



TB1S~TB10S

MICRO SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 100~1000 Volt **CURRENT** 1 Amper

MICRO DIP / TDI Unit : inch(mm)



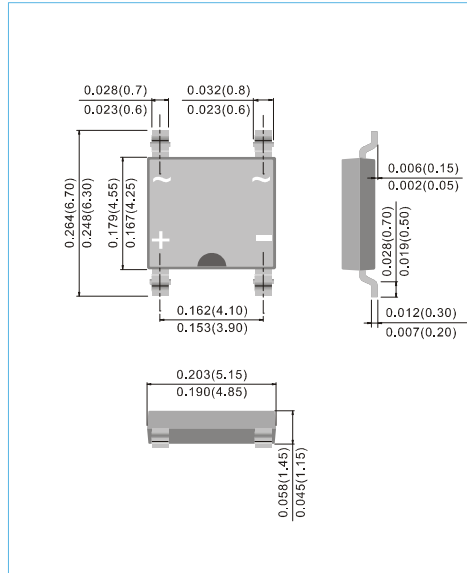
Recognized File #E139973

FEATURES

- Glass Passivated Chip Junction
- Ideally Suited for Automatic Assembly
- Save Space On Printed Circuit Boards
- Ultra Thin Profile Package for Space Constrained Utilization
- Low Forward Voltage Drop
- Surge Overload Rating to 30A peak
- Plastic Material : UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case : TDI, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : As Marked on case
- Marking : Part number
- Weight : 0.003 ounces, 0.09 grams (Approx.)



ABSOLUTE MAXIMUM RATINGS (If not specified $T_A=25^{\circ}\text{C}$)

PARAMETER	SYMBOL	TB1S	TB2S	TB4S	TB6S	TB8S	TB10S	UNIT
Maximum Recurrent 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 Forward Current (Note 1)	I_o	1						A
Peak Surge Forward Current (Note 2)	I_{FSM}	30						A
I^2t Rating for fusing ($t < 8.3\text{ms}$)	I^2t	3.735						A^2S
Operating Junction Temperature	T_J	150						$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150						$^{\circ}\text{C}$

NOTE:

1. 60Hz sine wave, R-load, On FR-4 P.C.B.
2. 60Hz sine wave, Non-repetitive 1 cycle peak value.



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ELECTRICAL CHARACTERISTICS (If not specified $T_A=25^\circ\text{C}$)

PARAMETER	SYMBOL	CONDITIONS	MAX.	UNIT
Forward Voltage	V_F	$I_F=1\text{A}$, Pulse measurement, Rating of per diode	1	V
Reverse Current	I_R	At V_{RRM} , Pulse measurement, Rating of per diode	10	μA
Typical Junction capacitance	C_J	$V_R=4\text{V}$, $f=1\text{MHz}$	10	pF
Thermal Resistance	$R_{\theta JC}$	Junction to case (Note 1)	30	$^\circ\text{C/W}$
	$R_{\theta JA}$	Junction to ambient (Note 1)	95	

NOTE:

