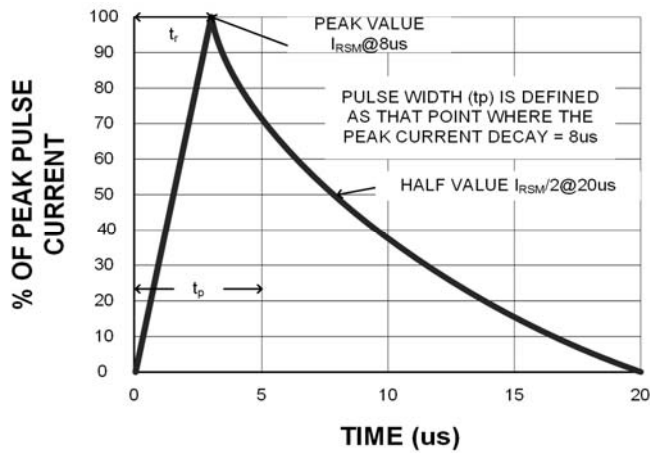


Figure 2. Power Derating Curve

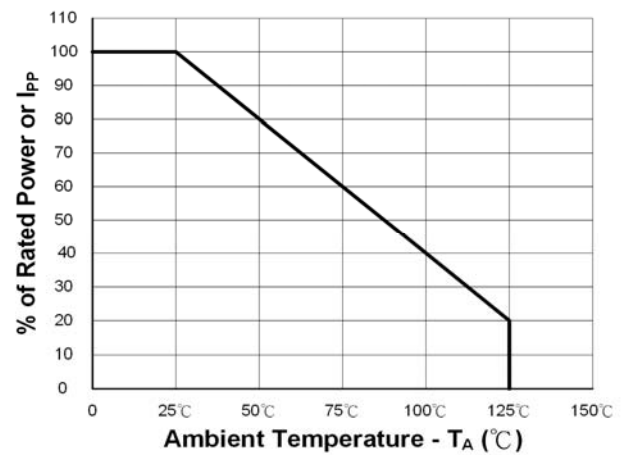
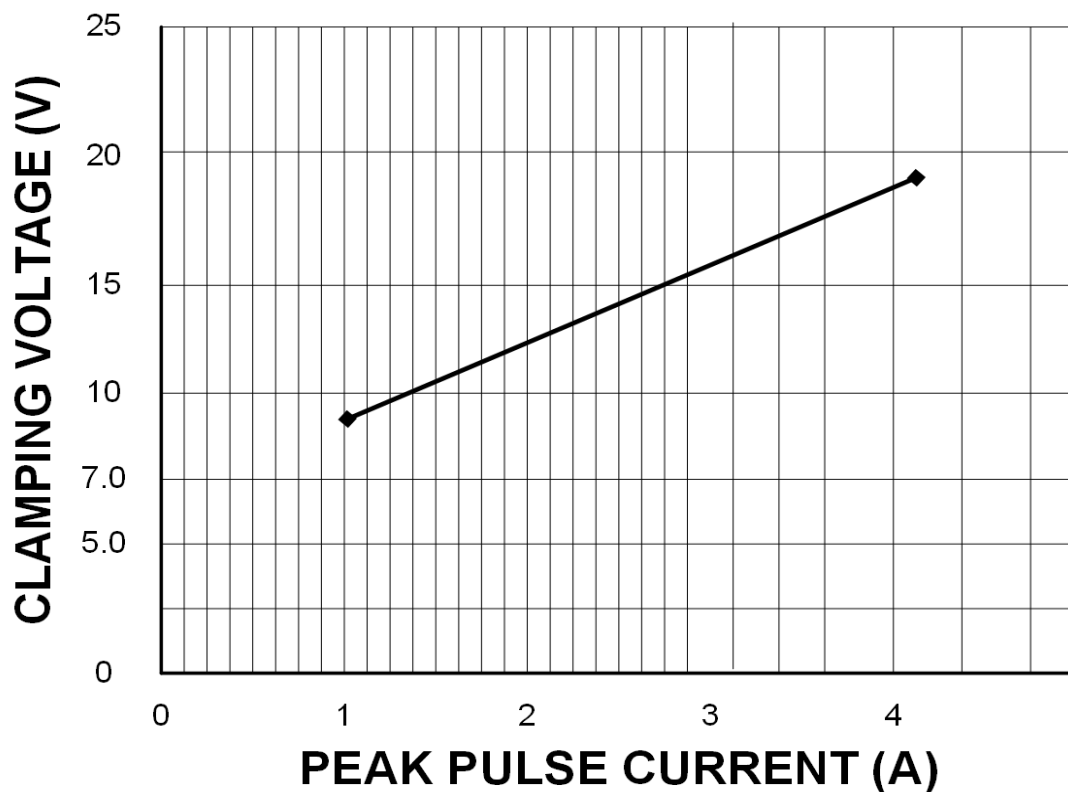
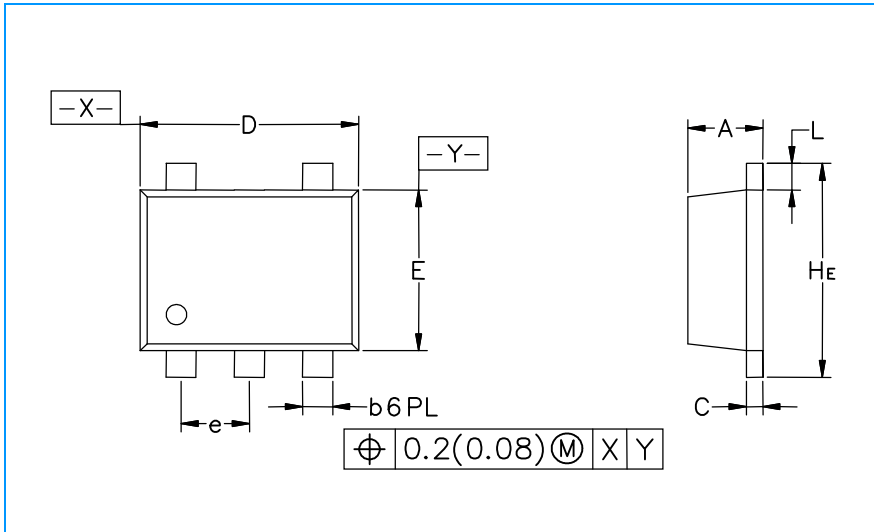


