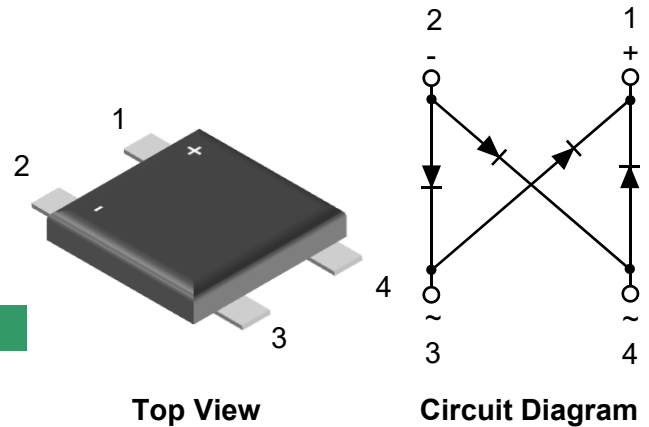# Prisemi®

PFMSB30B THRU PFMSB30M

3A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

Feature

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 3.0 A
- Fast reverse recovery time
- Designed for Surface Mount Application

Mechanical Characteristics

- Package: UMSB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.234g / 0.00825oz

Top View

Circuit Diagram

Absolute maximum rating@25℃

Parameter	Symbol	PFMS B30B	PFMS B30D	PFMS B30G	PFMS B30J	PFMS B30K	PFMS B30M	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current at T_c = 115 °C	I_O	3.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	90						A
Maximum Forward Voltage at 3.0 A	V_F	1.3						V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a = 125 °C	I_R	5.0 200						µA
Typical Junction Capacitance[1]	C_J	40						pF
Typical Thermal Resistance[2]	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	65 15 30						℃/W
Maximum Reverse Recovery Time [3]	t_{rr}	150			250	500		ns
Operating and Storage Temperature Range	T_J, T_{STG}	-55~+150						℃

Notes：
1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
2) Mounted on glass epoxy PC board with 4×1.5"×1.5"(3.81×3.81 cm)copper pad.
3) Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A .
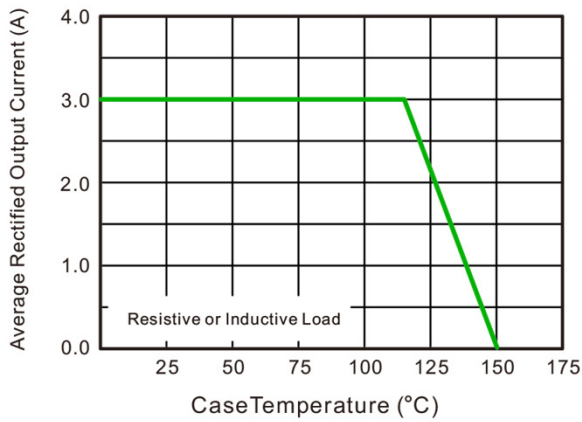
BRIDGE RECTIFIER

Typical Characteristics
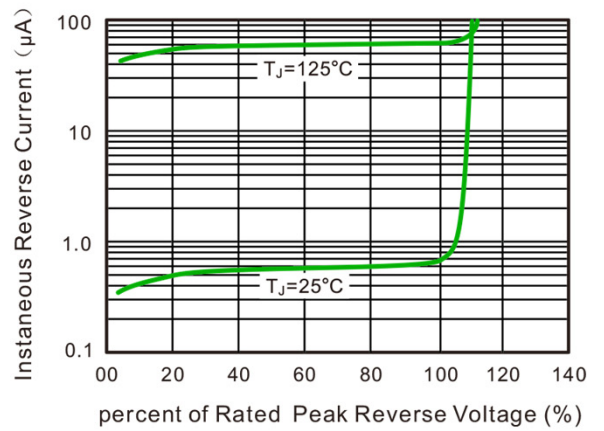
Fig.1 Average Rectified Output Current
Derating Curve

Fig.2 Typical Reverse Characteristics
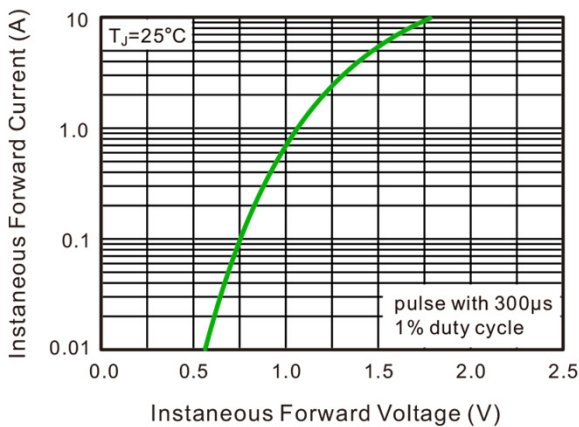
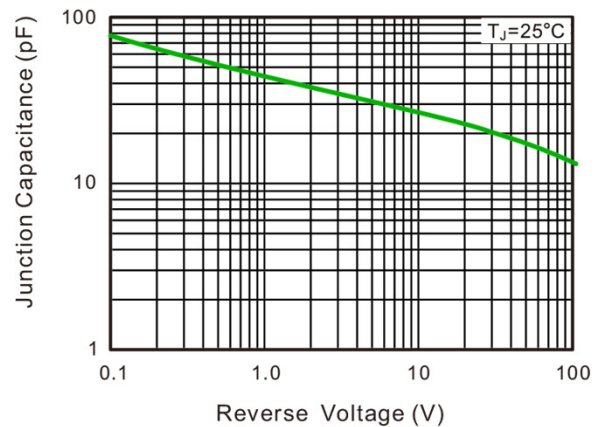Fig.3 Typical Instaneous Forward
Characteristics

