



TB4S-12 SERIES

MICRO SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 400~1000 Volt **CURRENT** 1.2 Amper

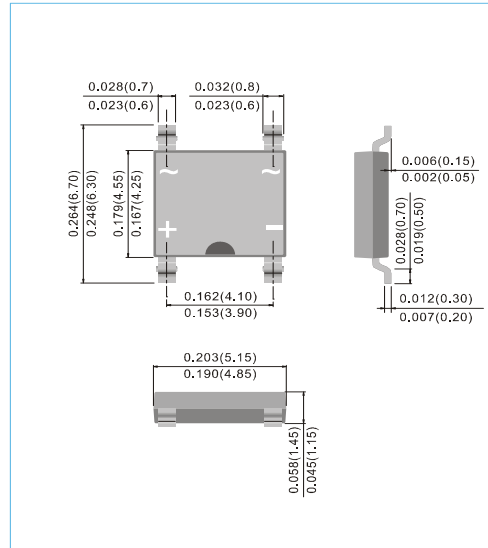
MICRO DIP / TDI Unit : inch(mm)

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
- 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
- Weight : 0.003 ounces, 0.089 grams (Approx.)
- Marking : Part number



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

PARAMETER	SYMBOL	TB4S-12	TB6S-12	TB8S-12	TB10S-12	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	400	600	800	1000	V
Maximum Average Rectified Forward Current	$I_{F(AV)}$	1.2				A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	50				A
I^2t Rating for fusing ($t < 8.3\text{ms}$)	I^2t	10.375				A^2sec
Operating Junction Temperature Range	T_J	150				$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150				$^{\circ}\text{C}$

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

PARAMETER	SYMBOL	CONDITIONS	MAX.	UNIT
Forward Voltage	V_F	$I_F=1.2\text{A}$, Pulse measurement, Rating of per diode	1.1	V
Reverse Current	I_R	At V_{RRM} , Pulse measurement, Rating of per diode	15	μA
Typical thermal Resistance Per Diode	$R_{\theta JC}$	Junction to case (Note 1)	25(typ.)	$^{\circ}\text{C}/\text{W}$
	$R_{\theta JA}$	Junction to ambient (Note 2)	160(typ.)	

NOTE :

1. Mounted on a FR4 PCB, single-sided copper, with 100cm^2 copper pad area.
2. Mounted on a FR4 PCB, single-sided copper, mini pad.



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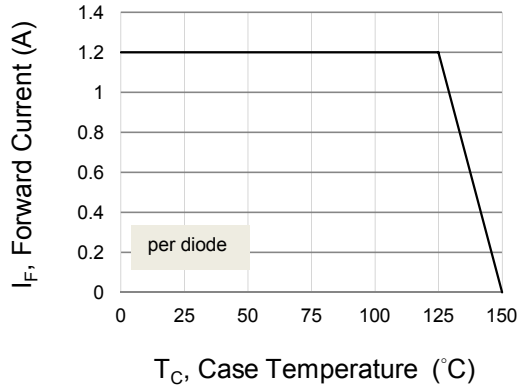


