



# B1S SERIES

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

**VOLTAGE** 100 to 1000Volt **CURRENT** 0.8 Ampere

**MDI** Unit : inch(mm)

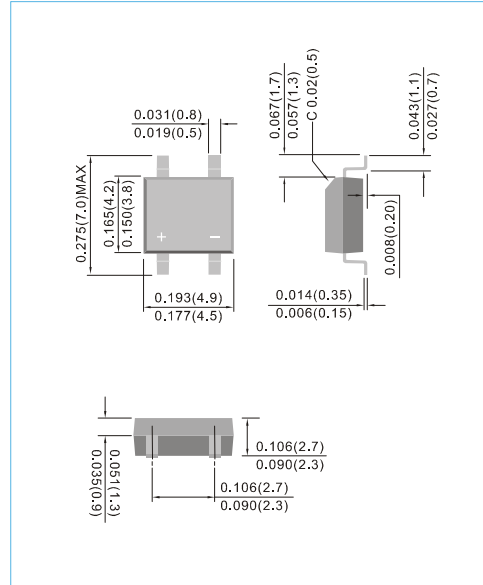
**Recongnized File # E111753**

### FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-0
- Low leakage
- Ideal for printed circuit board
- Exceeds environmental standards of MIL-S-19500
- Lead free in compliance with EU RoHS 2.0

### 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	B1S	B2S	B4S	B6S	B8S	B10S	UNITS	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V	
Maximum RMS Bridge Input Voltage	$V_{RMS}$	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_R$	100	200	400	600	800	1000	V	
Maximum Average Forward Current $T_A=55^\circ\text{C}$ $T_A=25^\circ\text{C}$	$I_{F(AV)}$	0.5 0.8							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	35							A
Power Dissipation at $T_A=25^\circ\text{C}$	$P_D$	1.4							W
$I^2t$ Rating For Fusing ( $t < 8.35\text{ms}$ )	$I^2t$	5.083							$\text{A}^2\text{S}$
Maximum Forward Voltage Drop per Bridge Element at 0.5A	$V_F$	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	5 500							$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	85 20							$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

#### NOTES :

1. Measured at 1MHz and applied reverse voltage of 4 Volts.
2. Thermal resistance from junction to ambient mounted on 5cmX6cm P.C.B. with minimum copper pads.



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## RATING AND CHARACTERISTIC CURVES

