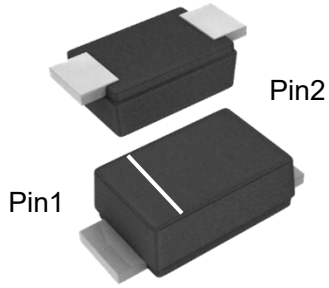
Prisemi®

PSBD1DF60V2L

Schottky Barrier diode

Feature

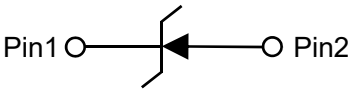
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



SOD-123FL

Mechanical Characteristics

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:15mg/0.00048oz



Circuit Diagram

Absolute maximum rating and Electrical characteristics @25℃

Rating		Symbol	Value	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	60	V
Maximum RMS voltage		V_{RMS}	42	V
Maximum DC Blocking Voltage		V_{DC}	60	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	2.0	A
Peak Forward Surge Current, t Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	at t=8.3ms	I_{FSM}	50	A
	at t=1.0ms		100	
I^2t Rating for fusing (3ms≤t≤8.3ms)		I^2t	10.3	A^2S
Max Instantaneous Forward Voltage at 2 A		V_F	0.5	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	T_a=25℃	I_R	0.3	A
	T_a=100℃		5.0	
Typical Junction Capacitance[1]		C_J	100	pF
Typical Thermal Resistance[2]		$R_{\theta JA}$	105	℃/W
		$R_{\theta JC}$	25	
		$R_{\theta JL}$	32	
Operating Junction Temperature		T_J	-55 ~ +125	℃
Storage Temperature		T_{stg}	-55 ~ +150	℃

Note:
1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
2. P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

