

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: $\pm 25\text{kV}$
Contact discharge: $\pm 25\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 6A (8/20 μs)
- RoHS Compliant

Applications

- USB Ports
- SIM Ports
- Smart Phones
- Wireless Systems
- Set-top box and digital TV
- Digital video interface (DVI)
- Ethernet 10/100 Base T

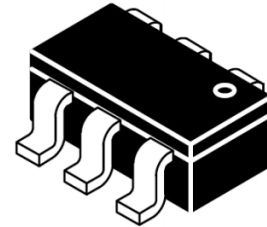
Mechanical Characteristics

- Package: SOT-26
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000 pcs
- Reel Size: 7inch
- Device Marking: V52

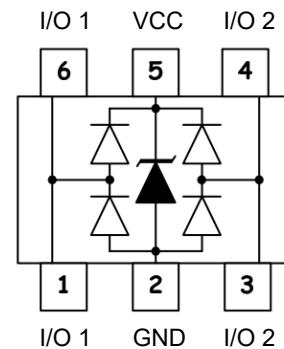
Absolute Maximum Ratings ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	70	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 25	kV
ESD per IEC 61000-4-2 (Contact)		± 25	
Operating Temperature Range	T _J	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T _{STJ}	-55 to +125	$^{\circ}\text{C}$

Dimensions SOT-26



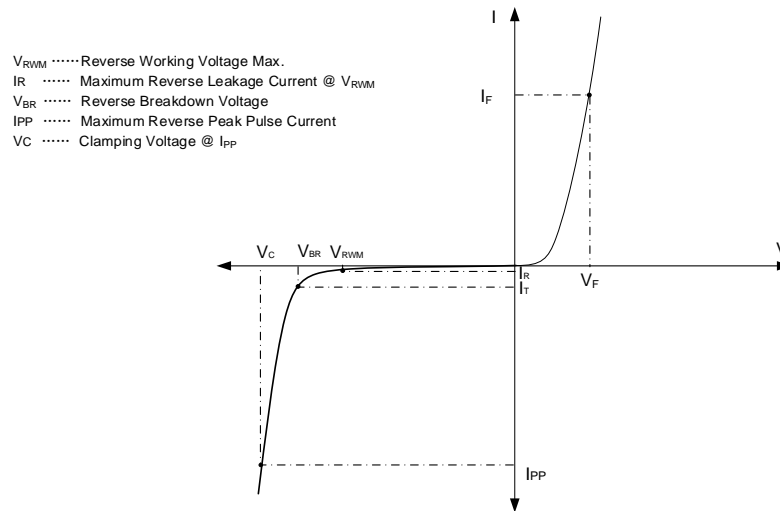
Pin Configuration



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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM	Any I/O pin to ground			5	V
Breakdown Voltage	VBR	IT = 1mA, any I/O pin to ground	6			V
Reverse Leakage Current	IR	VRWM = 5V, any I/O pin to ground			0.5	μA
Clamping Voltage	VC	I _{PP} = 1A (8 x 20μs pulse), any I/O pin to ground			9	V
Clamping Voltage	VC	I _{PP} = 6A (8 x 20μs pulse), any I/O pin to ground			12	V
Junction Capacitance	C _J	VR = 0V, f = 1MHz, between I/O pins		0.45		pF
Junction Capacitance	C _J	VR = 0V, f = 1MHz, any I/O pin to ground		0.8	1.0	pF

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



Note1: 8/20μs pulse waveform.

