

## 2-Line Low Capacitance TVS Diode Array

### Features

- ◆ Protects Two I/O Lines and Vcc
- ◆ Low clamping voltage
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 17\text{kV}$
    - Contact discharge:  $\pm 14\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/500ns)
  - IEC61000-4-5 (Lightning) 4A (8/20 $\mu\text{s}$ )
- ◆ RoHS Compliant

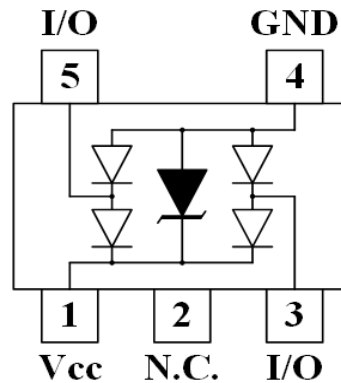
### Applications

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

### Mechanical Characteristics

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

### Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	P <sub>pp</sub>	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

### Ordering Information

Part Number	Marking	Packaging	Reel Size
FTV0524S5	UD	3000/Tape & Reel	7 inch



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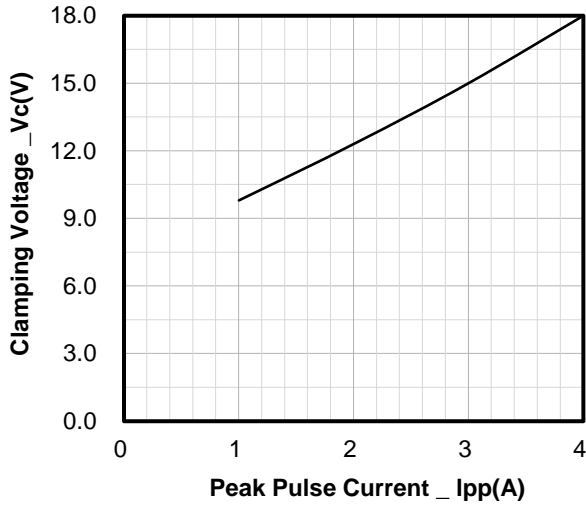
### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)

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

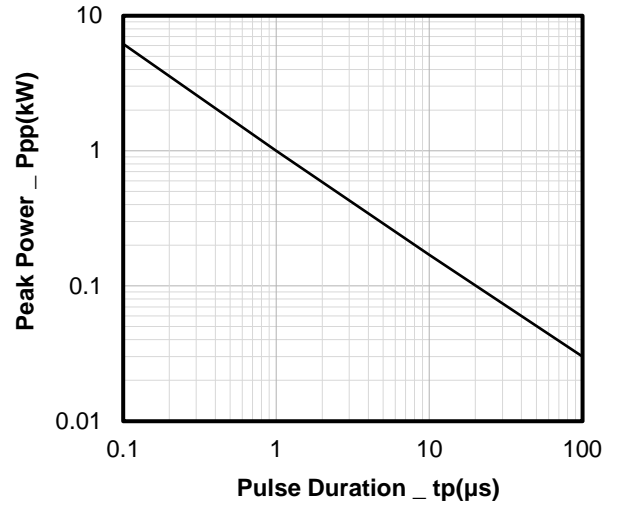


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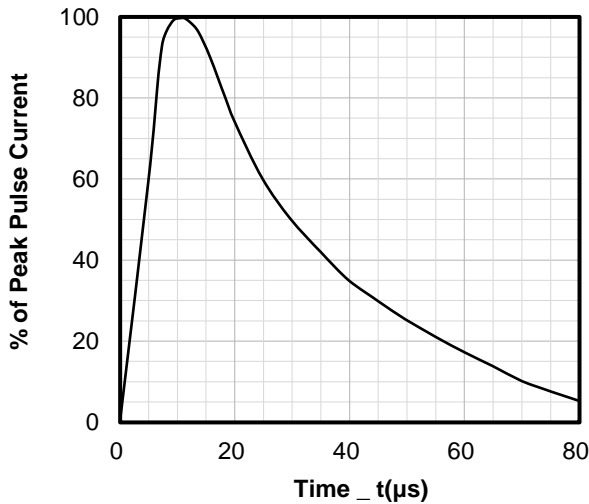
### Typical Performance Characteristics (TA=25°C unless otherwise Specified)



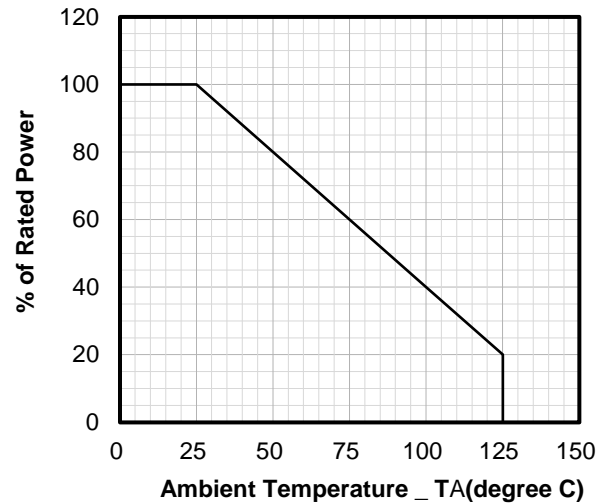
Clamping Voltage vs. Peak Pulse Current



Peak Pulse Power vs. Pulse Time



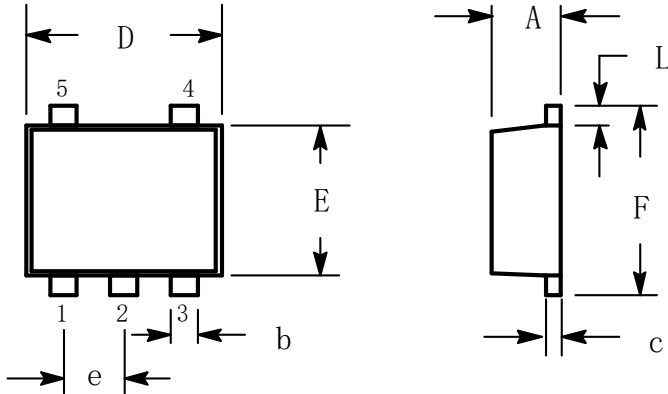
8 X 20μs Pulse Waveform



Power Derating Curve

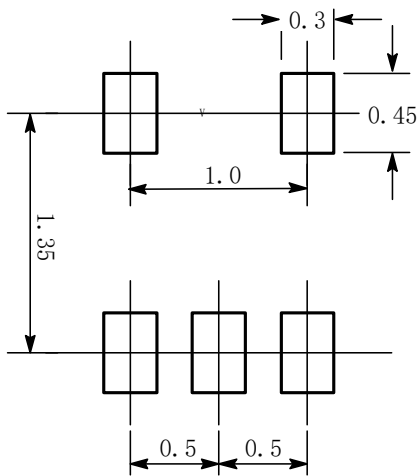
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SOT-553 Package Outline Drawing



DIM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.55	0.60	0.020	0.022	0.024
b	0.17	0.22	0.27	0.007	0.009	0.011
c	0.08	0.13	0.18	0.003	0.005	0.007
D	1.50	1.60	1.70	0.059	0.063	0.067
e	0.50 BSC			0.020 BSC		
E	1.10	1.20	1.30	0.043	0.047	0.051
L	0.10	0.20	0.30	0.004	0.008	0.012
F	1.50	1.80	1.70	0.059	0.063	0.067

Suggested Land Pattern



NOTE: CONTROLLING DIMENSION: MILLIMETERS