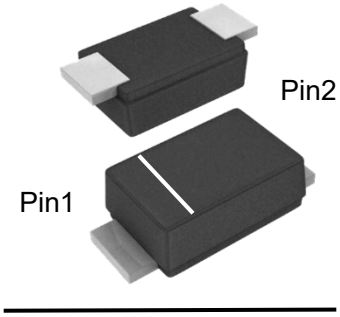
Prisemi®

PSBD1DFxxV1HX

Schottky Barrier diode

Feature

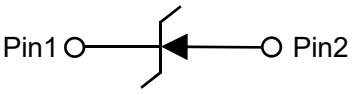
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0.
- For surface mounted applications.
- Built-in strain relief, ideal for automated placement.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed 250 ℃/10 seconds at terminals.



SOD-123FL

Mechanical Characteristics

- Case : Molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position : Any
- Weight : 0.0007 ounce, 0.02 grams



Circuit Diagram

Absolute maximum rating@25℃

Parameter		Symbol	PSBD1DF20V1HX	PSBD1DF40V1HX	PSBD1DF60V1HX	PSBD1DF80V1HX	PSBD1DF100V1HX	PSBD1DF150V1HX	PSBD1DF200V1HX	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS Voltage		V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage		V_{DC}	20	40	60	80	100	150	200	V
Forward Current @ T_L = 100℃		$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load		I_{FSM}	30							A
Max Instantaneous Forward Voltage at 1 A		V_F	0.55		0.7	0.85		0.95		V
Reverse Current	T_a = 25℃	I_R	0.5			0.05				mA
	T_a = 125℃		50			10				
Typical Thermal Resistance		$R_{\theta JA}$	85							℃/W
Operating Junction Temperature Range		T_J	-55 ~ +125			-55 ~ +150				℃
Storage Temperature Range		T_{STG}	-55 ~ +150							℃

