

## Low Capacitance 4-Line TVS Array

### Features

- Ultra low capacitance: 0.3pF typical (I/O to I/O)
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- Up to 4 data lines and one power line protects
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge: ±30kV
    - Contact discharge: ±25kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
- ROHS Compliant

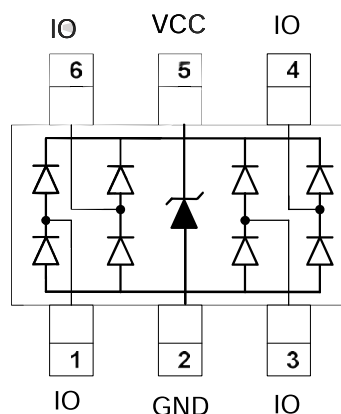
### Mechanical Characteristics

- Package: SOT363
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Shipping Qty :3000/7Inch Tape & Reel

### Application

- USB 2.0 and USB 3.0 Ports
- USB OTG
- Digital video interface(DVI)
- Monitor and Flat Panel Displays
- PCI Express and Serial SATA Ports
- Gigabit Ethernet
- IEEE 1394 firewire ports
- Consumer products (STB, DVD, DSC, DVC...)

### Dimensions and Pin Configuration





# FESD0514C6

## Low Capacitance 4-Line TVS Array

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs) (Vcc-GND)	P <sub>pk</sub>	250	W
ESD per IEC61000-4-2 (Air) ESD per IEC61000-4-2 (Contact)	V <sub>ESD</sub>	±30 ±25	kV
Operating Temperature Range	T <sub>J</sub>	55 to +125	°C
Storage Temperature Range	T <sub>stg</sub>	55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V <sub>RWM</sub>			5	V	
Breakdown Voltage	V <sub>BR</sub>	6		9.5	V	I <sub>T</sub> =1mA
Leakage Current	I <sub>Leak</sub>			100	nA	V <sub>RWM</sub> =5V
Clamping Voltage (I/O-GND)	V <sub>C</sub>			16	V	I <sub>PP</sub> =4.5A, T <sub>p</sub> =8/20µs
Clamping Voltage(Vcc-GND)	V <sub>C</sub>			17	V	I <sub>PP</sub> =15A, T <sub>p</sub> =8/20µs
Junction Capacitance (I/O to GND)	C <sub>J</sub>		0.6	0.7	pF	V <sub>R</sub> =0V, f=1MHz,
Junction Capacitance (I/O to I/O )	C <sub>J</sub>		0.3	0.5	pF	V <sub>R</sub> =0V, f=1MHz,