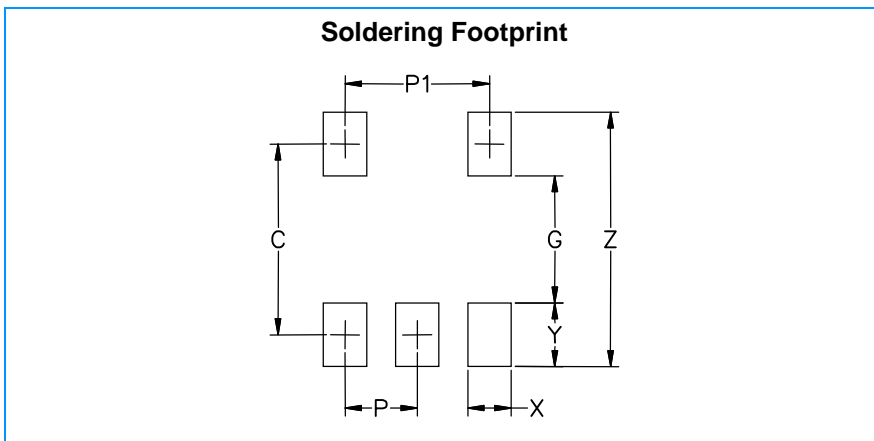
Figure 3. Clamping Voltage vs. Peak Pulse Current ( $t_p=8/20 \mu$ s)



## SOT-553 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>H<sub>E</sub></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>P1</b>	0.0394	1.0
<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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