

E27SBWB1A

ESD Protection Diode

Features

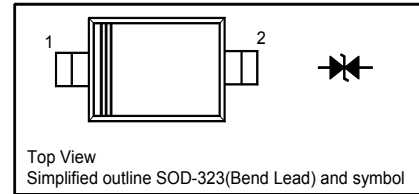
- Low leakage current

Applications

- CAN and FlexRay
- Local Interconnect Network (LIN) Bus Protection

PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



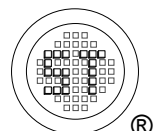
Absolute Maximum Ratings (at $T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20 μs)	P_{PK}	145	W
Peak Pulse Current (tp = 8/20 μs)	I_{PP}	3	A
IEC61000-4-2 (ESD) Air Contact	V_{ESD}	± 30 ± 30	KV
Operating Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	27	V
Reverse Breakdown Voltage at $I_R = 5 \text{ mA}$	$V_{(BR)R}$	28	-	38	V
Reverse Current at $V_{RWM} = 27 \text{ V}$	I_R	-	-	100	nA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, tp = 8/20 μs at $I_{PP} = 3 \text{ A}$, tp = 8/20 μs	V_C	-	-	43 48	V
ESD Clamping Voltage at $I_{TLP} = 4 \text{ A}$, tp = 0.2/100 ns at $I_{TLP} = 16 \text{ A}$, tp = 0.2/100 ns	V_{CL}	-	37.4 47.6	-	V
Junction Capacitance at $V_R = 0 \text{ V}$, f = 1 MHz	C_j	-	-	20	pF
Dynamic Resistance ¹⁾	R_{dyn}	-	0.85	-	Ω

¹⁾ Dynamic Resistance calculated from $I_{TLP} = 4 \text{ A}$ to $I_{TLP} = 16 \text{ A}$.



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Electrical Characteristic Curves

