




# MB4F-10 SERIES

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

**VOLTAGE** 400~1000 Volt **CURRENT** 1 Amper

**MBF** Unit : inch(mm)

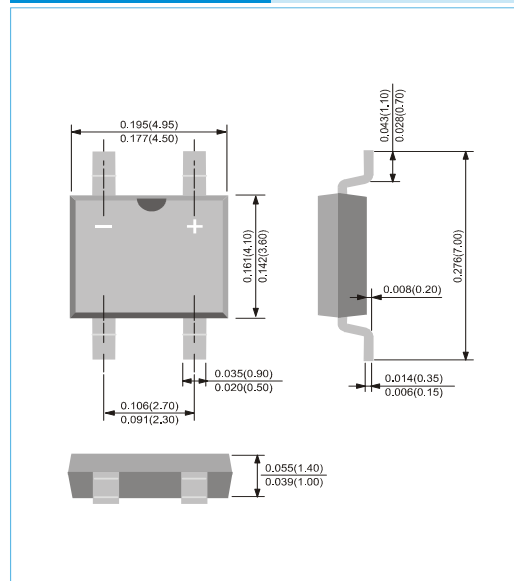
 Recognized File #E111753

### FEATURES

- Ultra Thin Profile Package for Space Constrained Utilization
- Glass Passivated Chip Junction
- Ideally Suited for Automatic Assembly
- Save Space On Printed Circuit Boards
- Low Forward Voltage Drop
- Lead free in compliance with EU RoHS 2011/65/EU directive

### MECHANICAL DATA

- Case : MBF, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : As Marked on case
- Approx weight : 0.00289 ounces, 0.0818 grams



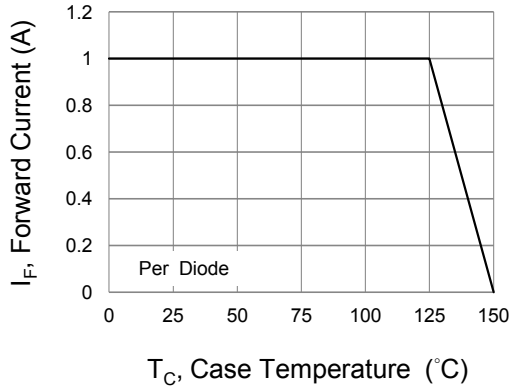
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	MB4F-10	MB6F-10	MB8F-10	MB10F-10	UNIT
Marking		MB4F1	MB6F1	MB8F1	MB10F1	
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				A
Peak Forward Surge Current : 0.5ms single square wave superimposed on rated load per diode	$I_{FSM}$	96				A
Peak Forward Surge Current : 1ms single square wave superimposed on rated load per diode	$I_{FSM}$	65				A
Peak Forward Surge Current : 8.3ms single half-sine-wave superimposed on rated load per diode	$I_{FSM}$	30				A
Rating of fusing ( $t < 8.3ms$ ) (Note 1)	$I^2t$	3.735				$A^2s$
Maximum Forward Voltage at 1A	$V_F$	1.1				V
Maximum DC Reverse Current at $T_J = 25^\circ C$	$I_R$	5				$\mu A$
Typical Thermal Resistance per diode (Note 2)	$R_{\theta JC}$	30				$^\circ C/W$
Operating Junction Temperature Range	$T_J$	-55 to +150				$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150				$^\circ C$

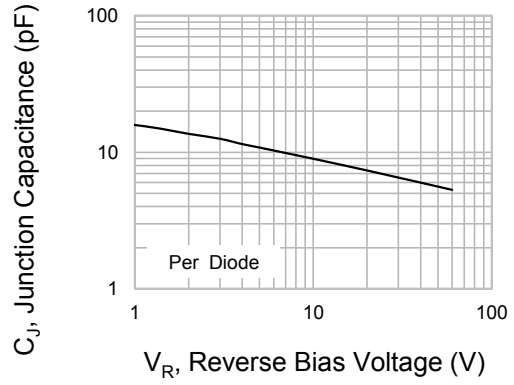
Note: 1. Non-repetitive, for  $t > 1ms$  and  $< 8.3ms$   
 2. Mounted on a FR4 PCB, single-sided copper, with  $100cm^2$  copper pad area



