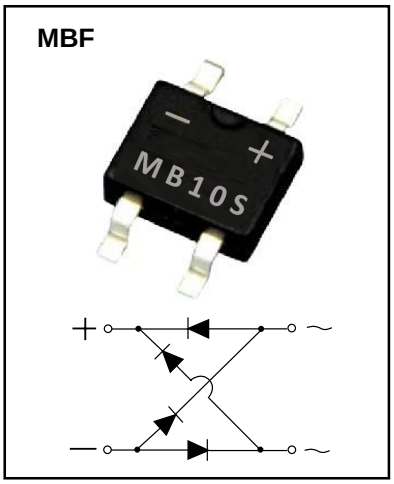
MB05S THRU MB10S

MBF Plastic-Encapsulate Bridge Rectifier

Features

- I_O 0.8A
- VRRM 50V-1000V
- High surge current capability
- Glass passivated chip
- Polarity: Color band denotes cathode



Applications

- General purpose 1 phase Bridge rectifier applications

Marking

- MBXXS
  X：From 05 To 10

Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions		MB						
					05S	1S	2S	4S	6S	8S	10S
Repetitive Peak Reverse Voltage	V_{RRM}	V			50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V			35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V			50	100	200	400	600	800	1000
Average Rectified Output Current	I_O	A	60Hz sine wave, R-load, Ta=25℃	On alumina substrate	0.8						
				On glass-epoxi substrate	0.5						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz sine wave, 1 cycle, T_j=25℃		30						
Current Squared Time	I^2t	A^2S	1ms≤t<8.3ms Tj=25℃， Rating of per diode		3.7						
Storage Temperature	T_{stg}	℃			-55 ~+150						
Junction Temperature	T_j	℃			-55 ~+150						

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	I_{FM}=0.4A, Pulse measurement, Rating of per diode	1.0
Peak Reverse Current	I_{RRM1}	μA	Maximum DC reverse current T_A=25℃	5.0
	I_{RRM2}	μA	at rated DC blocking voltage T_A=125℃	500
Thermal Resistance	$R_{\theta J-A}$	℃/W	Between junction and ambient, On alumina substrate	75
			Between junction and ambient, On glass-epoxi substrate	134
	$R_{\theta J-L}$		Between junction and lead	20
Typical junction capactiance per diode	C_J	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.	13