Fig.1 Forward Current Derating Curve

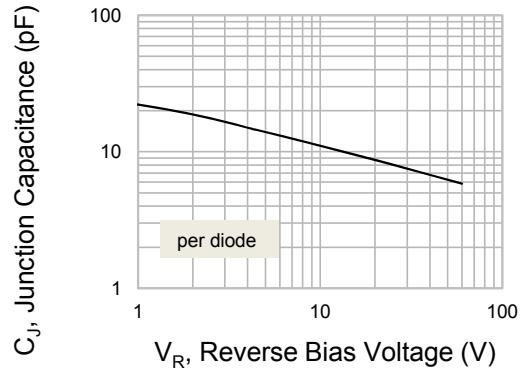


Fig.2 Typical Junction Capacitance

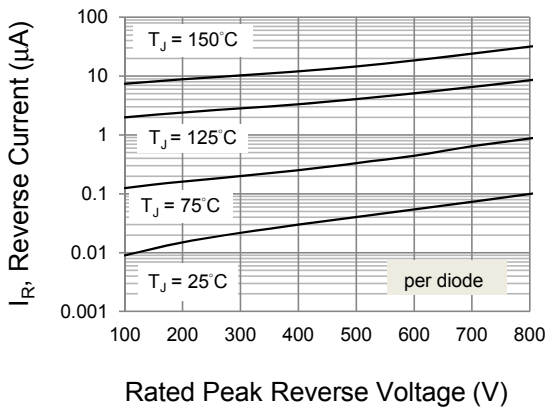


Fig.3 Typical Reverse Characteristics

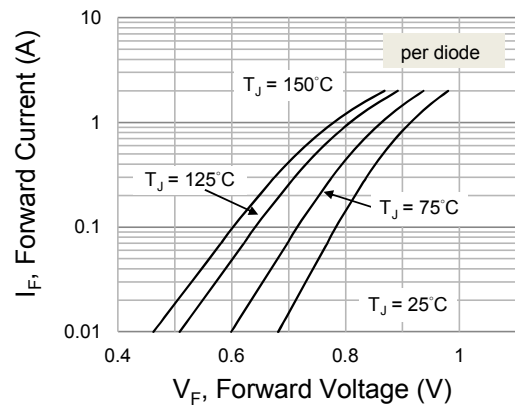


Fig.4 Typical Forward Characteristics

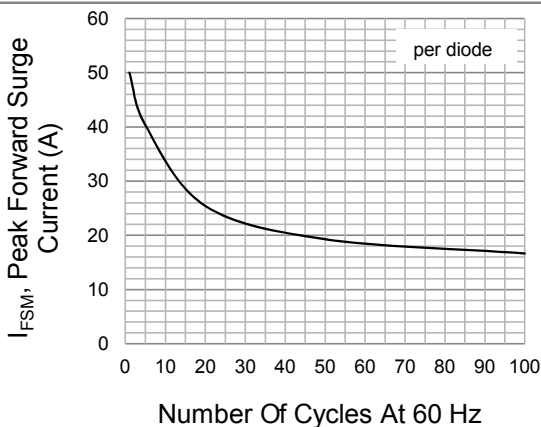
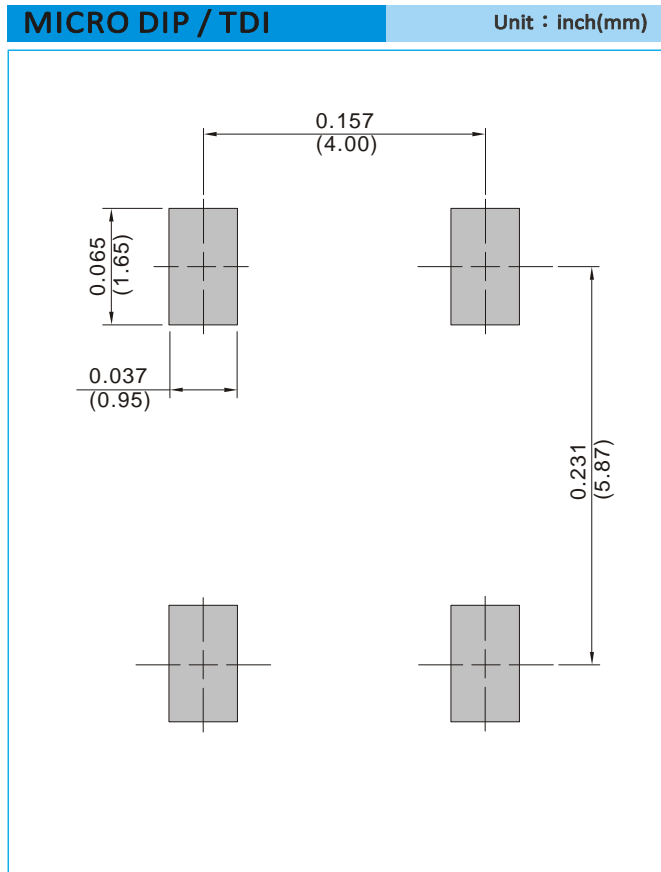


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current Uni-Directional Use Only



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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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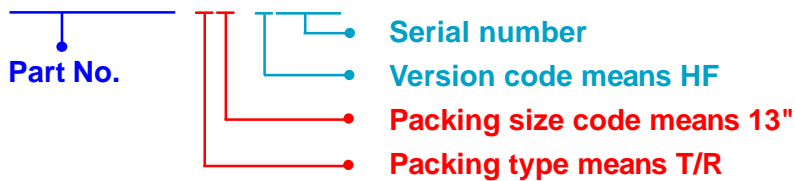
Part No_packing code_Version

TB4S-12_R1_00001

TB4S-12_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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