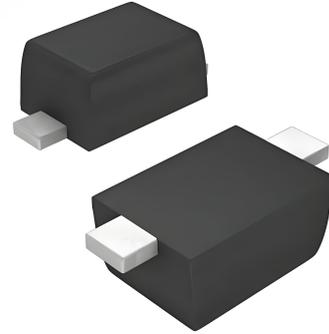


Features

- 100W ($t_p=8/20\mu s$) Peak Pulse Power
- Bi-directional configurations
- Low clamping voltage
- Low leakage current
- Moisture sensitivity level: Level 3
- Solid-state silicon avalanche technology
- Meet IEC61000-4-2
Contact discharge $\pm 30kV$
Air discharge $\pm 30kV$



Applications

- Communication System
- Portable Instrumentation
- Audio and Video Equipment
- Computers and Peripherals
- USB 1.1, USB 1.0 Ports

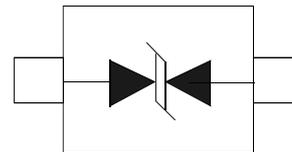
Mechanical Data

- SOD-523 package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel(7 inch)

Agency Approvals

Icon	Description
RoHS	Compliance with (EU)2015/863
HF	Compliance with IEC61249-2-21:2003
	Mean lead free

Schematic & PIN Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power($t_p=8/20\mu s$)	P_{PK}	100	W
Peak Pulse Current($t_p=8/20\mu s$)	I_{PP}	7	A
Lead Soldering Temperature	T_L	260(10seconds)	°C
Storage Temperature	T_{STG}	-55 to +150	°C
Operating Temperature Range	T_{Op}	-55 to +150	°C

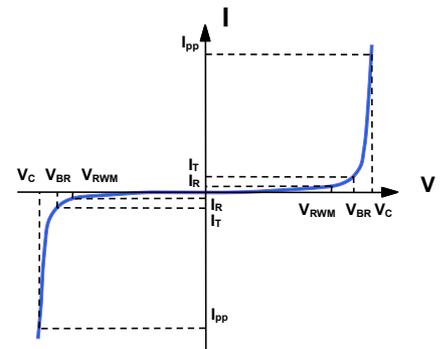
Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1mA$	3.6		6.3	V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V$			1	μA
Clamping Voltage	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$			9	V
Clamping Voltage	V_C	$I_{PP} = 7A, t_p = 8/20\mu s$		8	15	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		10	25	pF

I-V Curve Characteristics

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}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current

Note.: 8/20 μs pulse waveform.



Characteristics Curves(TA=25°C unless otherwise Specified)

Fig 1. 8/20µs Pulse Waveform

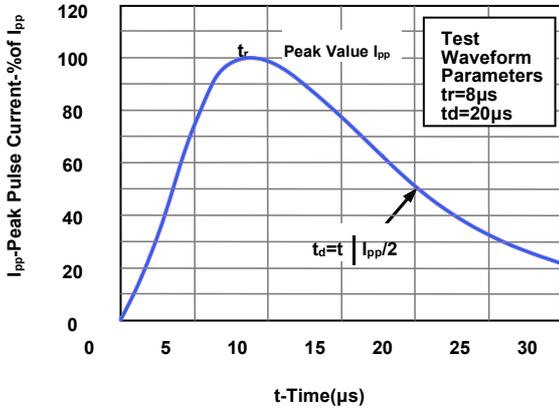


Fig 2. ESD Pulse Waveform (according to IEC61000-4-2)

