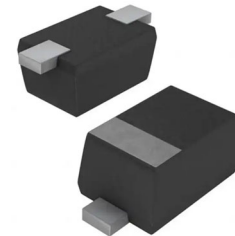


Features

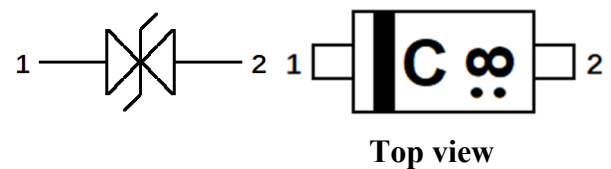
- 8 inch advanced semiconductor technology
- Response time is typically < 1 ns
- Ultra low leakage: nA level
- Low clamping voltage
- Molding compound flammability rating: UL 94V-0
- Lead finish: lead free
- SOD-923 package

SOD-923

RoHS
COMPLIANT



Equivalent circuit



Applications

- ESD and surge protection of power lines
- ESD and surge protection of signal lines (main application)
- Other abnormal interference protection

Certificates

- RoHS compliant
- REACH & SVHC compliant
- Halogen compliant

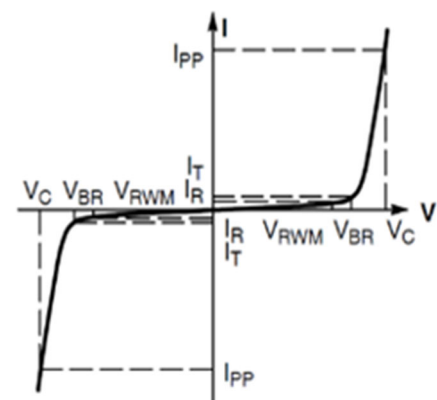
Packaging information

- Reel size: 7 inch
- Quantity of per reel: 8000 pcs
- Quantity of per box: 10 reels
- Quantity of per carton: 6 boxes

Electronics parameter

Symbol	Parameter
V_{RWM}	Peak reverse working voltage
I_R	Reverse leakage current @ V_{RWM}
V_{BR}	Breakdown voltage @ I_T
I_T	Test current
I_{PP}	Maximum reverse peak pulse current
V_C	Clamping voltage @ I_{PP}

V-I curve



Absolute maximum ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

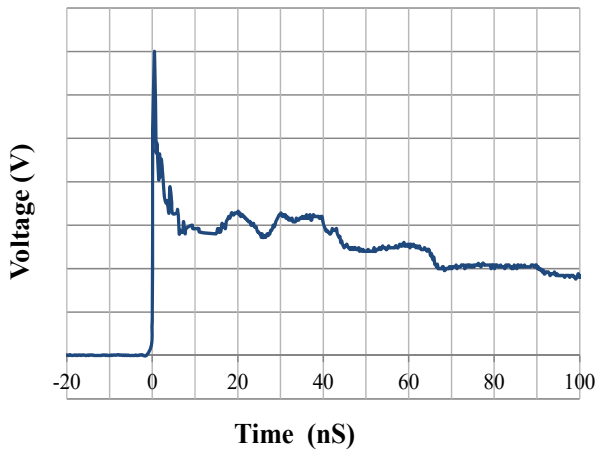
Parameter	Symbol	Value	Unit
IEC 61000-4-2 (ESD)(Air)	V_{ESD}	± 30	KV
IEC 61000-4-2 (ESD)(Contact)	V_{ESD}	± 30	KV
IEC 61000-4-4 (EFT)(5/50ns)	I_{PP}	40	A
Peak pulse current (8/20us) ^①	I_{PP}	8	A
Peak pulse power (8/20us)	P_{PP}	96	W
Operating temperature range	T_J	-40 to +125	$^{\circ}\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^{\circ}\text{C}$
①, 8/20us: IEC61000-4-5 surge compliant, same as the full datasheet			

