1. Protection Solution To Meet

- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 8A (8/20μs)

2. Features

- Protects one bi-directional I/O line
- Low clamping voltage
- Working voltage: 5V
- Low leakage current
- RoHS compliant

3. Main Application

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA's)
- Notebooks, desktops, and servers
- Portable instrumentation
- Peripherals
- Digital cameras

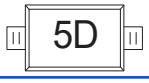
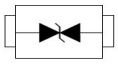
- SOD-323 package
- Molding compound flammability rating: UL 94V-0

- Marking code: 5D

5. Absolute Maximum Ratings(T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Contact)	$V_{ESD-Contact}$	±30	KV
ESD per IEC 61000-4-2 (Air)	$V_{ESD-Air}$	±30	KV
Peak Pulse Power(8/20us)	P_{pp}	96	W
Operating Temperature	T_{OPT}	-55~+150	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

6. Pinning information

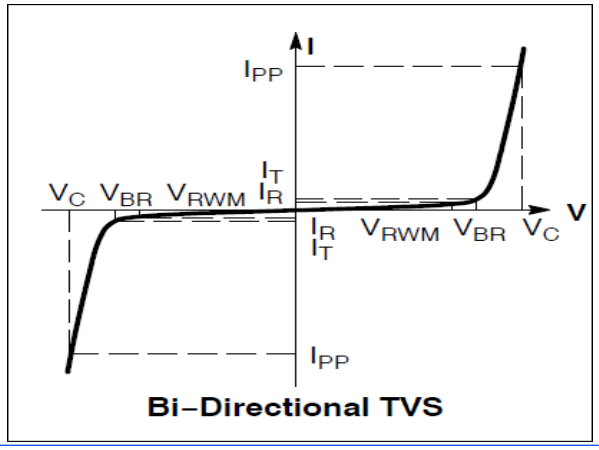
Pin	Symbol	Description	Simplified outline	Equivalent Circuit	Marking	Package
1	A	Anode			5D	SOD-323
2	A	Anode				

7. Electrical Characteristics(Tamb=25°C)

Parameter	Symbols	Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T =1mA	6.0		8.5	V
Reverse Leakage Current	I_R	V_{RWM}=±5V			0.1	uA
Clamping Voltage	V_C	I_{pp}=1A , t_p=8/20us			8.5	V
		I_{pp}=8A , t_p=8/20us			12	V
Junction Capacitance	C_J	V_R =0V ,f=1MHz		18	25	pF

8. Electrical Parameters

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current@V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @I_T
P_{PK}	Peak Power Dissipation
C	Capacitance @ V_R =0 and f=1MHz



9. Typical Characterisitics

Fig.1 8/20us Waveform Per iec6100-4-5

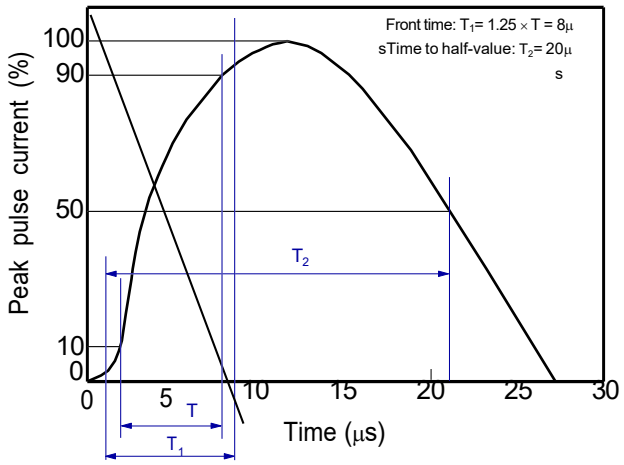


Fig.2 Contact Discharge Current Waveform per IEC61000-4-2

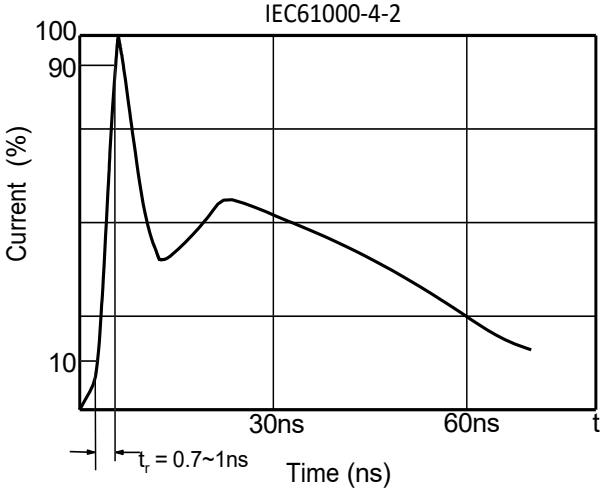


Fig.3 ClampingVoltage VS Peak Pulse Current

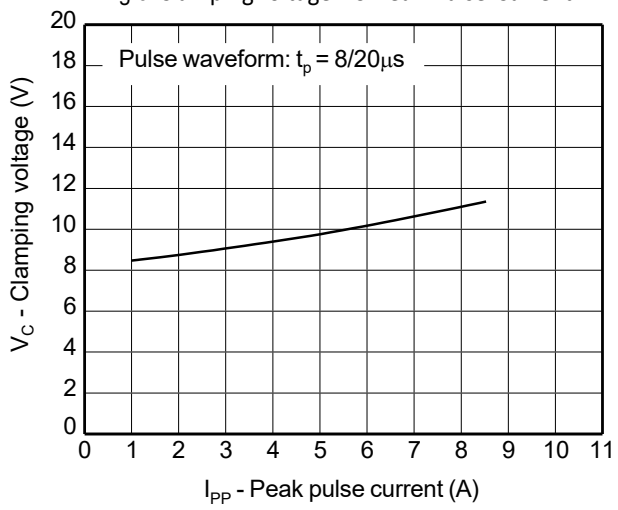
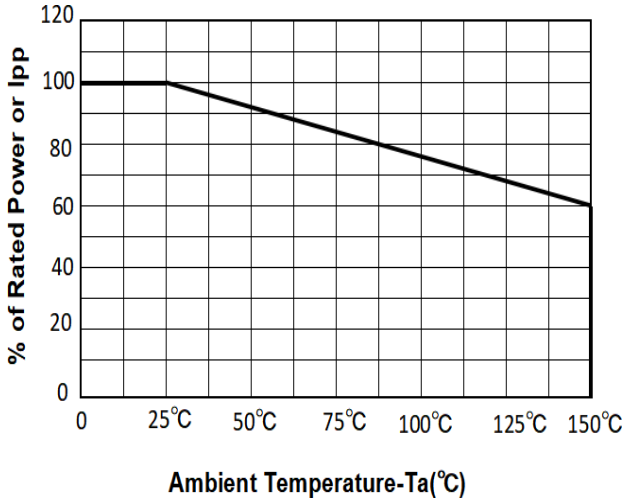


Fig.4 Power Derating



The curve above is for reference only.