

Feature

- Ultra Small mold type. (SOD-323)
- Low I_R
- High reliability.

Applications

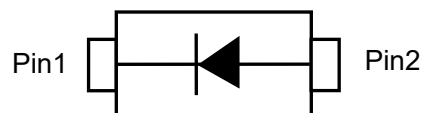
- Low current rectification

Construction

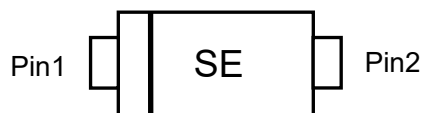
- Silicon epitaxial planar

Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260℃
- Pure tin plating: 7 ~ 17 μm
- Pin flatness: $\leq 3\text{mil}$



Circuit Diagram



Marking(Top View)

Electrical characteristics per line@25℃

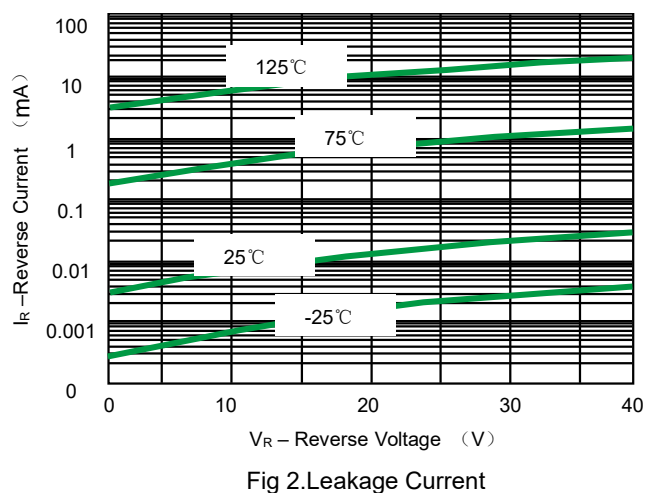
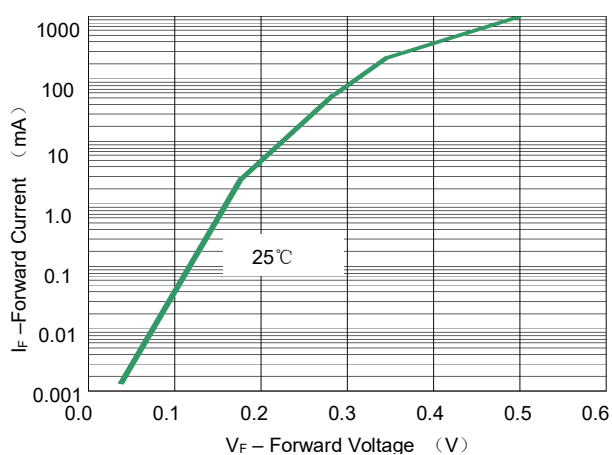
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	0.5	0.55	V	$I_F=1\text{A}$
Forward voltage	V_F	-	0.43	0.48	V	$I_F=0.5\text{A}$
Reverse current	I_R	-	-	0.1	mA	$V_R=40\text{V}$
Junction Capacitance	C_j	-	120	-	pF	$V_R=0\text{V}$ $f=1\text{MHz}$

Absolute maximum rating@25℃

Parameter	Symbol	limits	Unit
Reverse voltage(repetitive peak)	V_{RM}	45	V
Reverse voltage (DC)	V_R	40	V
Average rectified forward current	I_o	1	A