Typical Characteristics

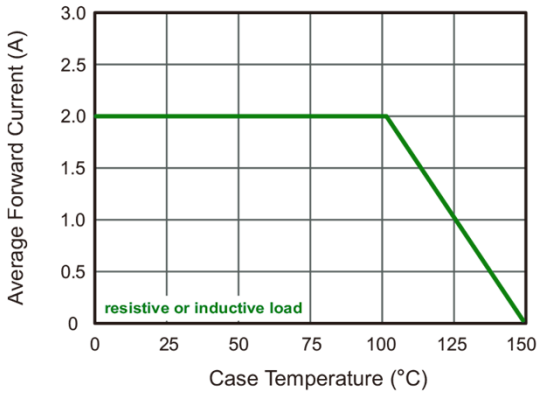


Fig.1 Forward Current Derating Curve

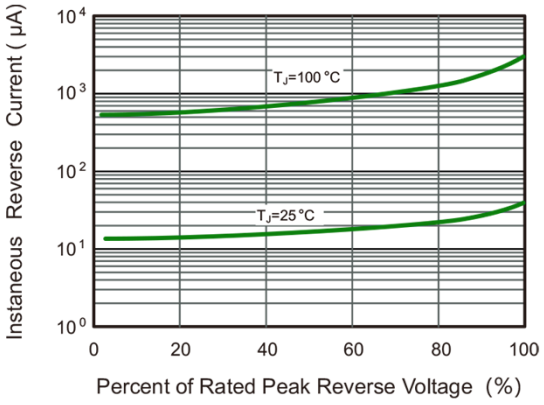


Fig.2 Typical Reverse Characteristics

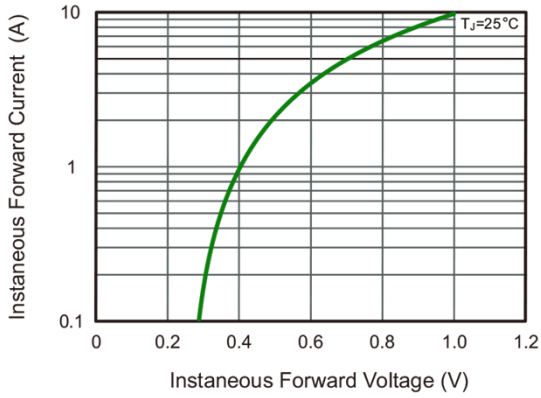


Fig.3 Typical Forward Characteristic

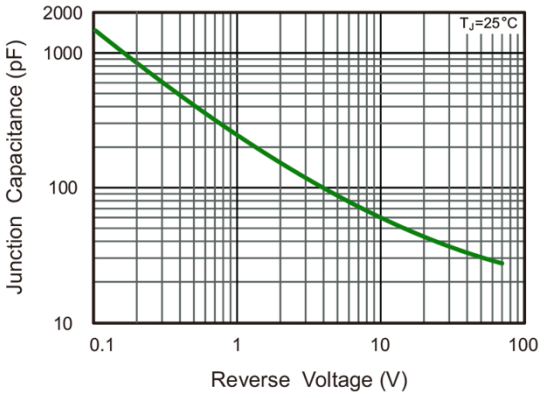


Fig.4 Typical Junction Capacitance

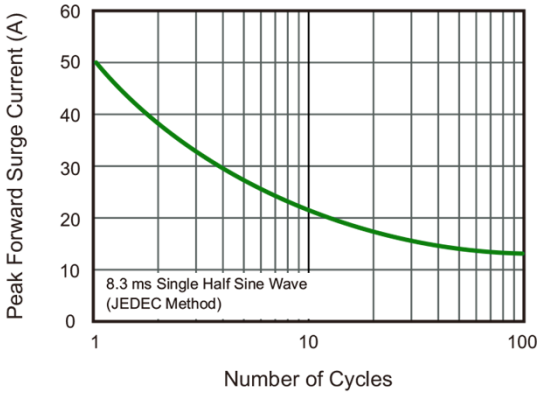
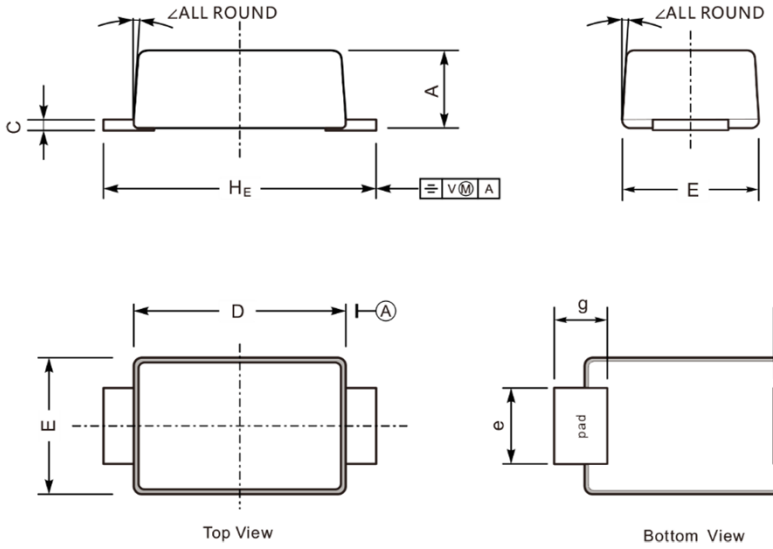
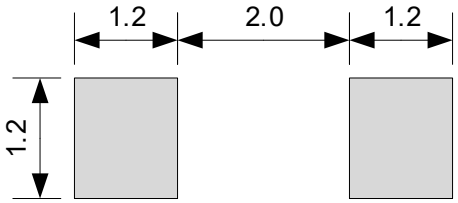


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

Product dimension (SOD-123FL)





Unit: mm

Suggested PCB Layout

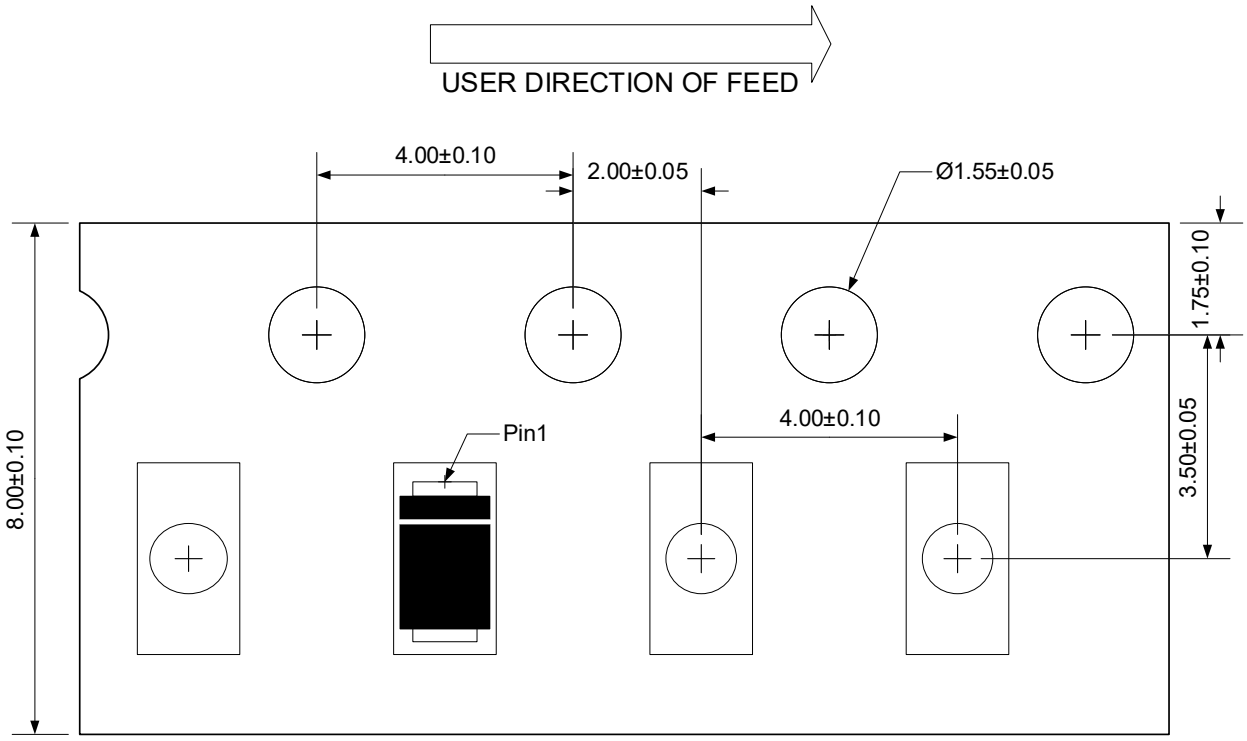
Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.90	1.10	0.035	0.043
C	0.12	0.20	0.005	0.008
D	2.60	2.90	0.102	0.114
E	1.70	1.90	0.067	0.075
e	0.80	1.10	0.031	0.043
g	0.70	0.90	0.028	0.035
H_E	3.50	3.80	0.138	0.150
∠	7°			

Ordering information

Device	Package	Reel	Shipping
PSBD1DF60V2L	SOD-123FL	7"	3000 / Tape & Reel

Marking information

Load with information



Unit:mm

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