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

Figure 1: Peak Pulse Power vs. Pulse Time

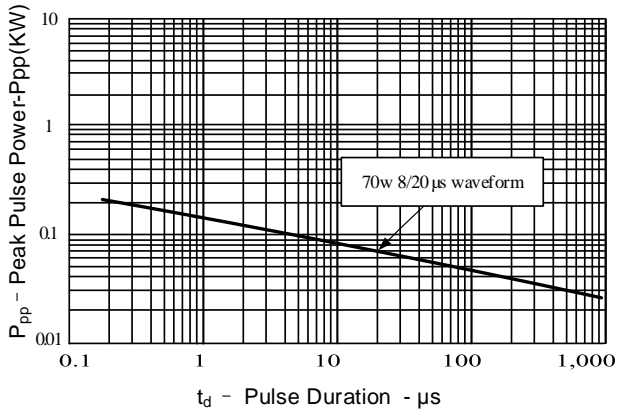


Figure 2: Power Derating Curve

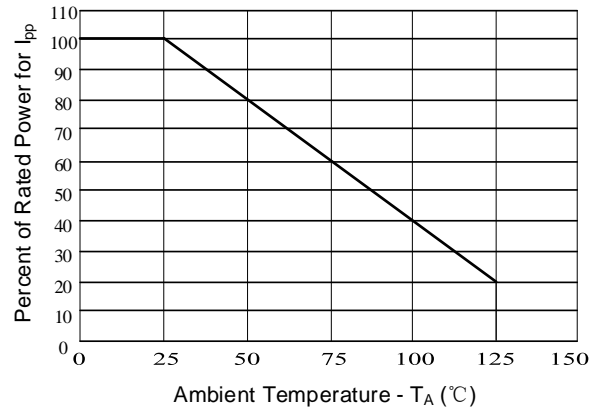


Figure 3: 8/20 μs Pulse Waveform

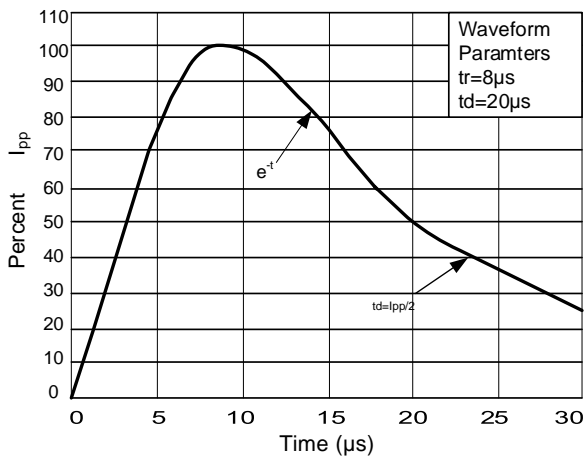
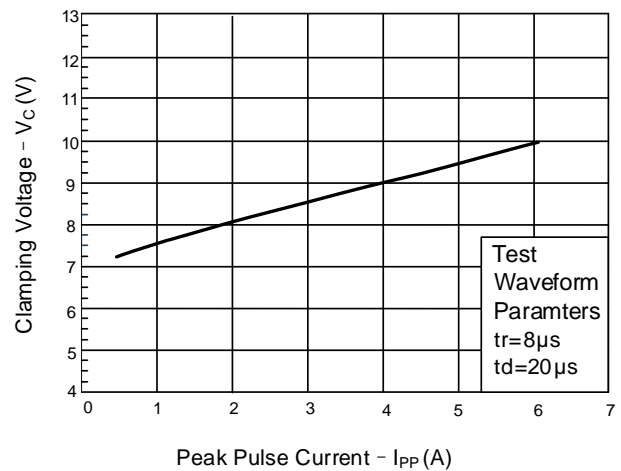
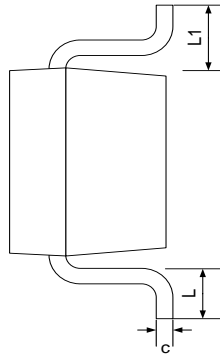
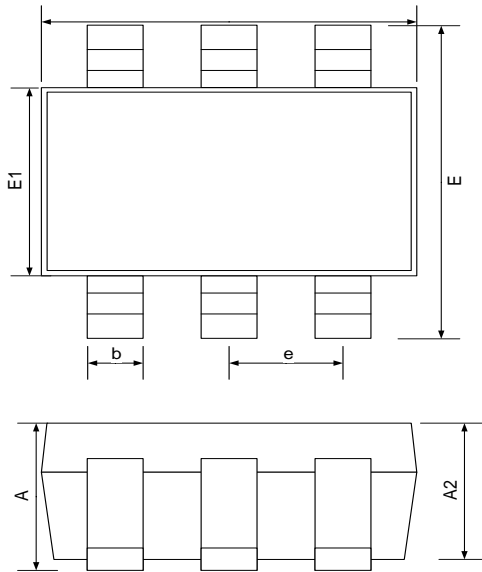


Figure 4: Clamping Voltage vs. I_{pp}

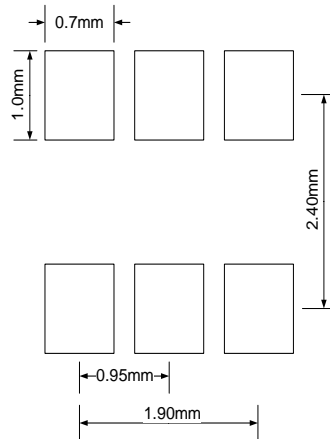


SOT-26 Package Outline Drawing



COMMON DIMENSION (mm)			
PKG	SOT23-6		
REF.	MIN.	NOM.	MAX.
A	1.050	1.100	1.250
A2	1.000	1.100	1.200
b	0.300	0.450	0.550
c	0.120		0.220
D	2.820	2.920	3.020
E	2.600	2.800	3.000
E1	1.500	1.620	1.720
e	0.950(BSC)		
L	0.300	0.450	0.600
L1		0.590	

Suggested Land Pattern



Notes: This PCB Layout Is For Reference Purposes Only.

NOTICE

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