Typical Characteristics

FIG1:Io-Ta Curve

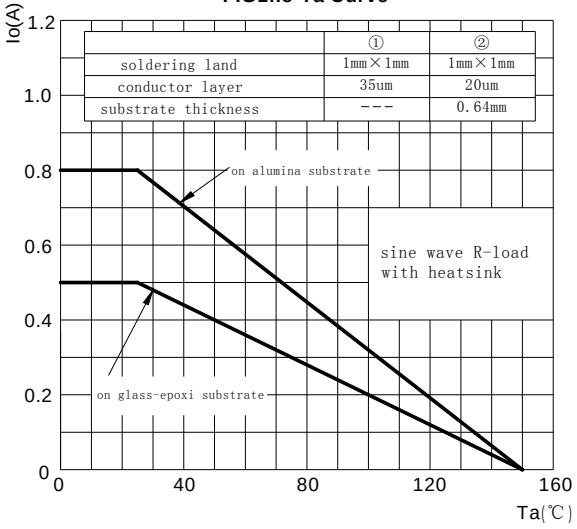


FIG2:Surge Forward Current Capadility

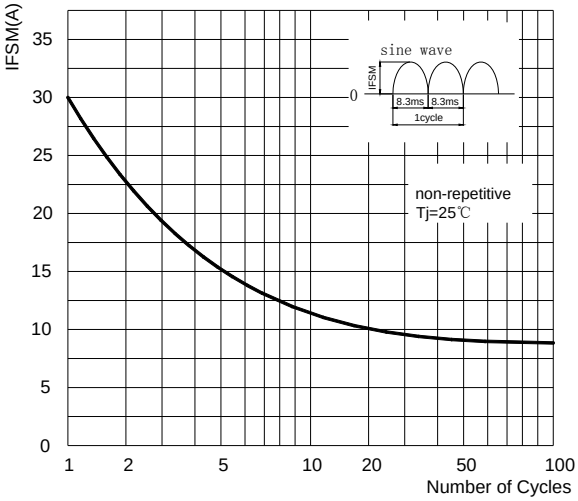


FIG3: Forward Voltage

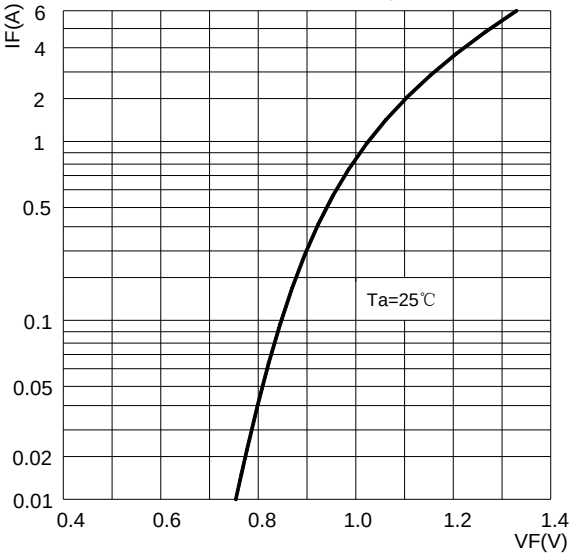


FIG4:Typical Reverse Characteristics

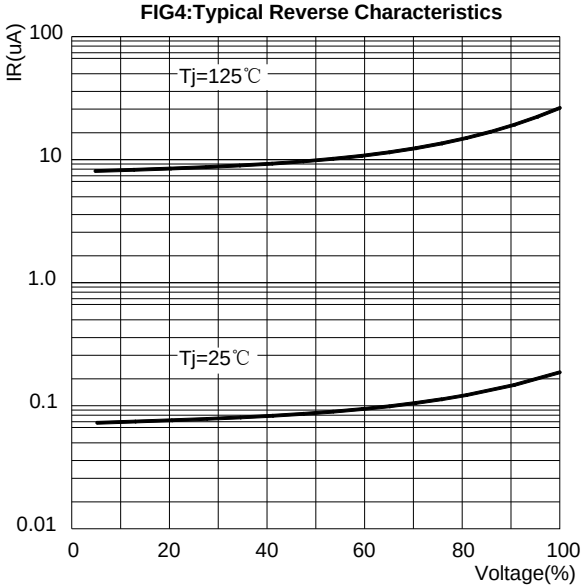
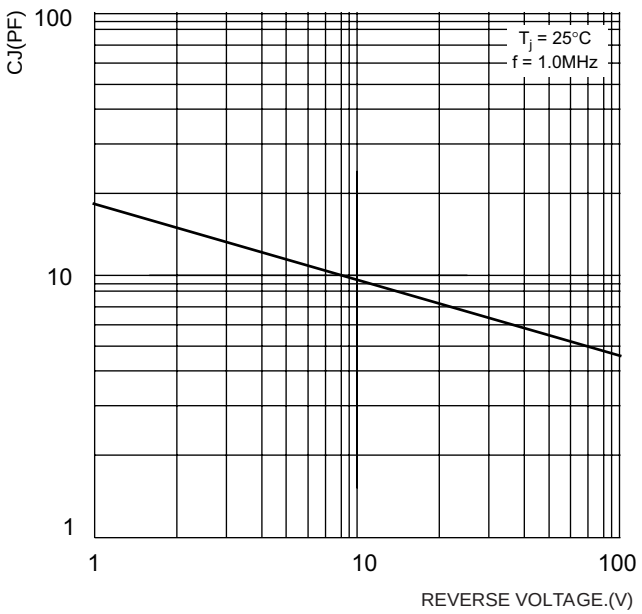
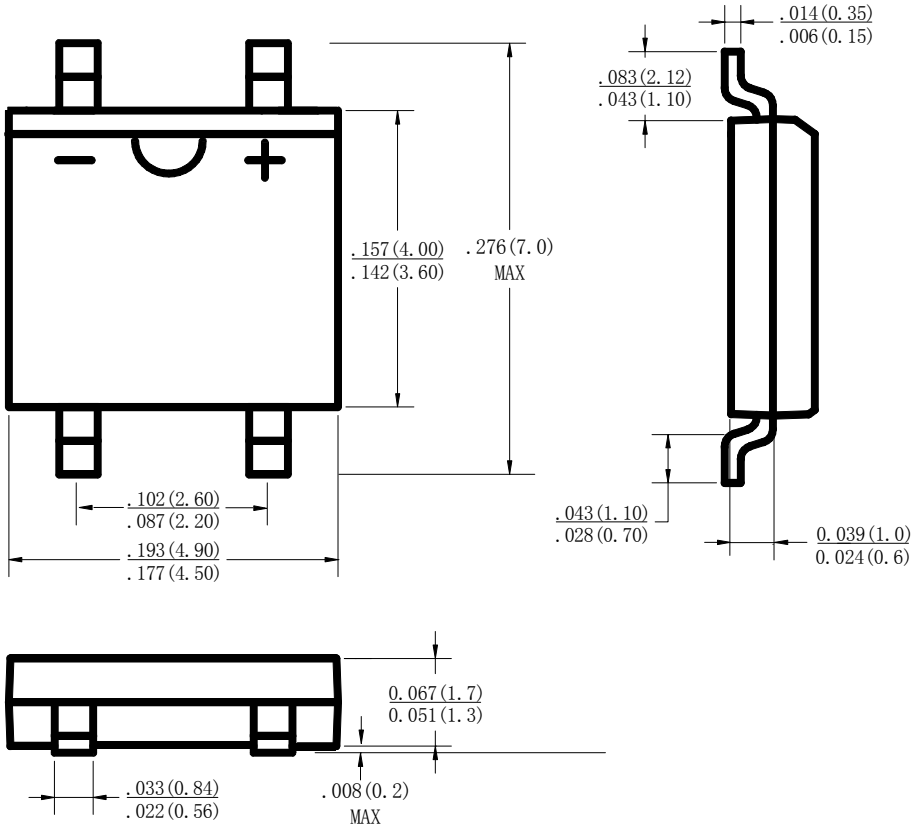