## Low Capacitance 4-Line TVS Array

### Typical Performance Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise Specified)

Fig1. 8/20 $\mu\text{s}$  Pulse Waveform

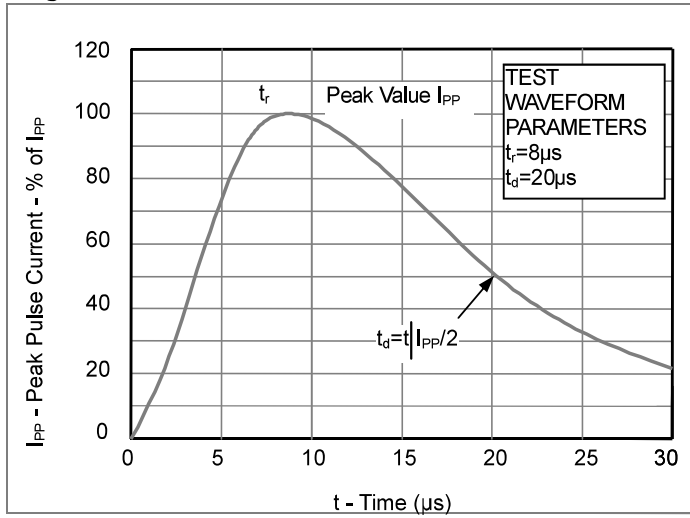


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

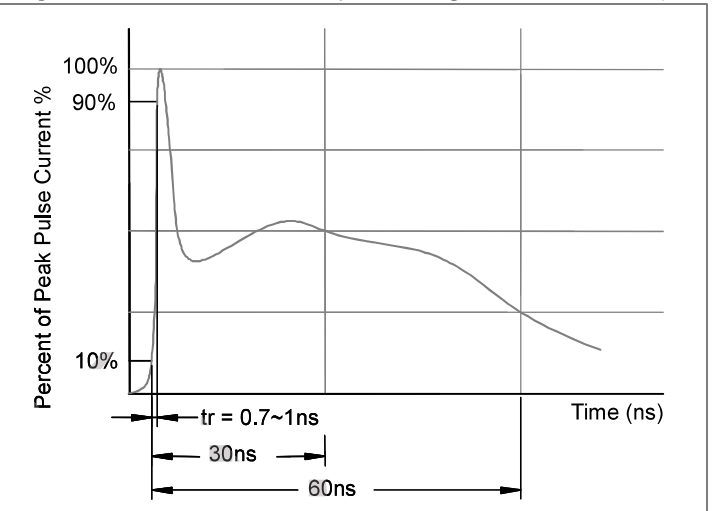
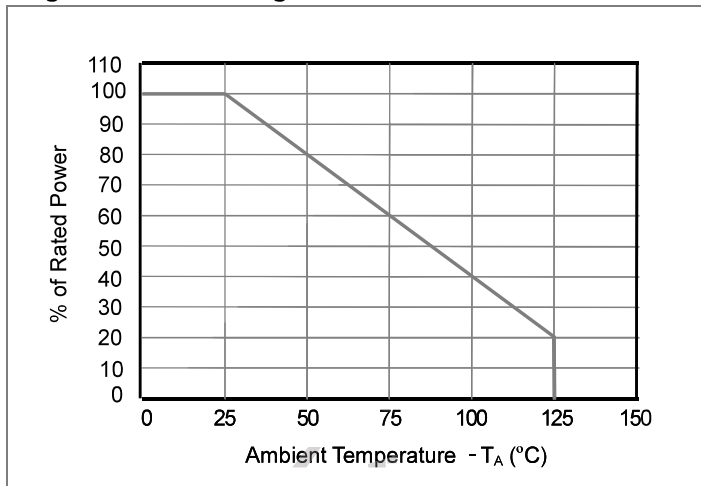


Fig3. Power Derating Curve

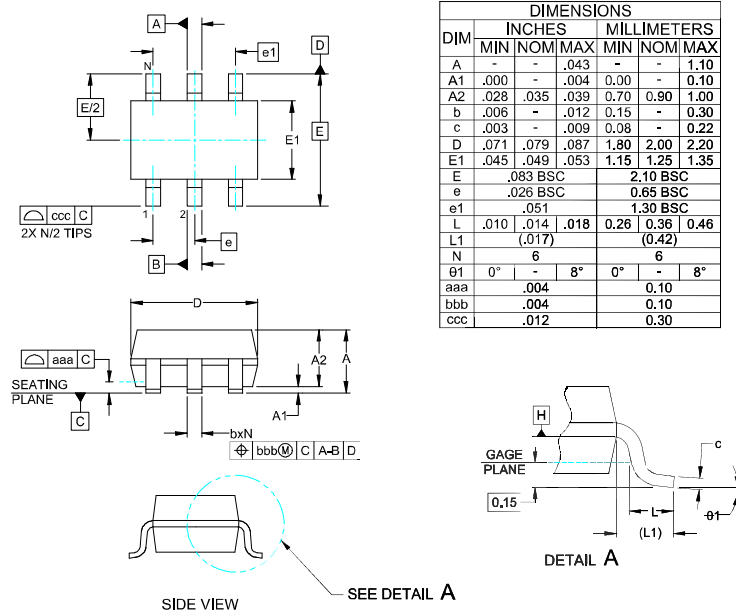




# FESD0514C6

## Low Capacitance 4-Line TVS Array

### Outline Drawing - SOT-363(2.0X2.1)



### Land Pattern - SOT-363

