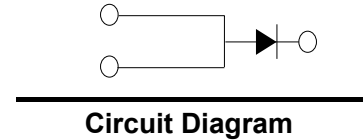


Feature

- High Forward Surge Capability
- Ultra Low Forward Voltage
- Excellent High Temperature Stability


Applications

- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Construction

- Silicon epitaxial planar

Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260°C
- Pure tin plating: 7 ~ 17 um

Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Forward voltage	V_F	$I_F = 10A$	-	-	0.55	V
Reverse Current	I_R	$V_R = 60V, T_A = 25^\circ C$	-	-	0.5	mA

Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Reverse voltage (DC)	V_{RM}	60	V
Average rectified forward current	I_F	10	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	175	A
Thermal resistance from junction to Mount	$R_{\theta JM}$	4.0	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	°C

Typical Characteristics

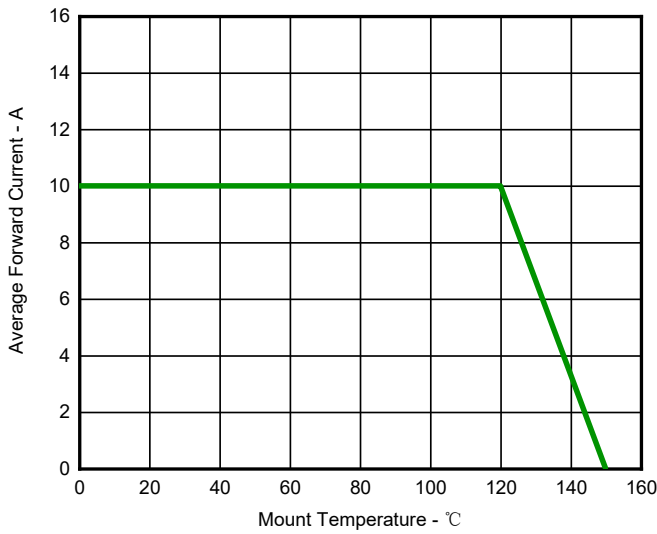


Fig.1 Forward Current Derating Curve

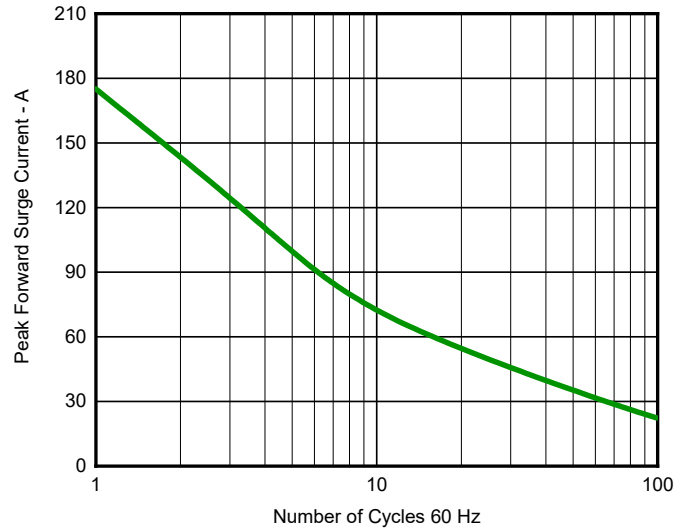


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

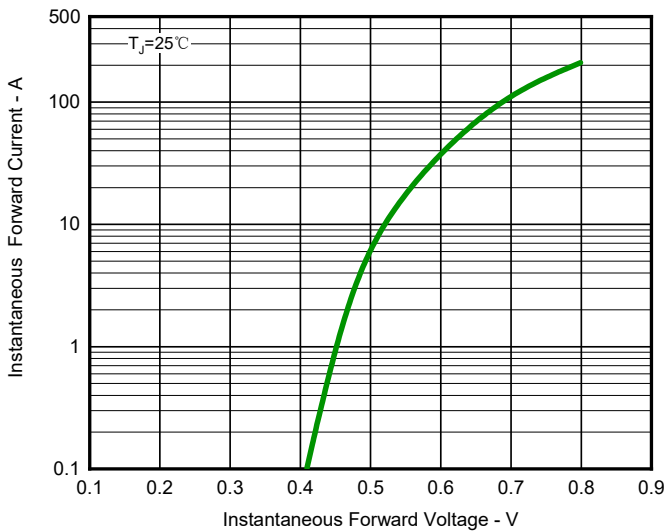


Fig.3 Typical Forward Voltage Characteristics

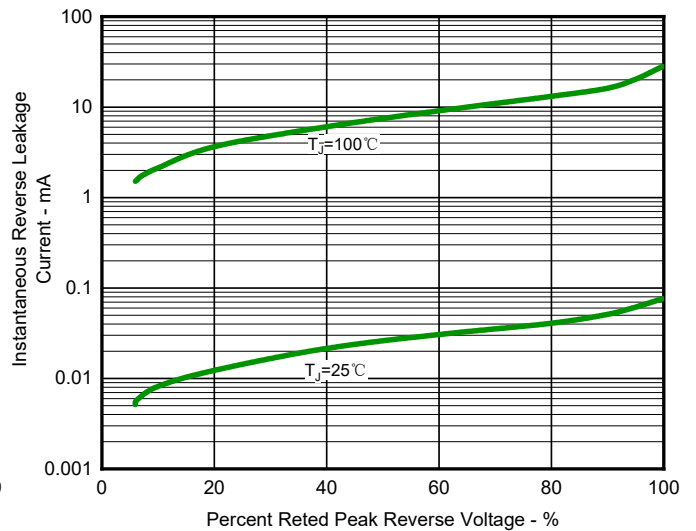
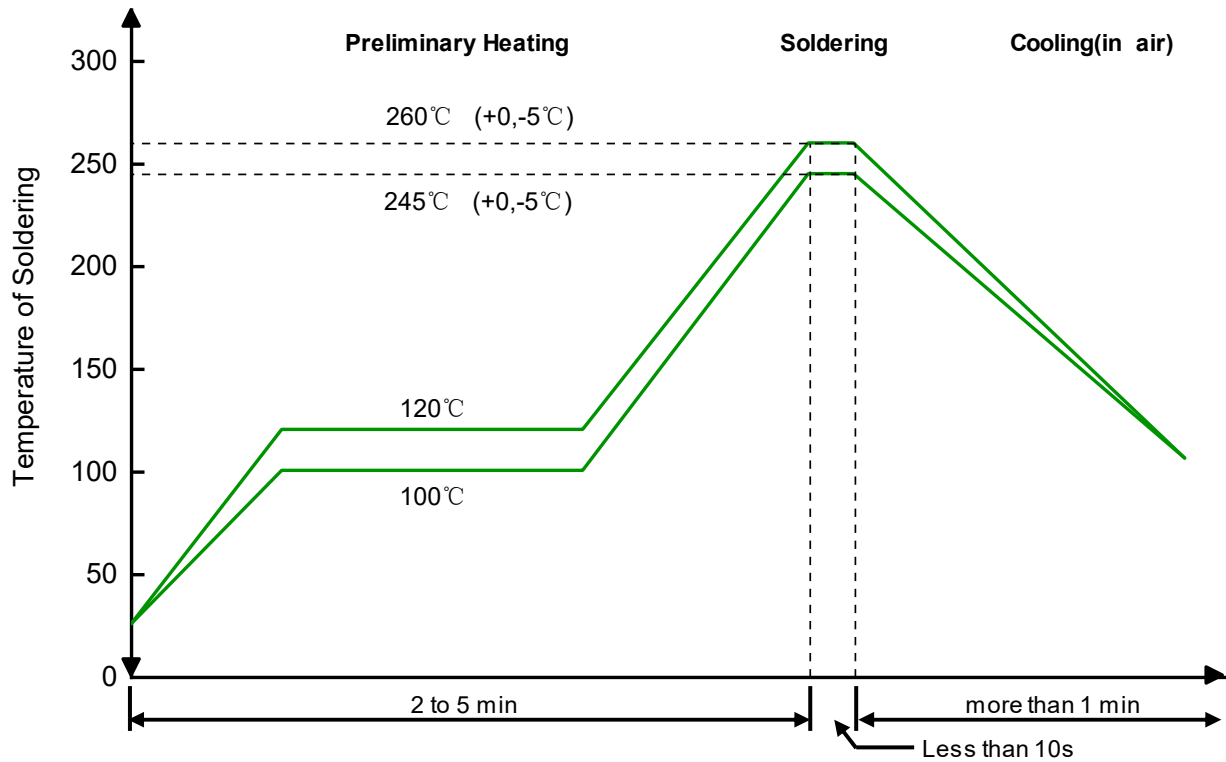