FIG5:Typical Juction Capactiance Per Diode

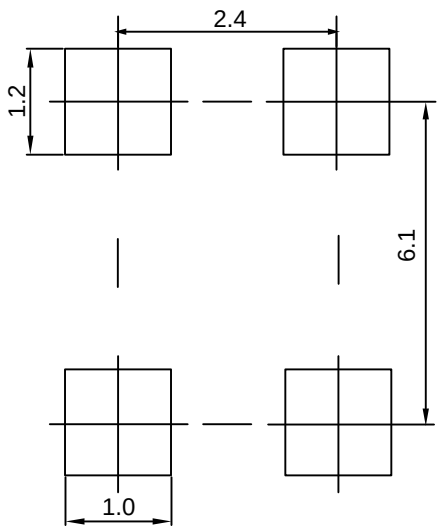


MBF Package Outline Dimensions



Dimensions in inches and (millimeters)

MBF Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

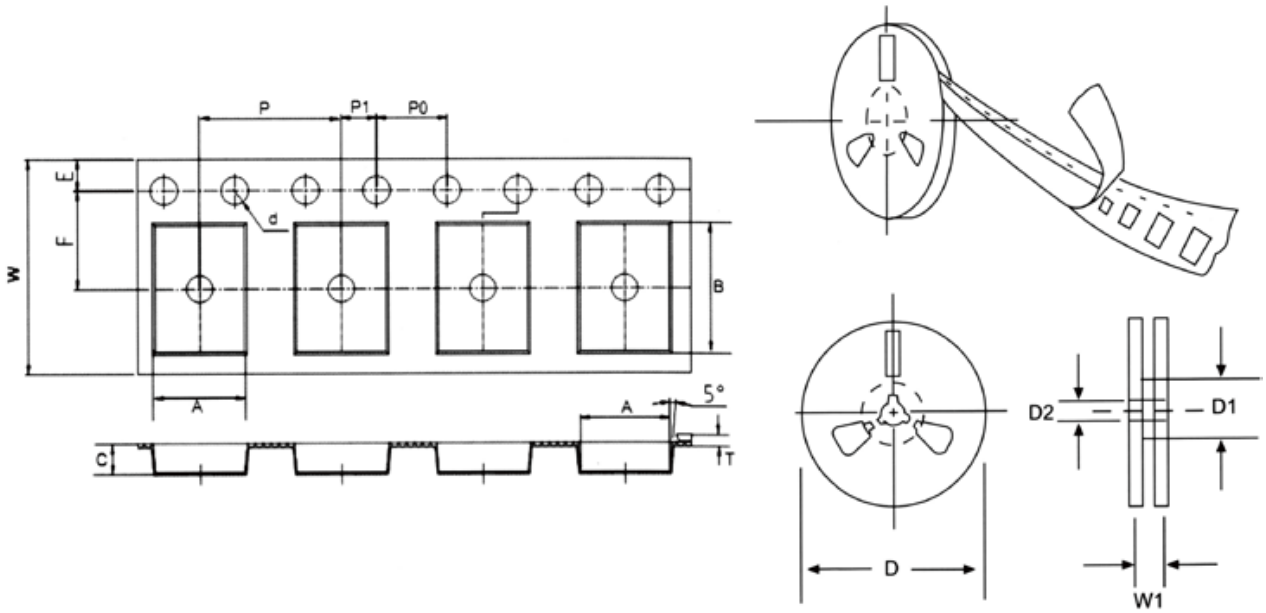


FIG:CONFIGURATION OF AXIAL TAPING

ITEM	SYMBOL	MBF mm(inch)
Carrier width	A	5.02+0.1(0.198+0.004)
Carrier length	B	7.15+0.1(0.281+0.004)
Carrier depth	C	1.65+0.1(0.074+0.004)
Sprocket hole	d	1.50+0.1/-0(0.059+0.004/-0)
Reel outside diameter	D	330/281+2.0(13/11+0.279)
Reel inner diameter	D1	8.0+0.2(0.315+0.008)
Feed hole diameter	D2	13+0.5(0.512+0.020)
Stroket hole position	E	1.75+0.1(0.069+0.004)
Punch hole position	F	5.50+0.1(0.217+0.002)
Punch hole pitch	P	8.0+0.1(0.315+0.004)
Sprocket hole pitch	P0	4.0+0.1(0.157+0.004)
Embossment center	P1	2.0+0.1(0.079+0.004)
Totall tape thickness	T	0.20-0.70(0.008-0.028)
Tape width	W	12.0+0.3/-0.1(0.472+0.004)
Reel width	W1	16.8+2.0(0.661+0.079)

NOTE:Devices are packde in accordance with EIA standard RS-481-A and specification given above.