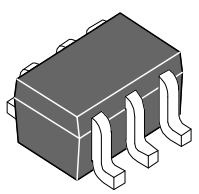
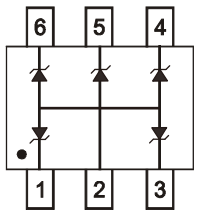
Transient Voltage Suppressors for ESD Protection

Features

- Ultra Low Capacitance: 28 pF Typ
- Low Clamping Voltage
- Working voltage: 5V
- Low Leakage
- 75 Watts peak pulse power (tp=8/20us)





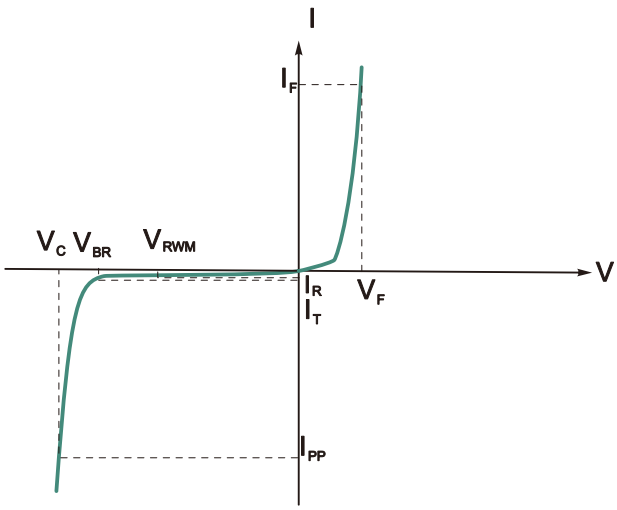
Top View
Simplified outline SOT-363 and symbol

End Equipment

- Power lines
- Personal digital assistants (PDA's)
- Microprocessors based equipment
- Notebooks, Desktops, and Servers
- Cell phone Handsets and Accessories
- Portable Electronics
- Peripheral

Electronics Parameter

Parameter	Symbol
Maximum Reverse Peak Pulse Current	I_{PP}
Clamping Voltage @ I_{PP}	V_C
Peak Reverse Working Voltage	V_{RWM}
Reverse Leakage Current @ V_{RWM}	I_R
Breakdown Viltage @ I_T	V_{BR}
Test Current	I_T
Forward Current	I_F
Forward Voltage @ I_F	V_F



Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20uS)	P_{pk}	75	W
Peak Pulse Current	Ipp	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±25 ±20	KV
Operating Temperature Range	T_J	-40 to +125	℃
Storage Temperature Range	T_{stg}	-55 to +150	℃

Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse stand-off Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T=1mA	6	7	9	V
Reverse Leakage Current	I_R	V_R=5V,Ta=25℃		10	100	nA
Clamping Voltage	V_C	Ipp=1A,tp=8/20us		8	10	V
		Ipp=5A,tp=8/20us		11	15	V
Junction Capacitance	Cj	V_R=0V,f=1MHz		28	40	pF