1. Mounted on 48cm^2 FR-4 PCB.

RATING AND CHARACTERISTIC CURVES

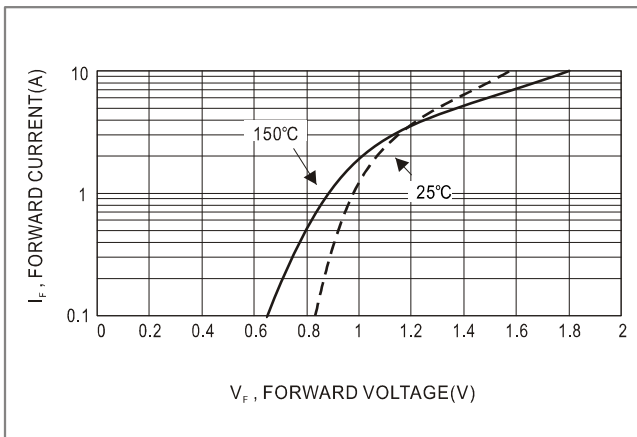


Fig.1 -TYPICAL FORWARD CHARACTERISTICS

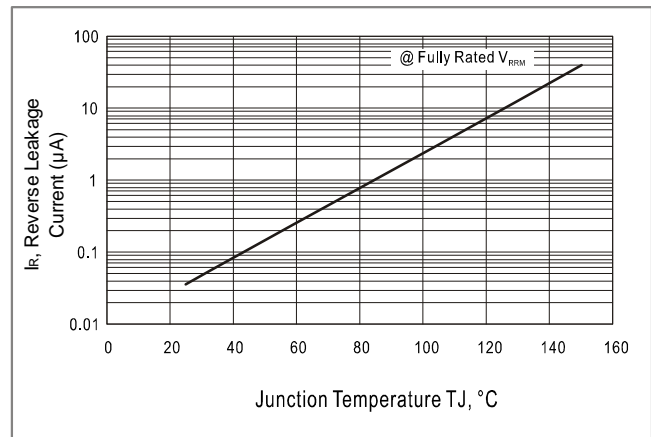


FIG-2 TYPICAL LEAKAGE CURRENT vs JUNCTION TEMPERATURE

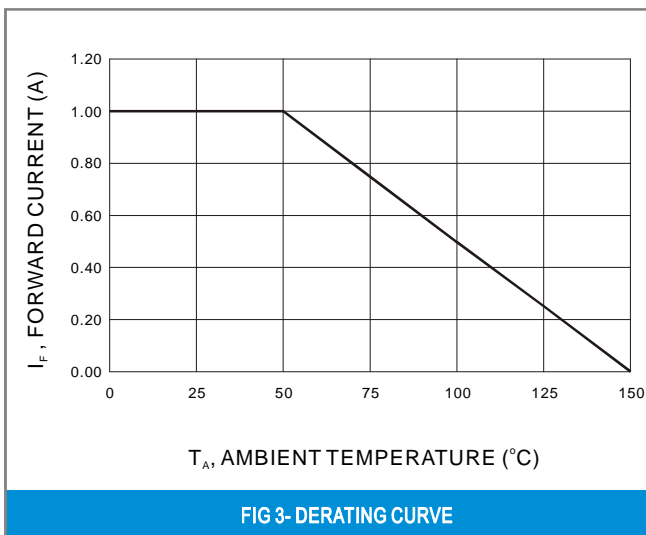
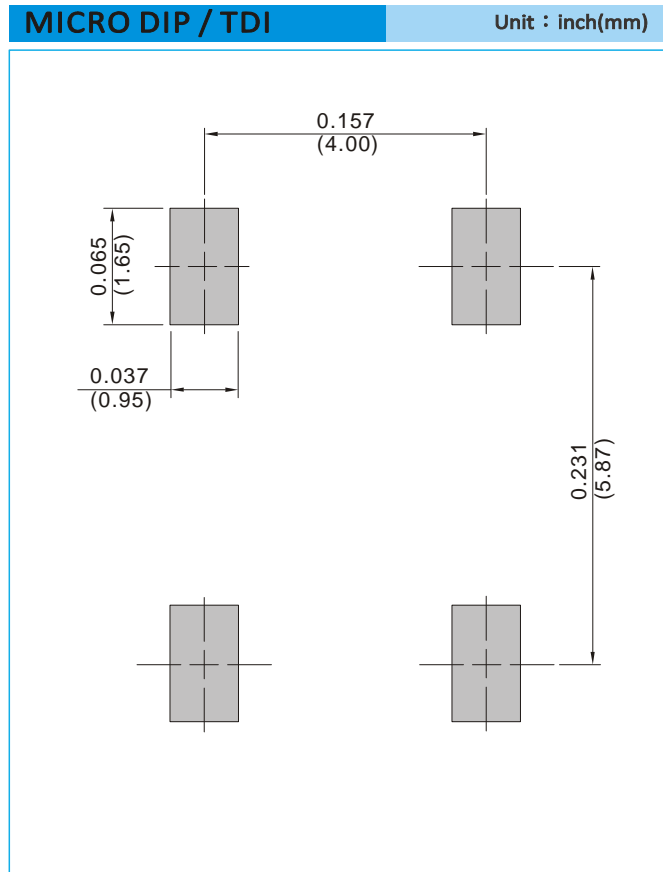


FIG 3- DERATING CURVE



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 4K per 13" plastic Reel
 - T/R - 1K per 7" plastic Reel



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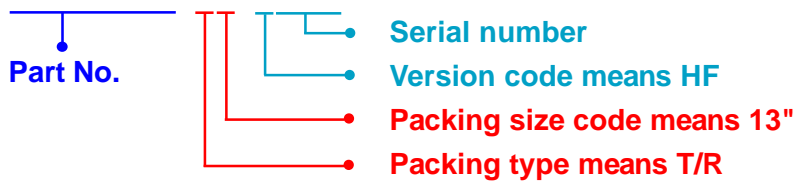
Part No_packing code_Version

TB1S_R1_00001

TB1S_R2_00001

For example :

RB500V-40 **R2** **00001**



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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			



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