



UNI-DIRECTIONAL ESD PROTECTION DIODES

FEATURES

- 350 Watts Peak pulse power per line ($t_p = 8/20\mu s$)
- Protects one uni-directional I/O line
- Low clamping voltage
- Working voltage : 15V
- Low leakage current
- RoHS compliant

MAIN APPLICATIONS

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation

PROTECTION SOLUTION TO MEET

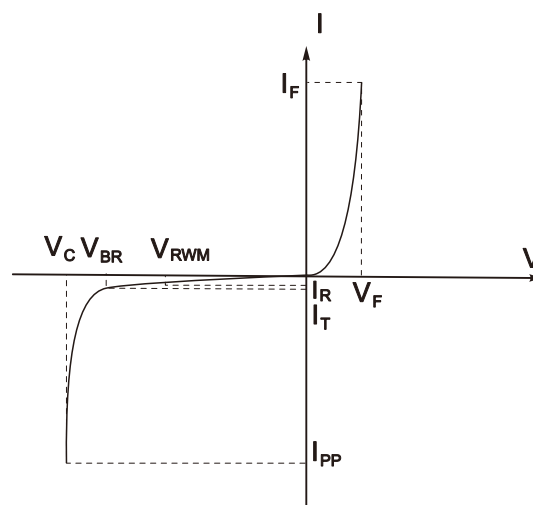
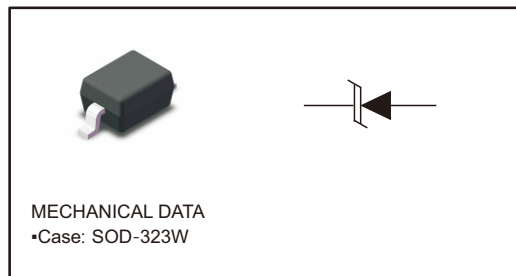
- IEC61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 25kV$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 13A (8/20 μs)

MECHANICAL CHARACTERISTICS

- SOD-323W package
- Quantity per reel : 3000pcs
- Lead finish : lead free
- Marking code : 15

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



V-I curve characteristics
Uni-directional



Absolute Ratings

(Tamb=25°C)

Parameter	Symbol	Value	Unit
Peak Pulse Power(tp=8/20us)	P _{PP}	350	W
Lead soldering temperature	T _L	260 (10 sec.)	°C
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2(Contact)	V _{ESD}	+/- 30 +/- 25	KV
Operating Junction Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C

Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V _{RWM}				15	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	16	17	19	V
Reverse Leakage Current	I _R	V _{RWM} =15V		0.1	0.2	uA
Clamping Voltage	V _C	I _{PP} =1A, t _p =8/20us		20	23	V
Clamping Voltage	V _C	I _{PP} =13A, t _p =8/20us		27	30	V
Junction Capacitance	C _j	V _R =0V, f=1MHz		75	90	pF



Fig.1 Pulse Waveform

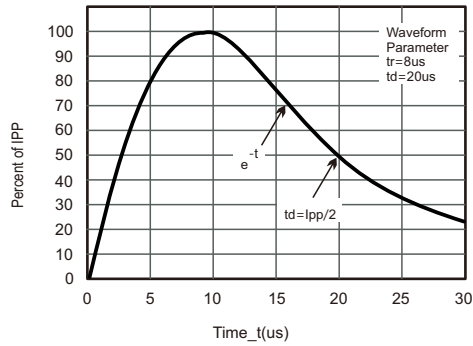


Fig.2 Power Derating Curve

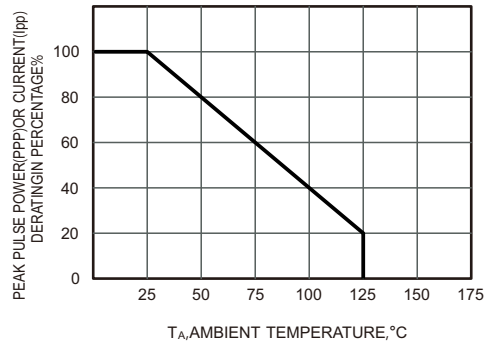
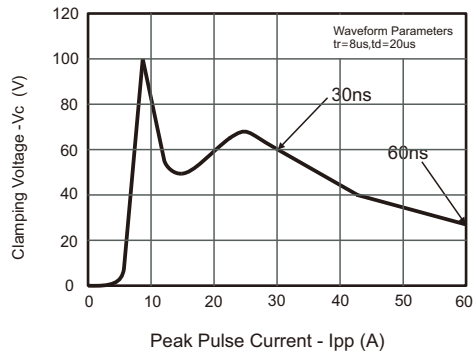