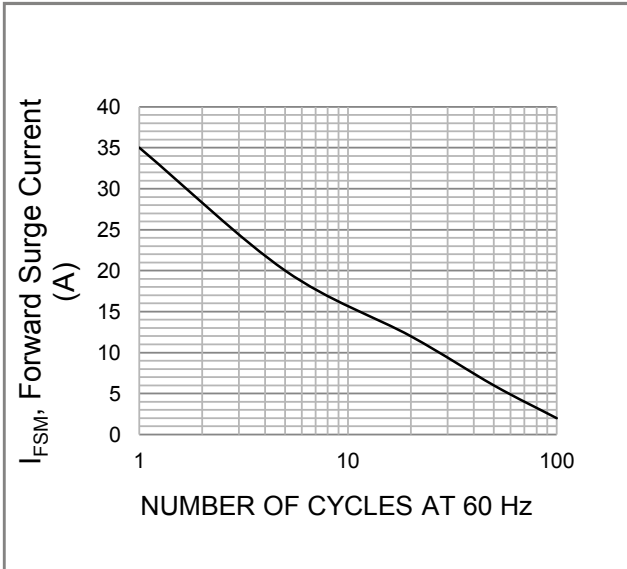


Fig.1 MAXIMUM NON-REPETITIVE SURGE CURRENT

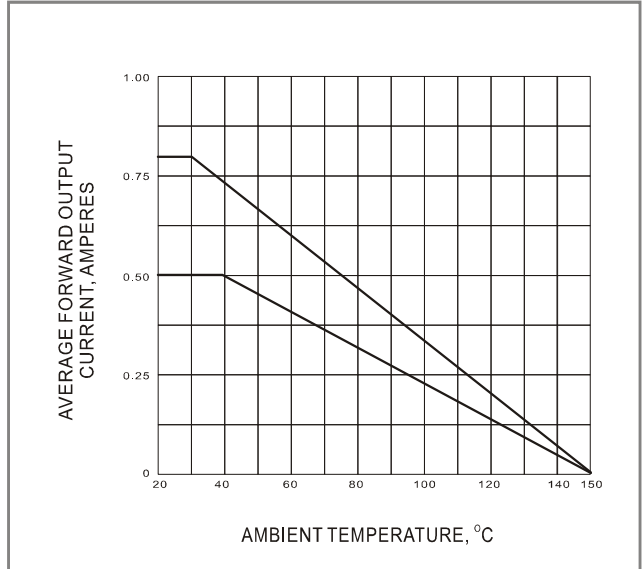


Fig.2 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

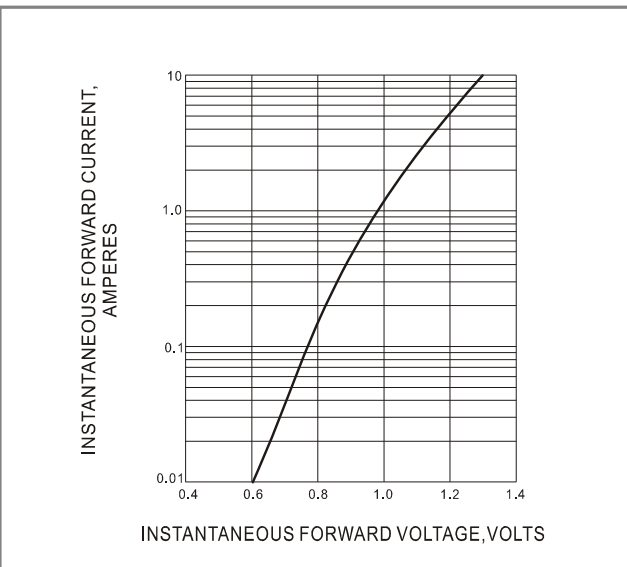


Fig.3 TYPICAL FORWARD CHARACTERISTICS

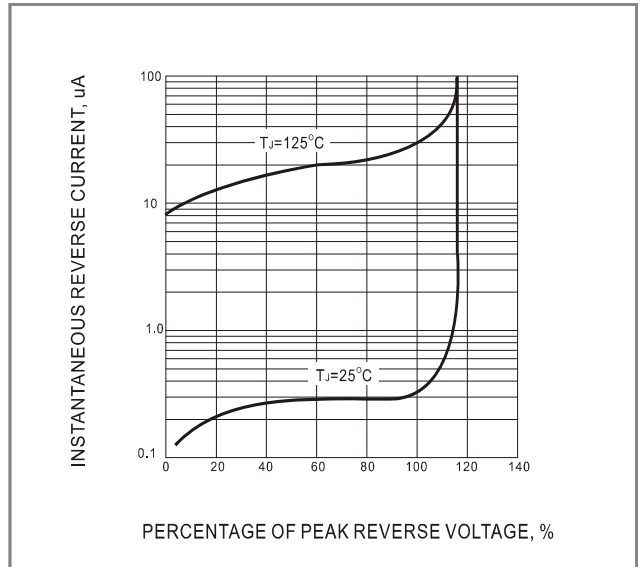
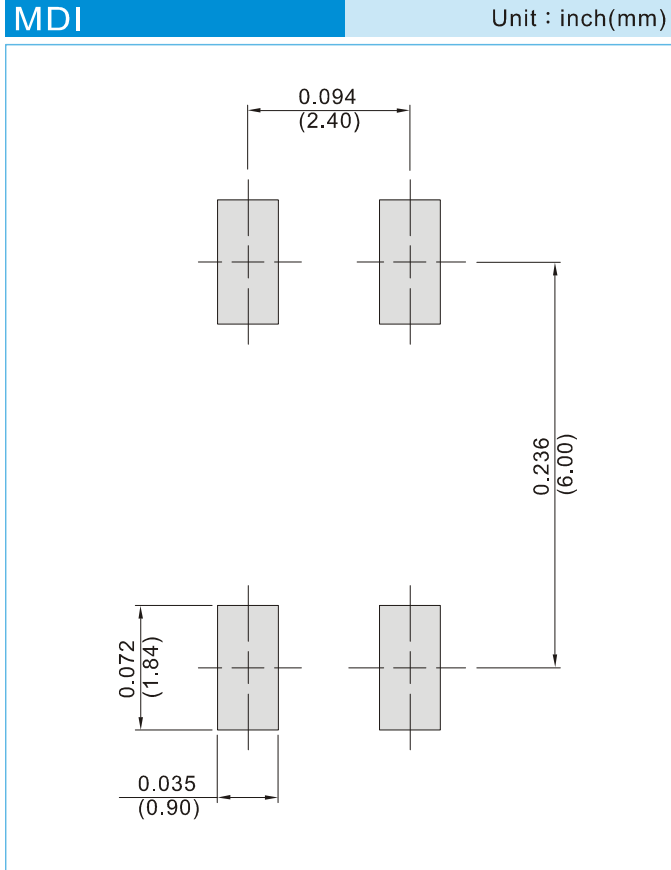


Fig.4 TYPICAL REVERSE CHARACTERISTICS



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



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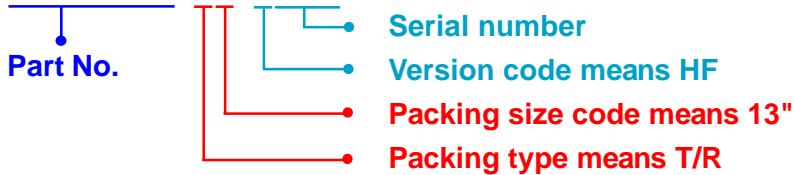
**Part No\_packing code\_Version**

B1S\_R2\_00001

B1S\_R2\_10001

For example :

**RB500V-40\_R2\_00001**



Packing Code XX				Version Code XXXXX		
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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			