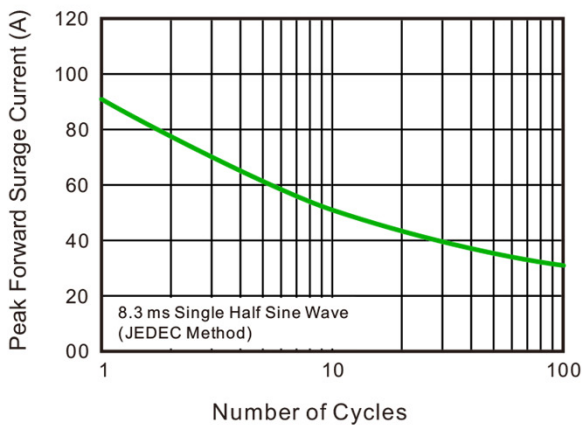Fig.4 Typical Junction Capacitance
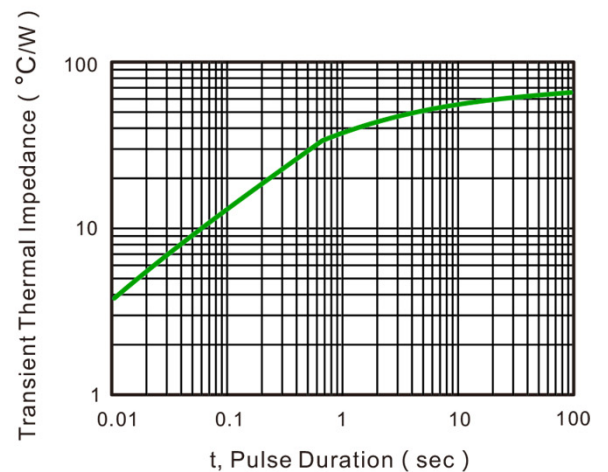
Fig.5 Maximum Non-Repetitive Peak
Forward Surage Current

Fig.6- Typical Transient Thermal Impedance

Product dimension (UMSB)
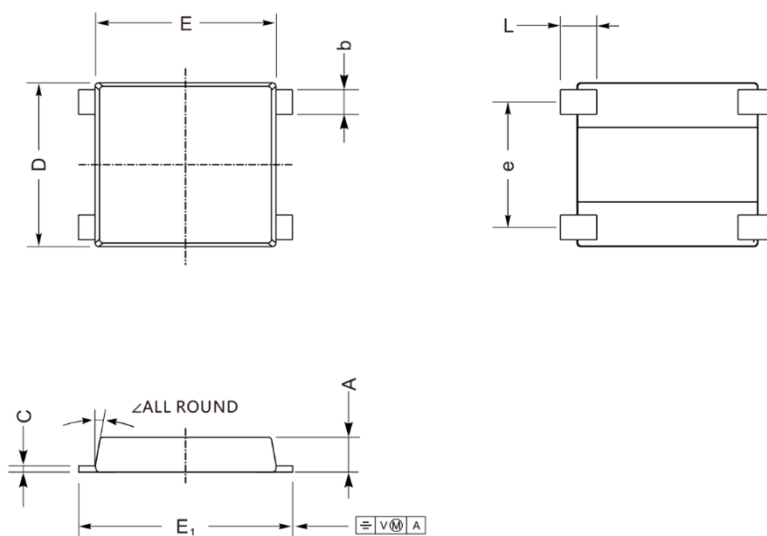
Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	1.30	1.50	0.051	0.059
C	0.17	0.29	0.007	0.012
D	6.20	7.00	0.244	0.276
E	7.10	7.60	0.280	0.299
E_1	8.40	8.90	0.331	0.350
L	1.00	1.60	0.032	0.055
e	4.90	5.30	0.193	0.209
b	0.95	1.15	0.037	0.045
∠	10°		10°	
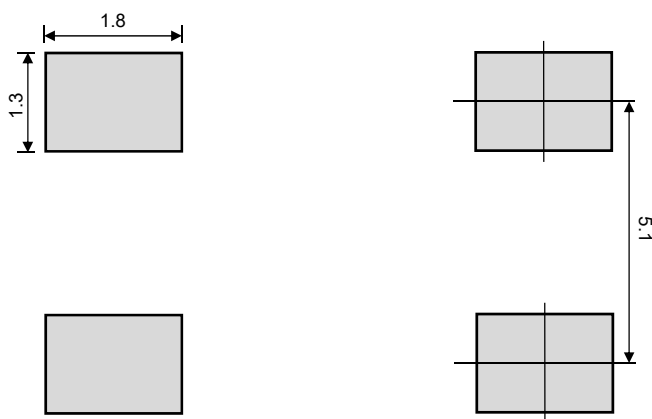
Suggested PCB Layout

Unit:mm

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