



# TB4S-05~TB8S-05

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

**VOLTAGE**

**400~800 Volt**

**CURRENT**

**0.5 Amper**

**MICRO DIP / TDI**

Unit : inch(mm)



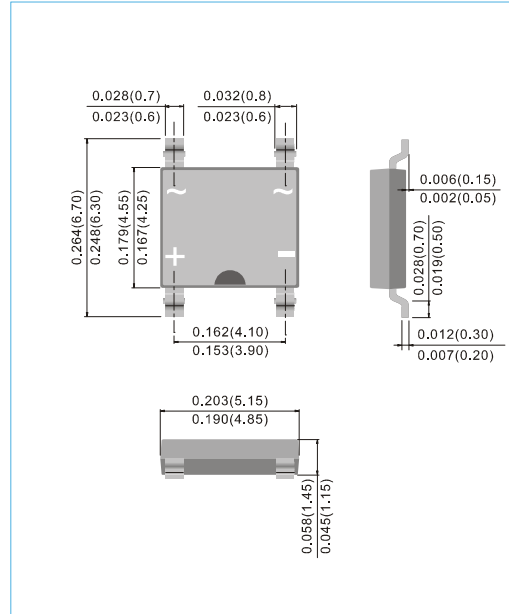
Recognized File #E139973

### 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 14A peak
- Plastic Material : UL Flammability Classification Rating 94V-O
- 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 : 0.090 grams (Approx.)



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

PARAMETER	SYMBOL	TB4S-05	TB6S-05	TB8S-05	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	400	600	800	V
Maximum RMS Voltage	$V_{RMS}$	280	420	560	V
Maximum DC Blocking Voltage	$V_{DC}$	400	600	800	V
Average Rectified Forward Current	$I_{F(AV)}$	0.5			A
Peak Surge Forward Current	$I_{FSM}$	14			A
$I^2t$ Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	0.8134			$\text{A}^2\text{S}$
Operating Junction Temperature	$T_J$	150			$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 to +150			$^\circ\text{C}$

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

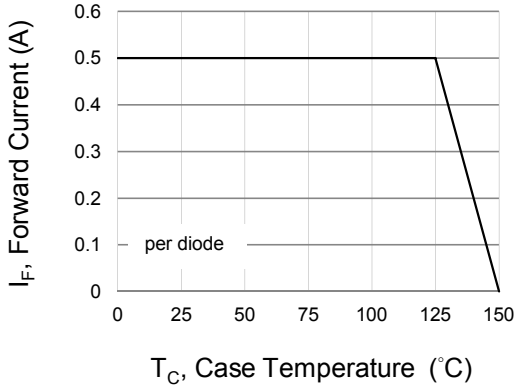
PARAMETER	SYMBOL	CONDITIONS	MAX.	UNIT
Forward Voltage	$V_F$	$I_F=0.5\text{A}$ , Pulse measurement, Rating of per diode	1	V
Reverse Current	$I_R$	At $V_{RRM}$ , Pulse measurement, Rating of per diode	1	$\mu\text{A}$
Thermal Resistance	$R_{\theta JC}$	Junction to case (Note 1)	25	$^\circ\text{C}/\text{W}$
	$R_{\theta JA}$	Junction to ambient (Note 2)	160	

Note:1.Mounted on a FR4 PCB, single-sided copper, with  $100\text{cm}^2$  copper pad area

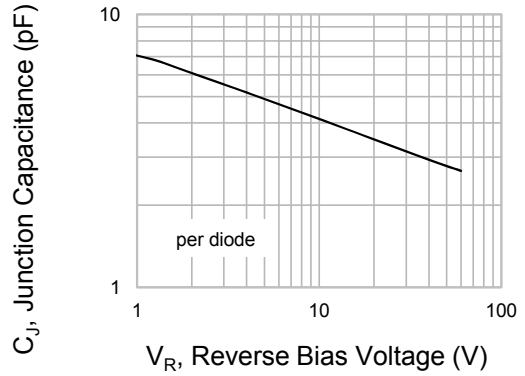
2.Mounted on a FR4 PCB, single-sided copper, mini pad.



