



BIDIRECTIONAL ESD PROTECTION DIODES

Features

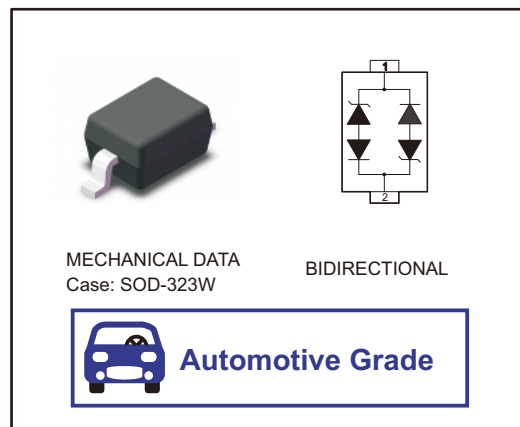
- 360 watts peak pulse power per line ($t_p=8/20\mu s$)
- Protects one bi-directional I/O line
- Low clamping voltage
- Working voltages: 5V
- Low leakage current
- RoHS compliant
- Qualified to AEC-Q101 Standards for High Reliability

Applications

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

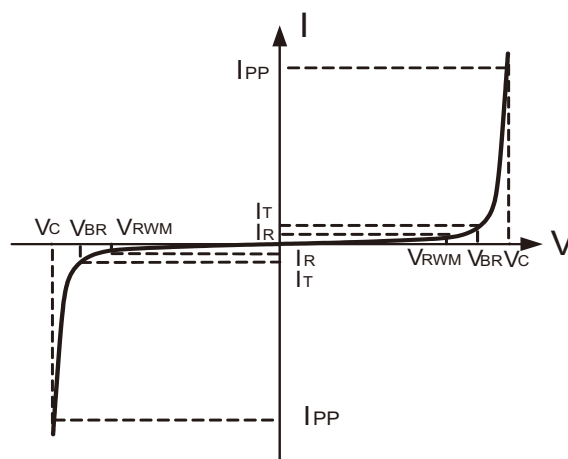
Mechanical Characteristics

- SOD-323W package
- Molding compound flammability rating: UL 94V-0
- Lead finish: lead free



Electrical Parameters (T=25 °C)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand- Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current





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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μS)	P _{pk}	360	W
Peak Pulse Current	I _{pp}	18	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±30 ±30	KV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse stand-off voltage	V _{RWM}				5.0	V
Breakdown Voltage	V _{BR}	I _T =1mA	6			V
Reverse Leakage Current	I _R	V _{RWM} =5V, Ta=25°C			1.0	uA
Clamping Voltage	V _C	I _{PP} =1A, t _p =8/20us I _{PP} =18A, t _p =8/20us			9.8 20	V
Junction Capacitance	C _j	V _R =0V, f=1HMz		0.6		pF

Fig.1 Pulse Waveform

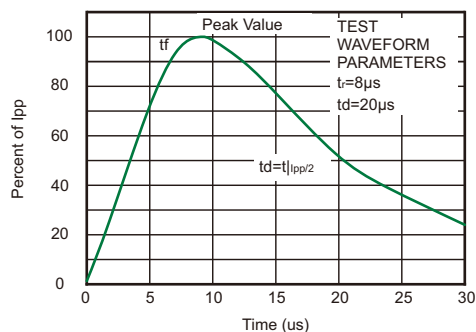
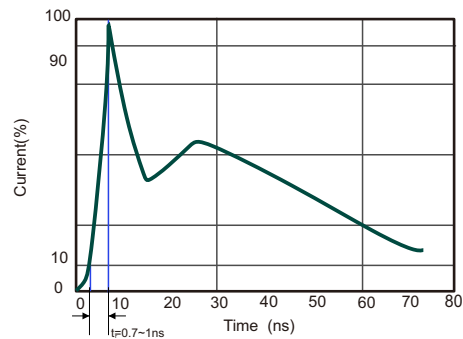


