Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, CA 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SPB-010
SPB-015

Designer's Data Sheet

Part Number/Ordering Information 1/

SPB-0xx__

Screening 2/
- __ = Not Screened
- TX = TX Level
- TXV = TXV Level
- S = S Level

Voltage
- 010 = 100 V
- 015 = 150 V

10 AMP
BYPASS DIODE ASSEMBLY
100 - 150 VOLTS

FEATURES:
- Designed for Space Use on Flexible Solar Panels
- Hermetically Sealed
- Wide Temperature Range: -100 to 150°C
- Qualified Design to 20,000 Temperature Cycles
- Flexible Leads – Welded or Soldered Termination
- Large Radiation Surface for Operation without Heatsink
- TX, TXV, or Space Level Screening Available 2/

Maximum Ratings		Symbol	Value	Unit
Peak Repetitive Reverse and DC Blocking Voltage 3/	SPB-010 SPB-015	V_{RRM} V_{RWM} V_R	100 150	**V**
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T_C= 150°C)		I_O	10	**A**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, allow junction to reach equilibrium between pulses, T_A= 25ºC)		I_{FSM}	150	**A**
Operating & Storage Temperature		T_{OP} & T_{STG}	-100 to +150	**°C**
Maximum Thermal Resistance Junction to Case		$R_{\theta JC}$	0.8	**°C/W**

NOTES:

1/ For ordering information, operating curves, price, and availability, contact factory.

2/ Screening based on MIL-PRF-19500. Screening flows available on request.

BDA

**Dime used for size reference*

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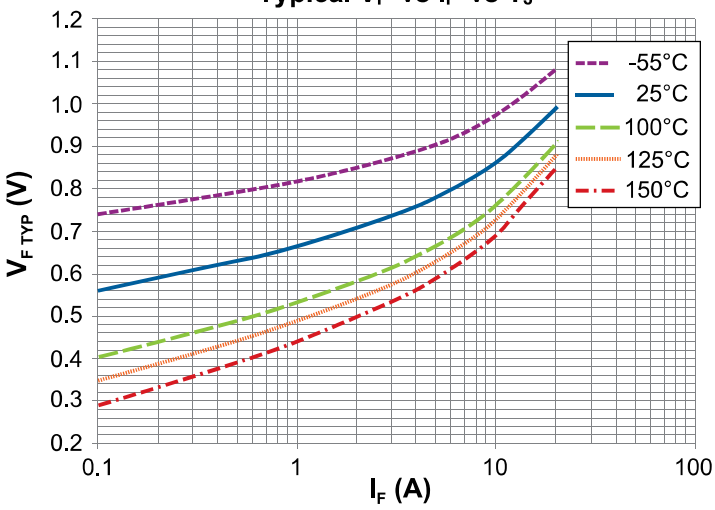
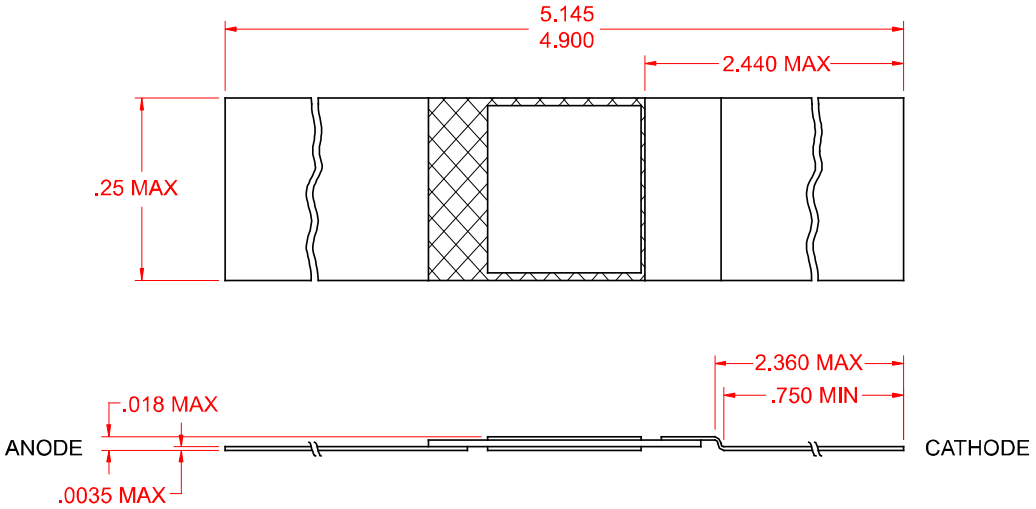
Electrical Characteristic		Symbol	Min	Max	Unit
Reverse Blocking Voltage (I_R = 5 mA_{DC}, 300 µsec min pulse, T_A = 25°C)	SPB-010 SPB-015	**BV_R**	100 150	-- --	**V**
Instantaneous Forward Voltage Drop (I_F = 6 A_{DC}, 300 – 500 µsec pulse)	T_A = 150°C T_A = 25°C T_A = -55°C	**V_{F1}** **V_{F2}** **V_{F3}**	-- -- --	0.78 0.90 1.05	**V**
Instantaneous Forward Voltage Drop (I_F = 10 A_{DC}, 300 – 500 µsec pulse)	T_A = 25°C	**V_{F4}**	--	0.95	**V**
Reverse Leakage Current (V_R = V_{RRM}, 300 µs min pulse)	T_A = 25°C	**I_{R1}**	--	50	**µA**
Reverse Leakage Current (V_R = 75% of V_{RRM}, 300 µs min pulse)	T_A = 100°C	**I_{R2}**	--	3.0	**mA**

SPB-0xx
Typical V_F vs I_F vs T_J



CASE OUTLINE: BDA



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	**DATA SHEET #: RC0208A**	**DOCX**