Typical Characteristics

Fig.1 Pulse Waveform

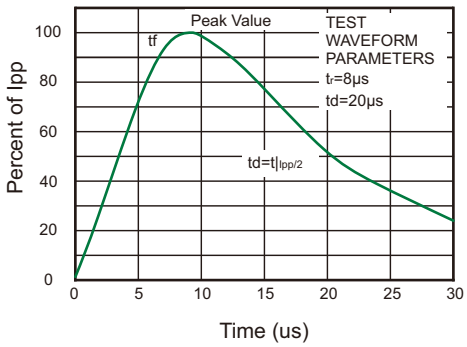


Fig.2 Contact discharge current waveform per IEC61000-4-2

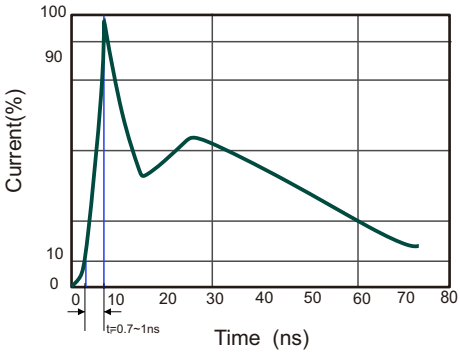
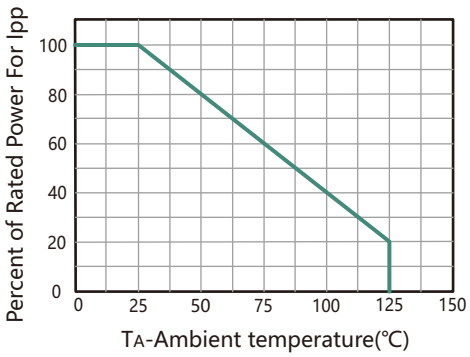
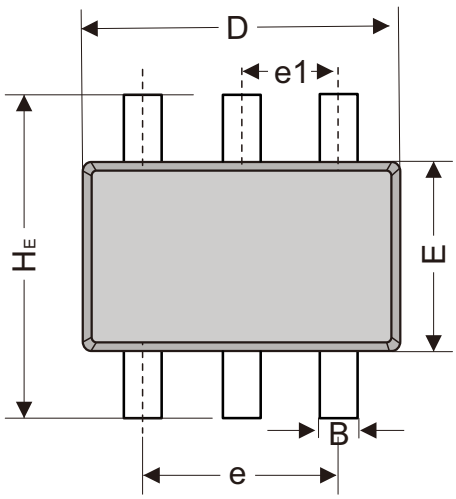
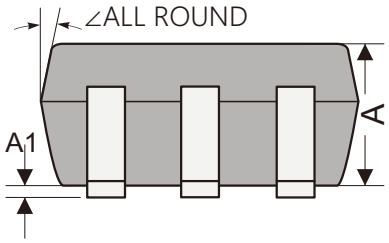


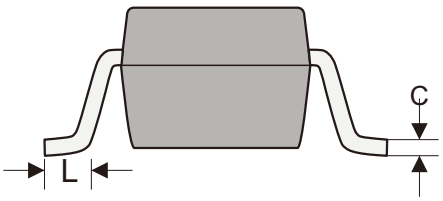
Fig.3 Power Derating Curve



SOT-363 Package Outline Dimensions



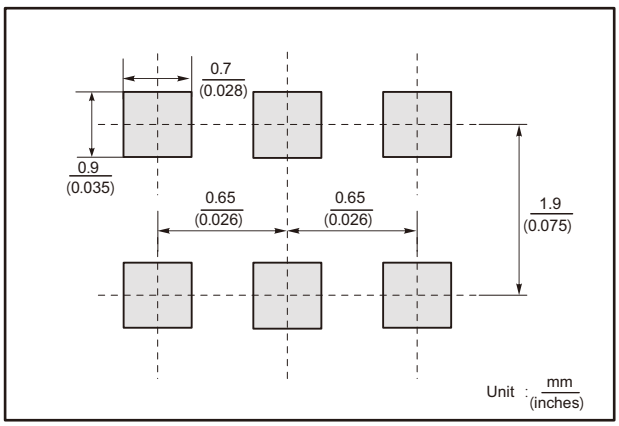




SOT-363 mechanical data

UNIT		A	A1	B	C	D	E	e	e1	L	HE
mm	max	1.00	0.10	0.30	0.25	2.20	1.35	1.40	0.65 (BSC)	0.320 REF	2.40
	min	0.80	0.00	0.20	0.10	1.80	1.15	1.20			2.00
mil	max	39.37	3.94	11.81	9.84	86.61	53.15	55.12	25.59 (BSC)	12.56 REF	86.61
	min	31.50	0.00	7.87	3.94	70.87	45.28	47. 24			78.74

The recommended mounting pad size



Marking

Type number	Marking code
ESD5V0TF3A	5C

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