Fig.3 Clamping voltage vs Ipp

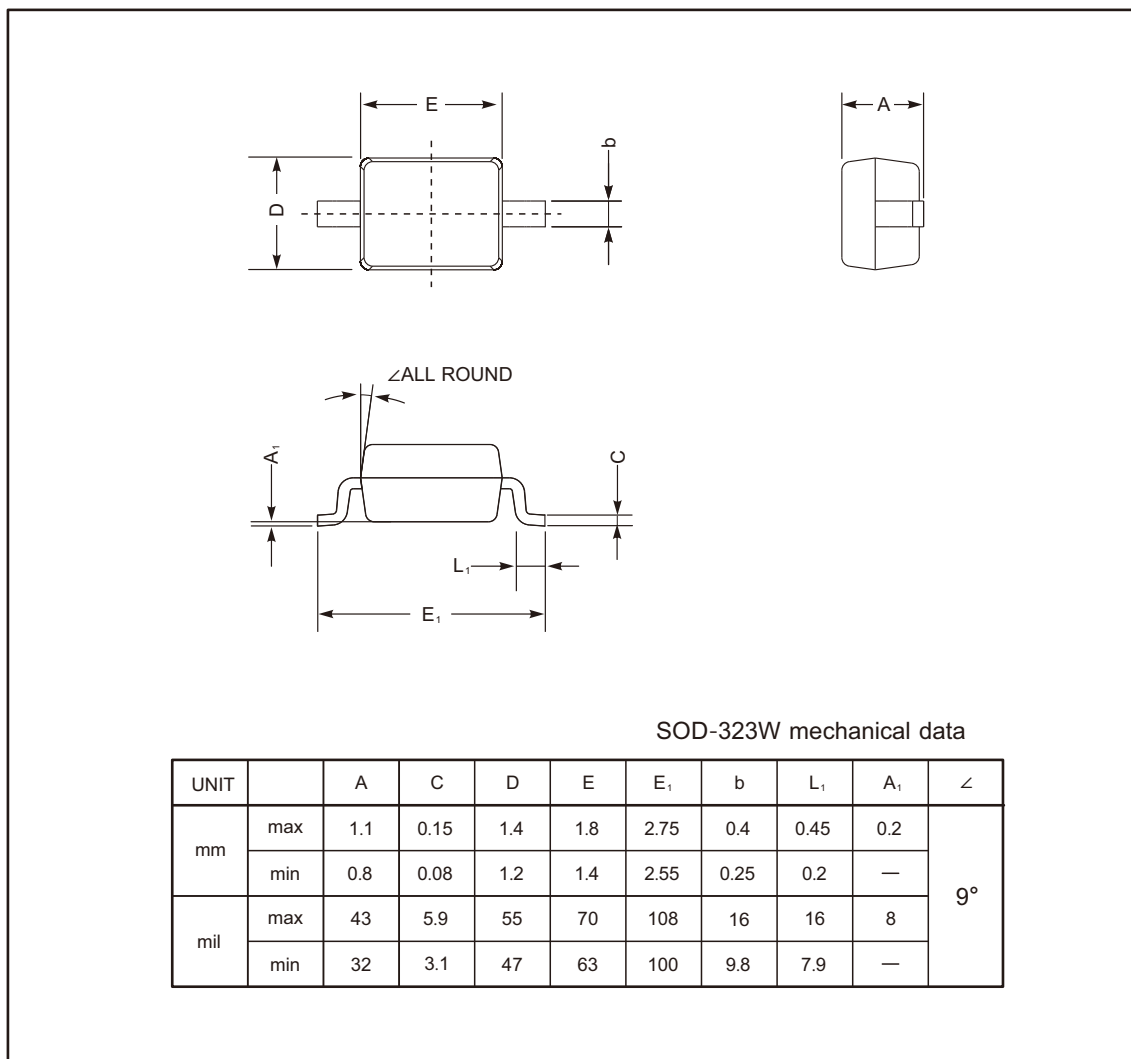




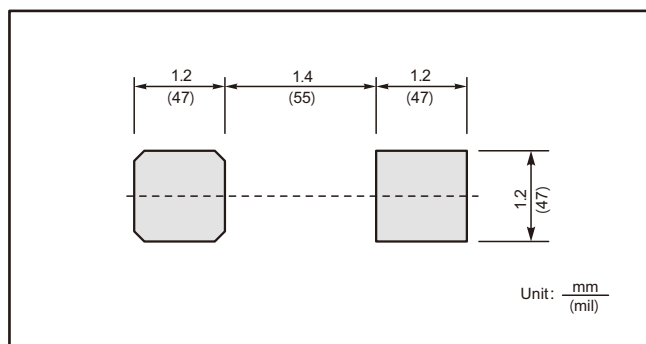
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323W



The recommended mounting pad size



Marking

Type number	Marking code
ESD15V0D3	15



文件履历表

序号	制/修订日期	生效日期	版次	修订内容	变更原因	制/修订人	备注
01	2022.4.20	2022.4.20	Rev 1.1	初版制定	/	陶倩	