Fig 1. Pulse Waveform

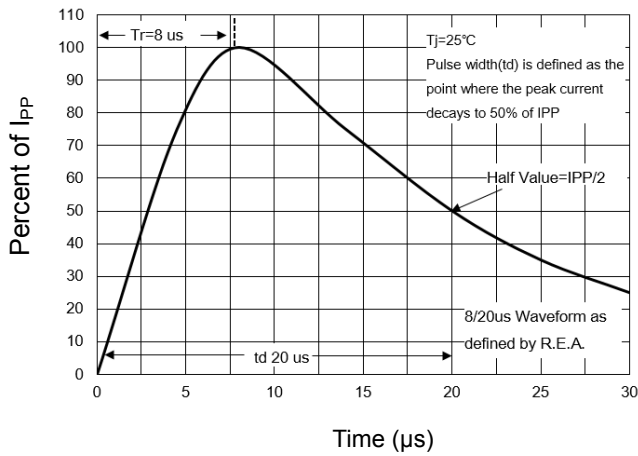


Fig 2. Power Derating Curve

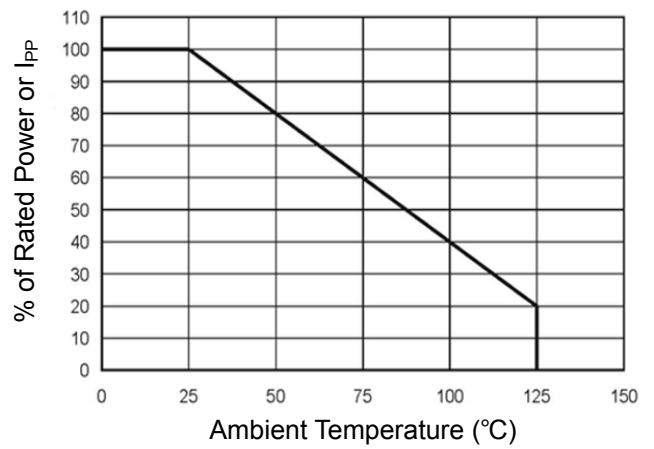


Fig 3. Clamping Voltage Curve

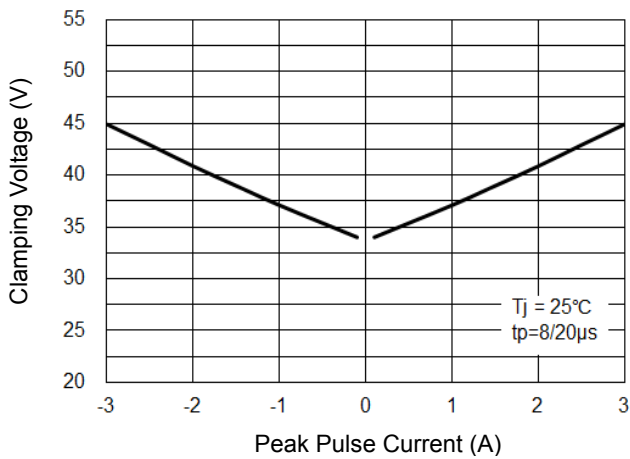


Fig 4. Junction Capacitance

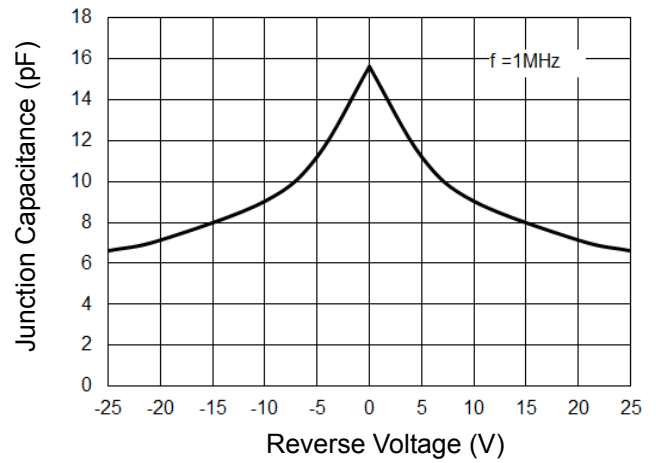
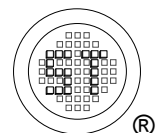
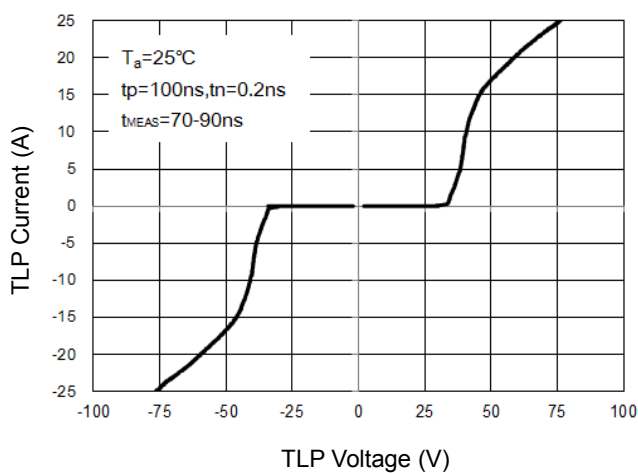


Fig. 5 TLP Curve

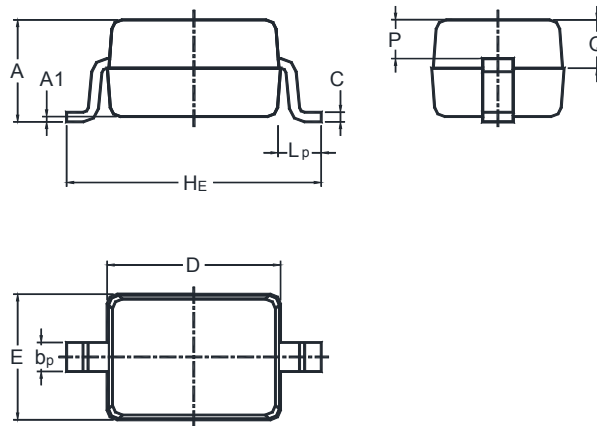


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PACKAGE OUTLINE

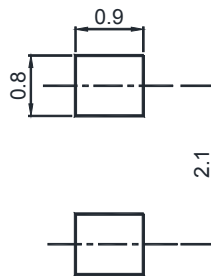
Plastic surface mounted package; 2 leads

SOD-323BL



UNIT	A	A ₁	b _p	C	D	E	H _E	L _p	Q	P
mm	1.1 0.8	0.1 0	0.4 0.25	0.18 0.09	1.8 1.6	1.35 1.15	2.8 2.3	0.5 0.1	0.5 0.3	0.4 0.3

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323BL	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" E0 " = Part No.

" III " = Marking line

Font type: Arial