Typical Characteristics

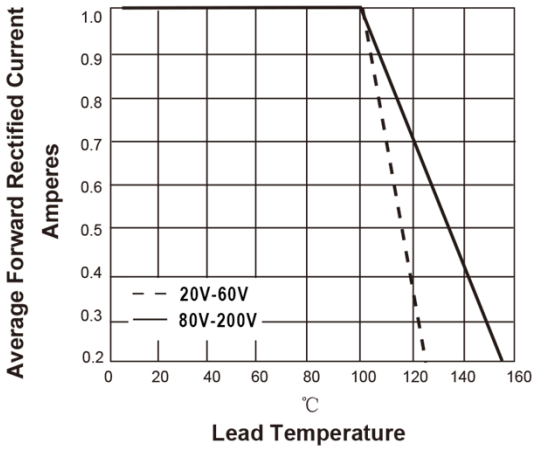


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

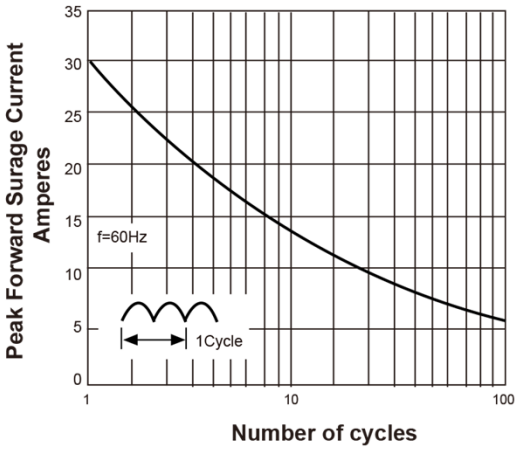


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

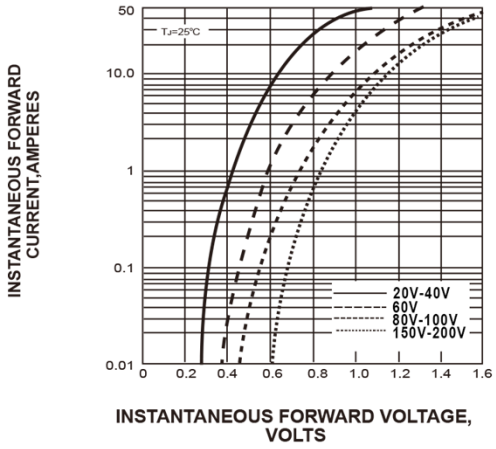


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

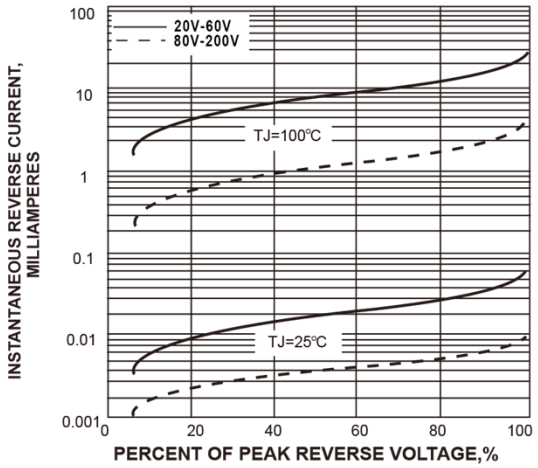
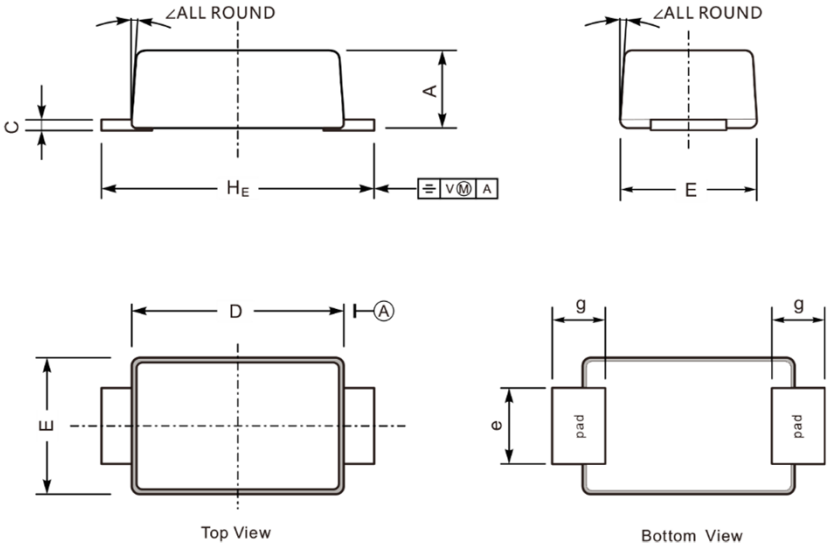
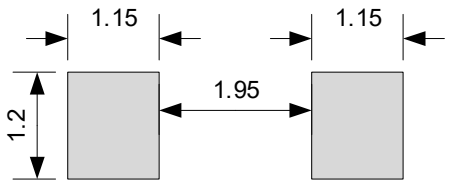


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

Product dimension (SOD-123FL)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.90	1.30	0.035	0.051
C	0.10	0.30	0.004	0.012
D	2.60	3.00	0.102	0.118
E	1.60	2.00	0.063	0.079
e	0.80	1.10	0.031	0.043
g	0.70	0.90	0.028	0.035
H_E	3.60	4.00	0.142	0.157
∠	7°			



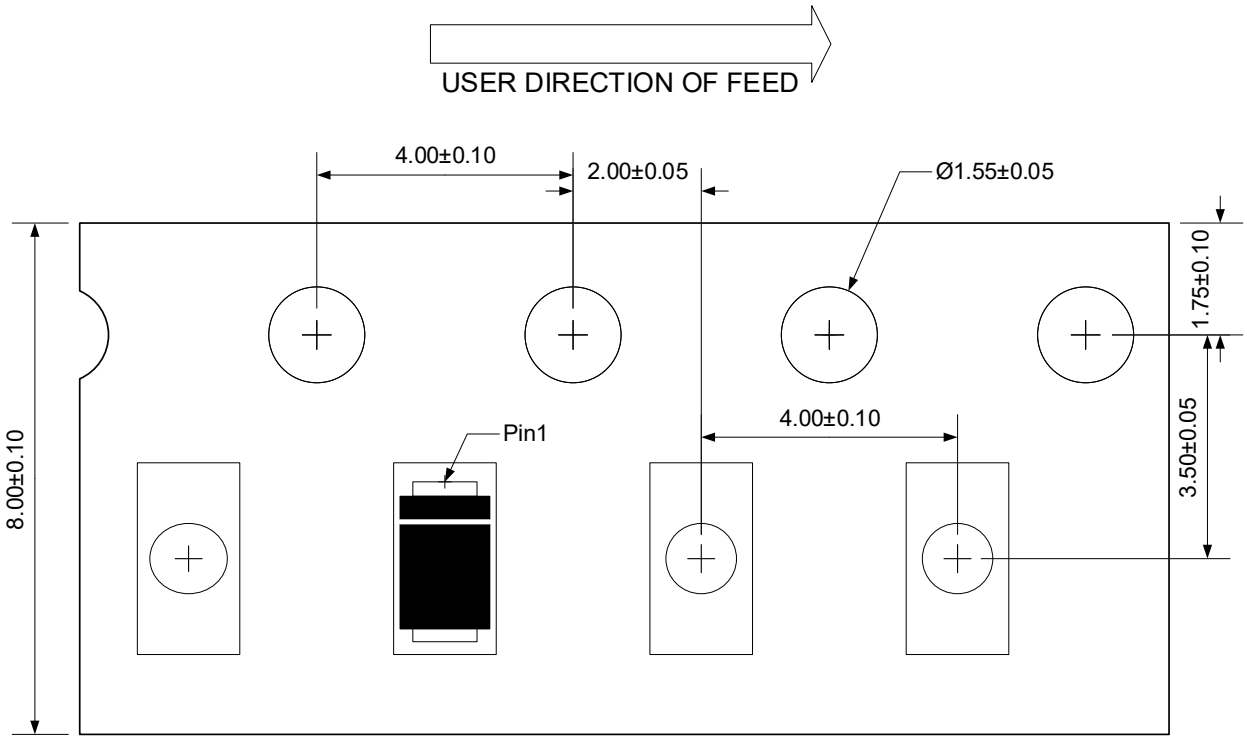
Unit: mm

Suggested PCB Layout

Ordering information

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

Load with information



Unit:mm

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