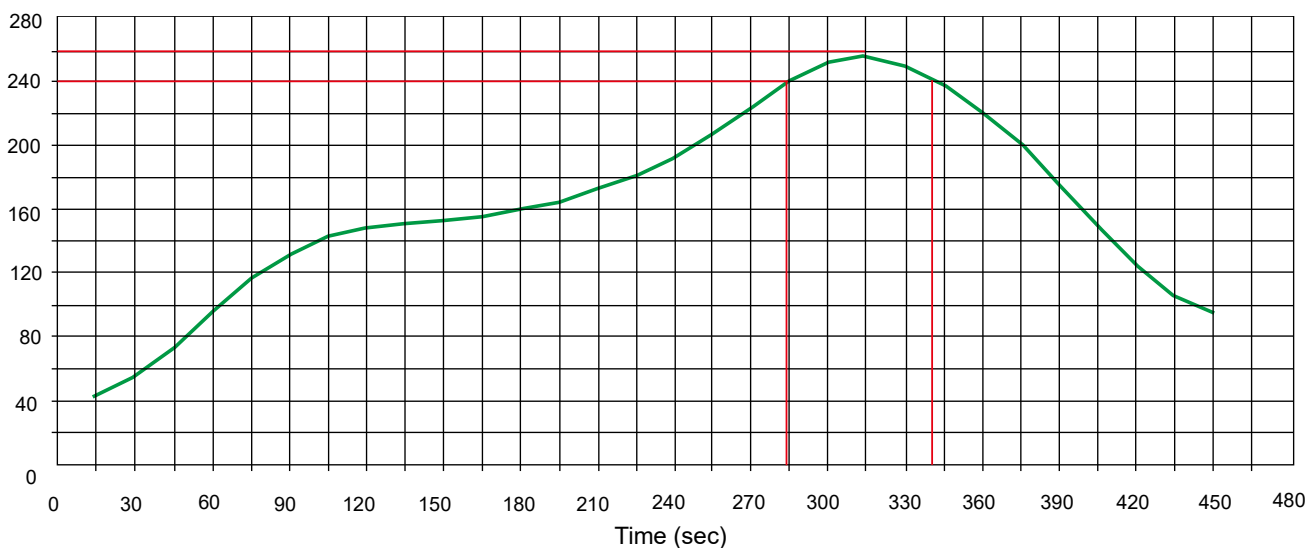
Parameter	Symbol	limits	Unit
Peak forward current(Pulse Width=1us, Single Pulse)	I_{PK}	25	A
Peak forward surge current(8.33ms 1/2sine waveform with single pulse)	I_{FSM}	8	A
Power Dissipation	PD	500	mW
Operating Junction temperature Range	T_j	-55 to 125	°C
Storage temperature	T_{stg}	-55 to 125	°C

Typical Characteristics

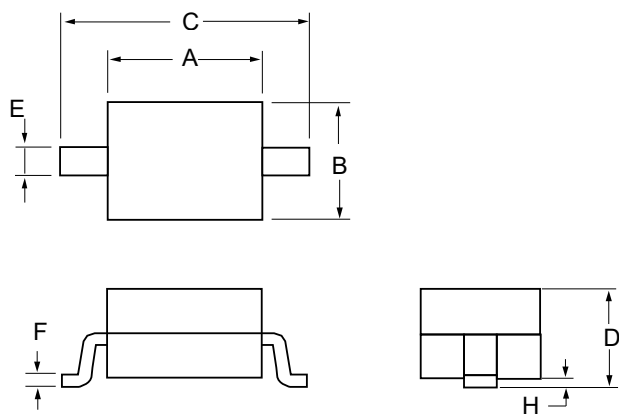


Solder Reflow Recommendation

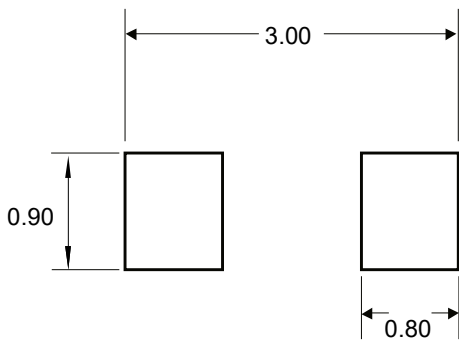
Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



Product dimension (SOD-323)



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.063	0.075	1.60	1.90
B	0.045	0.057	1.15	1.45
C	0.090	0.110	2.30	2.80
D	0.031	0.043	0.80	1.10
E	0.010	0.016	0.25	0.40
F	0.004	0.007	0.09	0.18
H	0.000	0.004	0.00	0.10



Unit:mm

Suggested PCB Layout

Ordering information

Device	Package	Reel	Shipping
PSBD3D40V1H	SOD-323(Pb-free)	7"	3000 / Tape & Reel

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