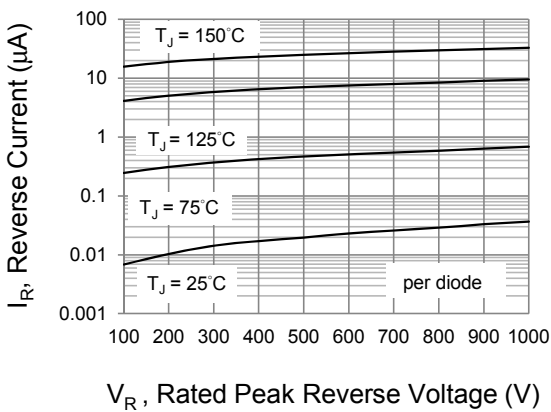
# TB4S-05~TB8S-05



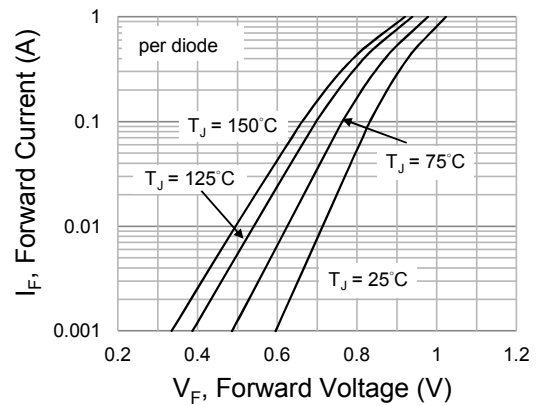
**Fig.1 Forward Current Derating Curve**



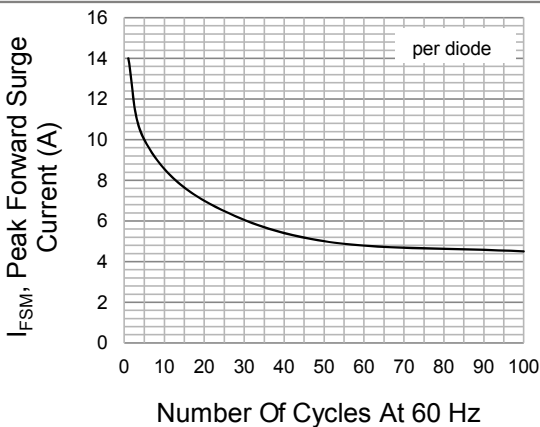
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

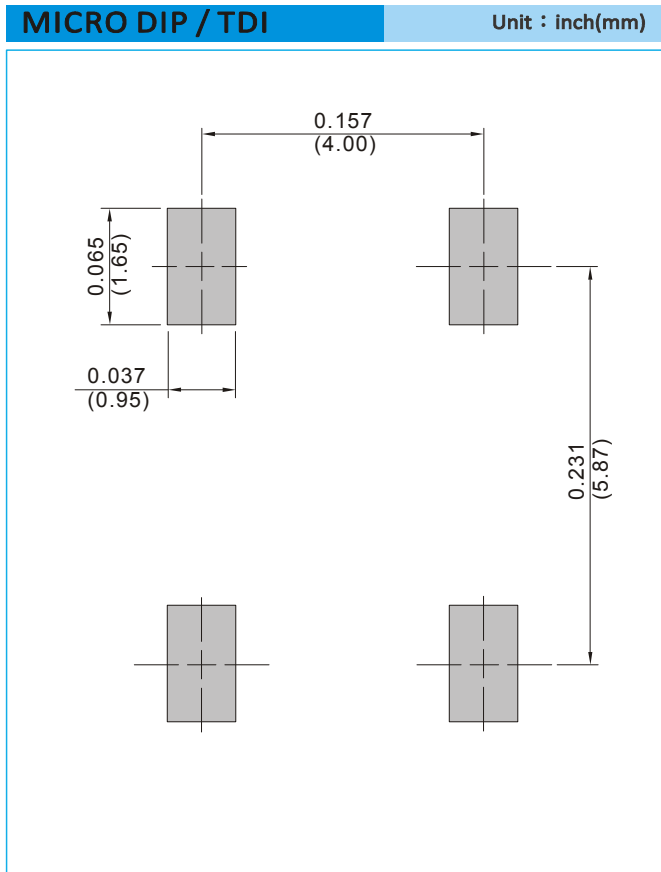


**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current Uni-Directional Use Only**



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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



# TB4S-05~TB8S-05

## Part No\_packing code\_Version

TB4S-05\_R1\_00001

TB4S-05\_R2\_00001

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>			



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