



# B1005S SERIES

## MINI SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

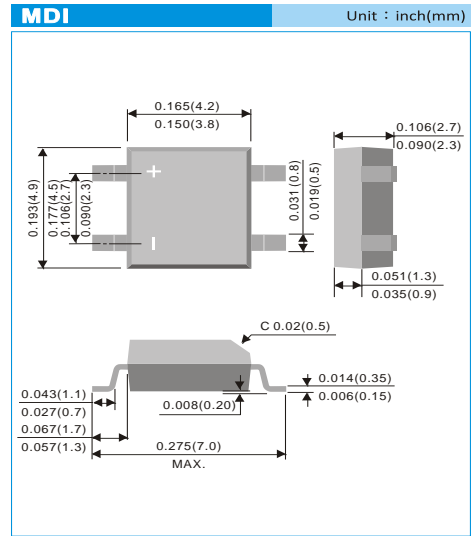
**VOLTAGE** 50~1000 Volt **CURRENT** 1 Ampere

### FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-0
- Low leakage
- Surge overload rating--30 amperes peak
- Ideal for printed circuit board
- Lead free in compliance with EU RoHS 2011/65/EU directive

### MECHANICAL DATA

- Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols molded or marking on body
- Weight: 0.0044 ounce, 0.1268 gram



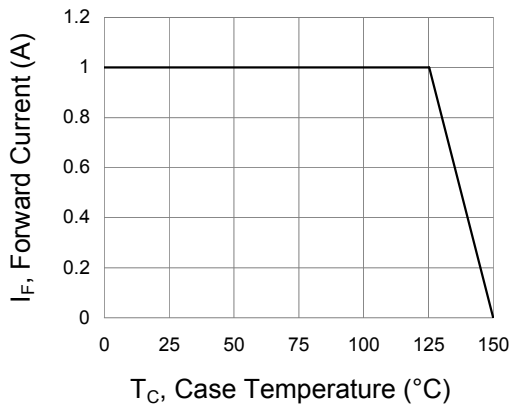
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, Resistive or inductive load.  
For capacitive load, derate current by 20%

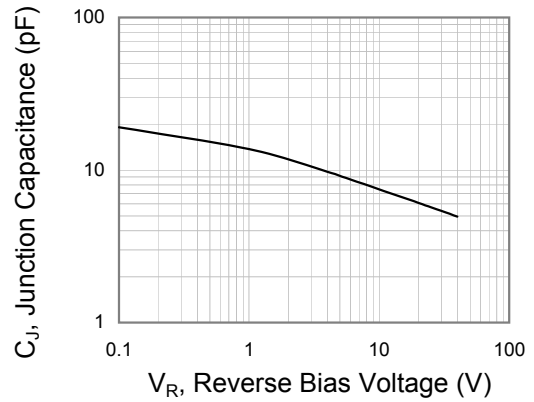
PARAMETER	SYMBOL	B1005S	B101S	B102S	B104S	B106S	B108S	B1010S	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_R$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30							A
Maximum Forward Voltage Drop per Bridge Element at 1A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5							$\mu A$
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	85 20							$^{\circ}C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^{\circ}C$



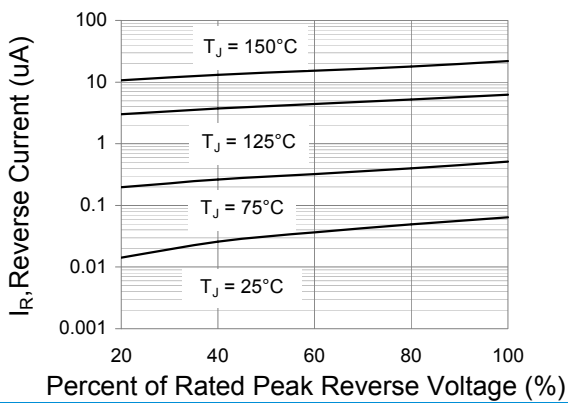
## B1005S SERIES



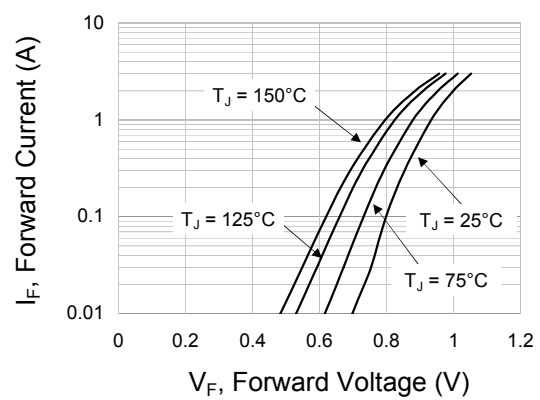
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

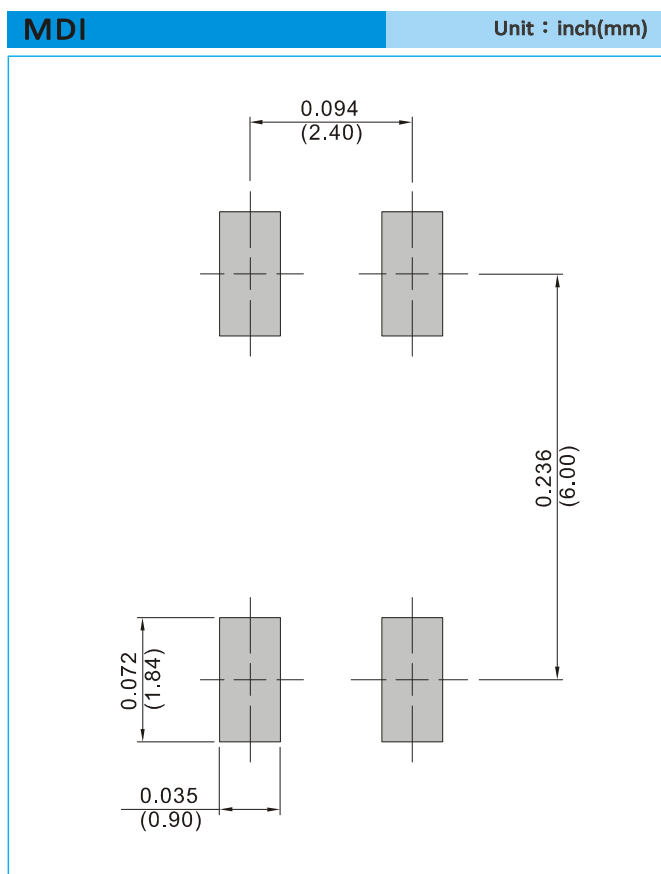


**Fig.4 Typical Forward Characteristics**



## B1005S SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information  
T/R - 3K per 13" plastic Reel



# B1005S SERIES

**Part No\_packing code\_Version**

B1005S\_R2\_00001

B1005S\_R2\_10001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			