Fig.2 Contact discharge current waveform per IEC61000-4-2

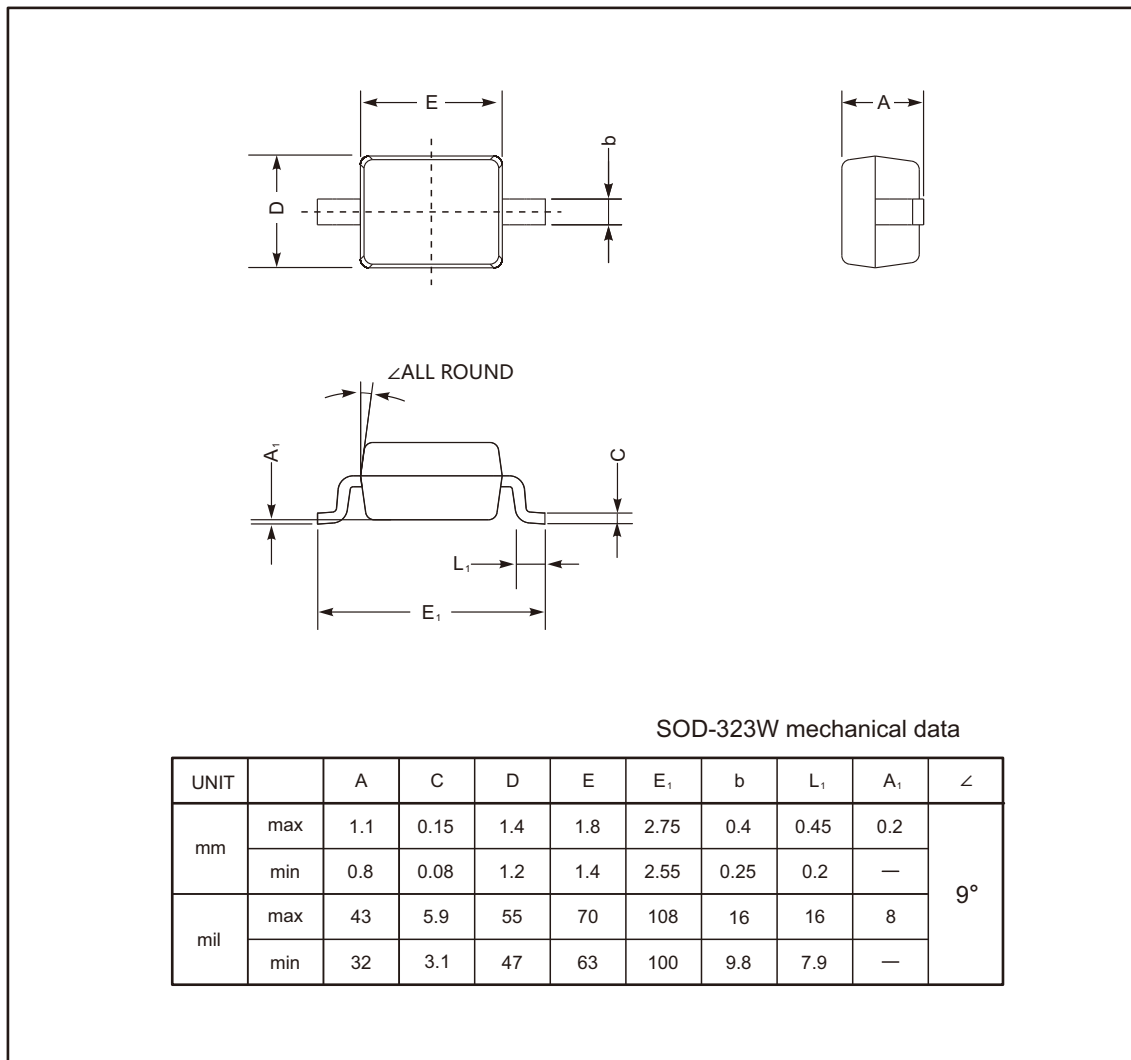




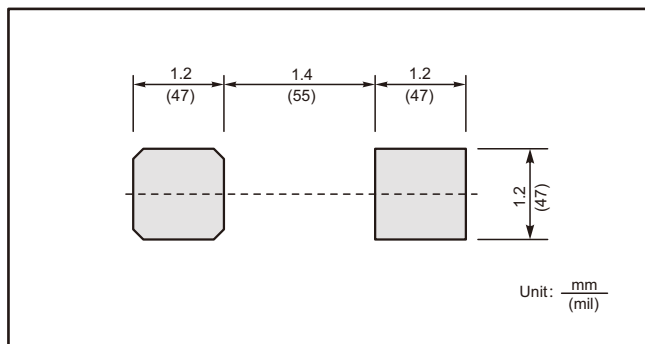
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323W



The recommended mounting pad size



Marking

Type number	Marking code
ESDBULC5V0D3A	AC



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