Electrical characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

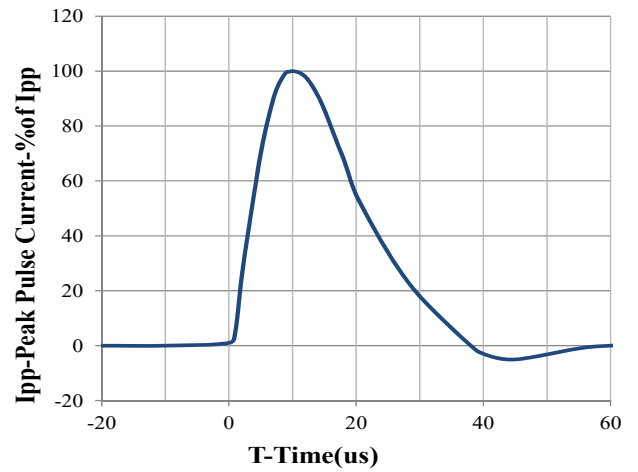
Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Reverse working voltage	V_{RWM}				5	V
Breakdown voltage	V_{BR}	$I_T = 1\text{mA}$	5.5		8.5	V
Reverse leakage current	I_R	$V_{\text{RWM}} = 5\text{V}$		<10	100	nA
Clamping voltage	V_C	$I_{\text{PP}} = 1\text{A}$ (8 / 20 μs)		7.1	9	V
Clamping voltage	V_C	$I_{\text{PP}} = 8\text{A}$ (8 / 20 μs)		8	12	V
Junction capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		16	25	pF

Typical performance characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

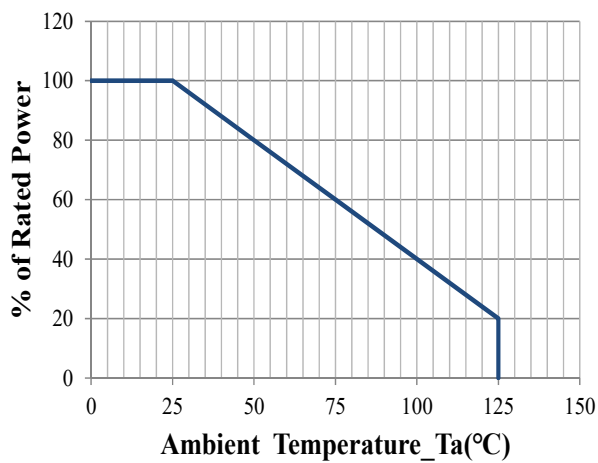
IEC61000-4-2 ESD waveform



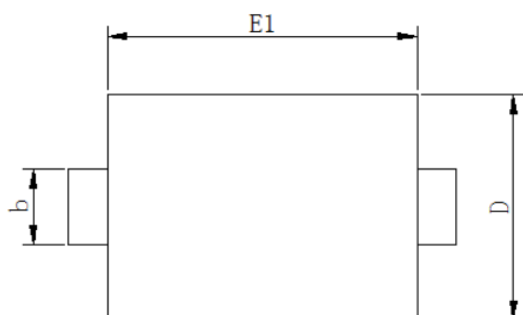
IEC61000-4-5 8/20us waveform



P_{PP} - T_a curve

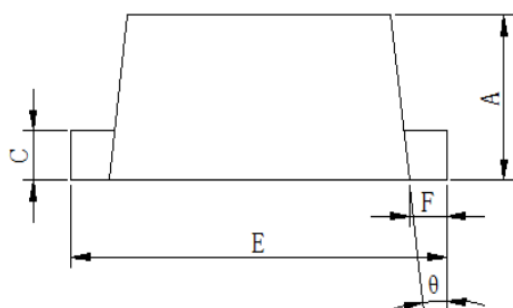


SOD-923 package outline drawing



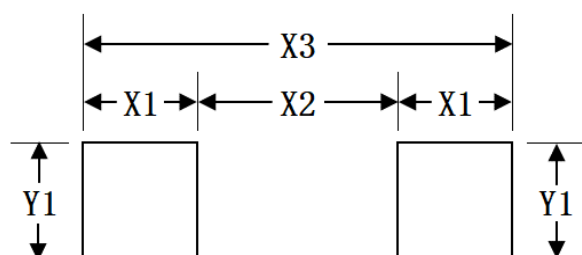
TOP VIEW

SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	Min	Typ	Max	Min	Typ	Max
A	0.36	0.40	0.44	0.0142	0.0157	0.0173
b	0.15	0.20	0.25	0.0059	0.0079	0.0098
c	0.07	0.12	0.17	0.0028	0.0047	0.0067
D	0.55	0.60	0.65	0.0217	0.0236	0.0256
E	0.95	1.00	1.10	0.0374	0.0394	0.0433
E1	0.75	0.80	0.85	0.0295	0.0315	0.0335
F	0.05	0.10	0.15	0.0020	0.0039	0.0059
θ	0	2°	5°	0	2°	5°



SIDE VIEW

Suggested land pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X1	0.40	0.016
X2	0.70	0.028
X3	1.50	0.059
Y1	0.40	0.016