Fig.4 Typical Reverse Leakage Characteristics

Solder Reflow Recommendation

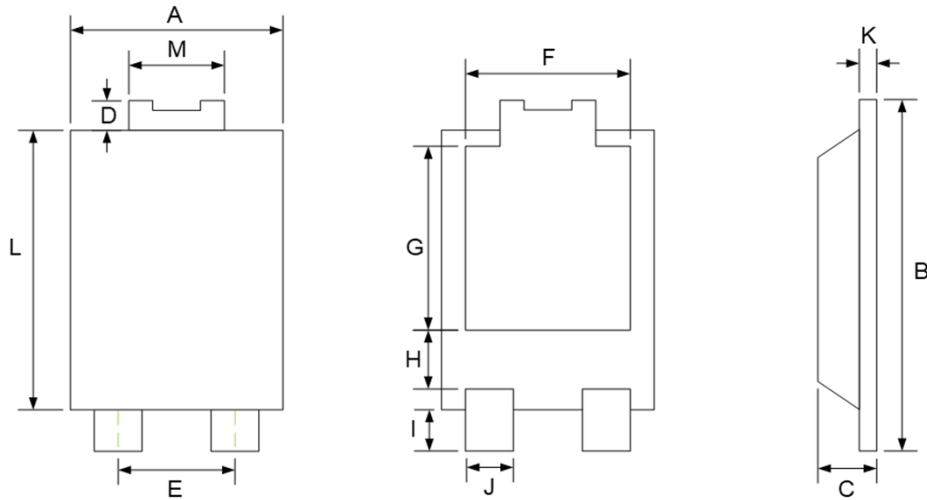


Remark: Pb free for 260°C; Pb for 245°C.

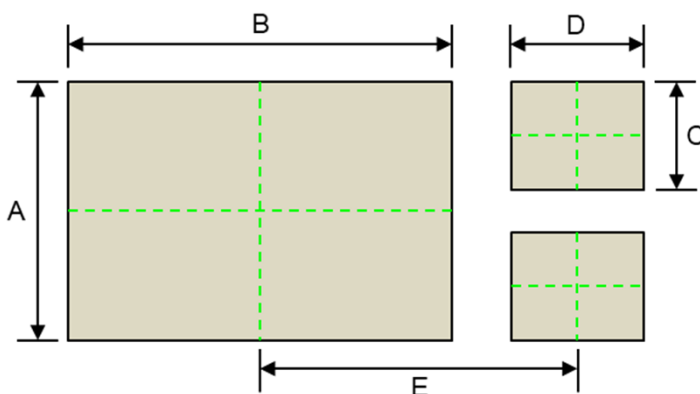
Ordering information

Device	Package	Shipping
PSBD3TD60V10H	TO-277B(Pb-free)	5000 / Tape & Reel

Product dimension (TO-277B)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	3.80	4.20	0.150	0.165
B	6.40	6.60	0.252	0.260
C	1.00	1.20	0.039	0.047
D	0.45	0.70	0.018	0.028
E	1.65	1.95	0.065	0.076
F	2.90	3.30	0.114	0.130
G	3.25	3.85	0.128	0.151
H	1.00	1.40	0.039	0.055
I	0.45	0.70	0.018	0.028
J	0.80	1.00	0.031	0.039
K	0.20	0.45	0.008	0.018
L	5.30	5.50	0.209	0.216
M	1.70	1.90	0.067	0.075




Suggested PCB Layout

Unit:mm

Dim	Millimeters	Inches
A	3.60	0.142
B	5.35	0.211
C	1.50	0.059
D	1.85	0.073
E	4.30	0.169


IMPORTANT NOTICE

 and **Prisemi**[®] are registered trademarks of **Prisemi Electronics Co., Ltd** (Prisemi), Prisemi reserves the right to make changes without further notice to any products herein. Prisemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Prisemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in Prisemi data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Prisemi does not convey any license under its patent rights nor the rights of others. The products listed in this document are designed to be used with ordinary electronic equipment or devices, Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

Website: <http://www.prisemi.com>

For additional information, please contact your local Sales Representative.

©Copyright 2009, Prisemi Electronics

 **Prisemi**[®] is a registered trademark of Prisemi Electronics.

All rights are reserved.