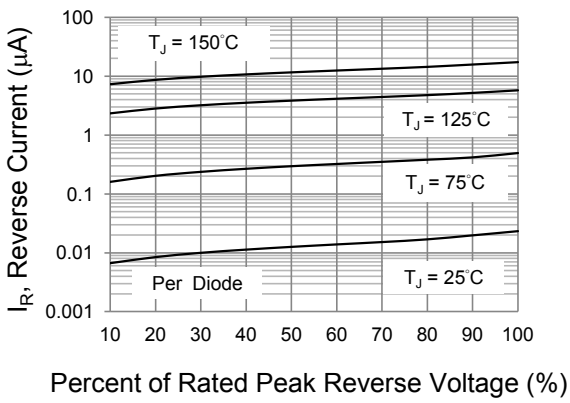
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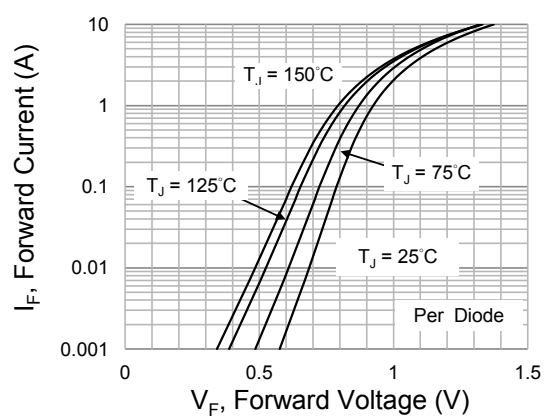
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

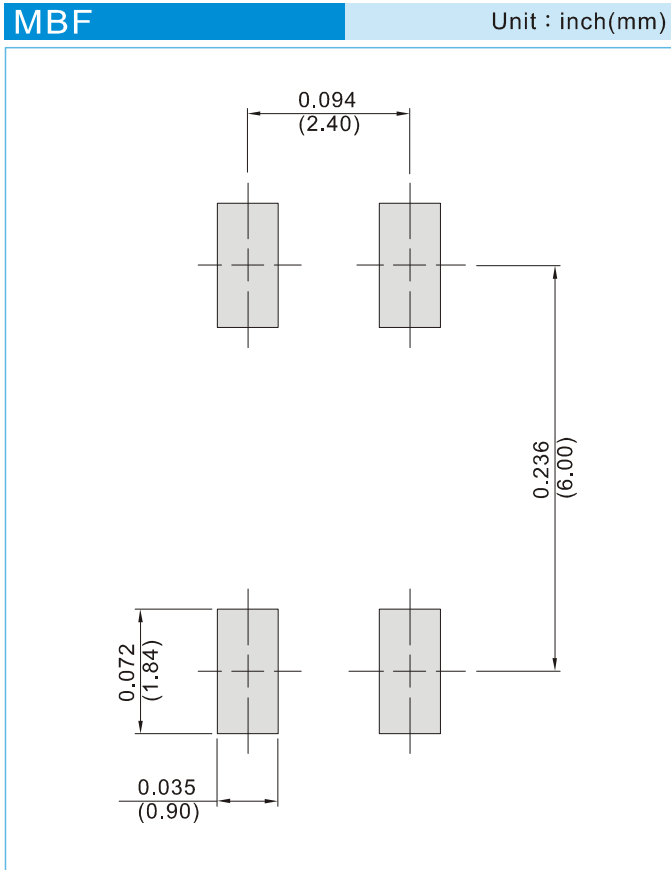


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 5K per 13" plastic Reel



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Part No\_packing code\_Version

MB4F-10\_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)	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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