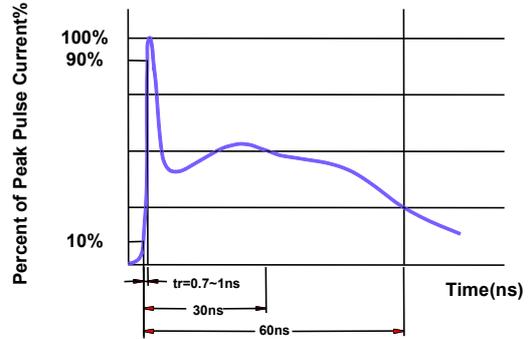


Fig 3. Power Derating Curve

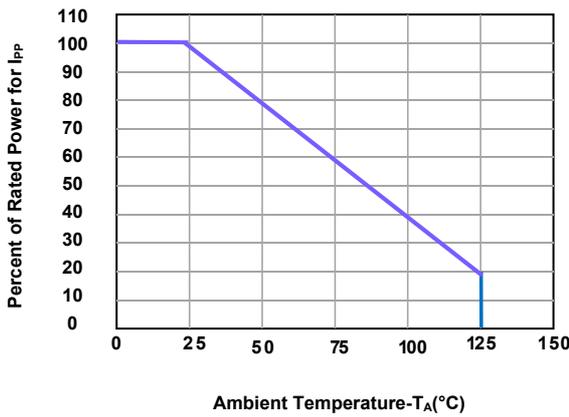


Figure 4. Clamping Voltage vs. Ipp

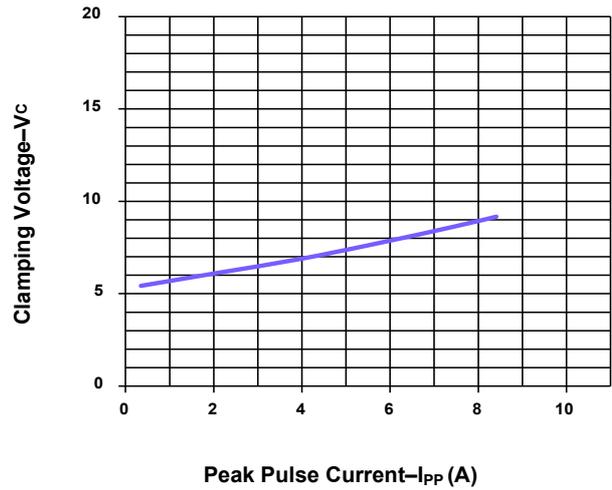


Fig 5. Peak Pulse Power vs. Pulse Time

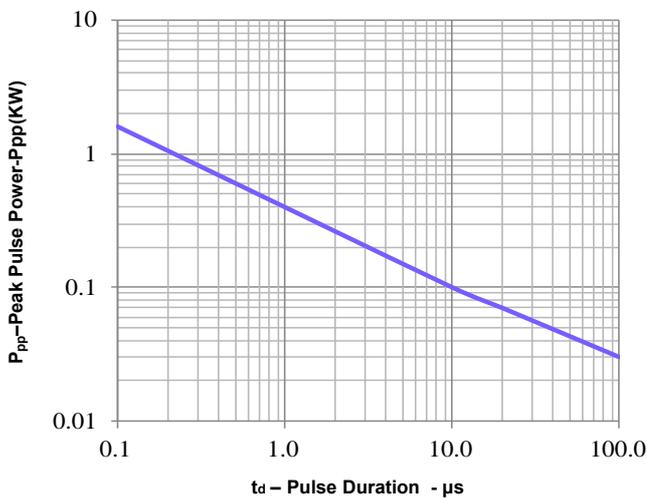
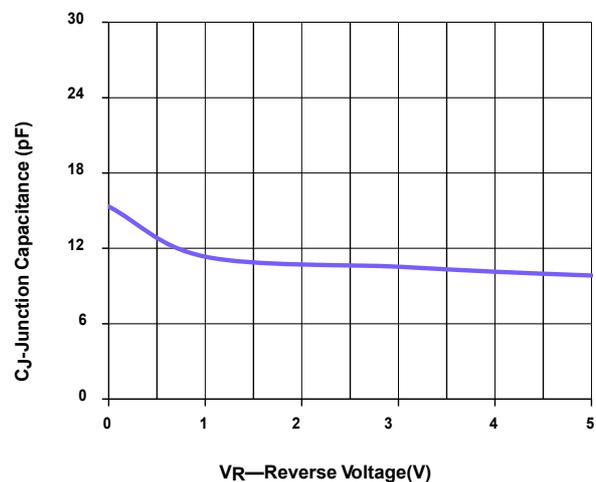
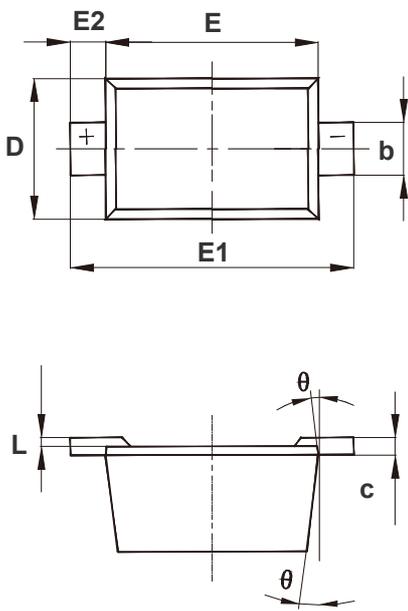


Figure 6. Junction Capacitance vs. Reverse Voltage



SOD-523 Package Outline



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.51	0.77	0.02	0.031
A1	0.50	0.70	0.020	0.028
b	0.25	0.35	0.01	0.014
c	0.08	0.15	0.003	0.006
D	0.75	0.85	0.03	0.033
E	1.1	1.3	0.043	0.051
E1	1.5	1.7	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.01	0.07	0.001	0.003
θ	7° REF		7° REF	

Marking Information



Packaging Information

	Reel	Inner Box	Carton
Size	φ178mm(7 inch)	215×205×205mm	435×435×230mm
Quantity	MPQ/MOQ: 1 reel=3000pcs	1 Inner box=10 reels=30,000pcs	1Carton=4 Inner boxes=120,000pcs
Photos			

- Notice: 1、 Each reel is placed in an aluminum foil bag and vacuum-packed separately.
2、 Above packaging photos make from 3D software for reference only, please refer to actual product as the standard.