

MBS Plastic-Encapsulate Bridge Rectifier

Features

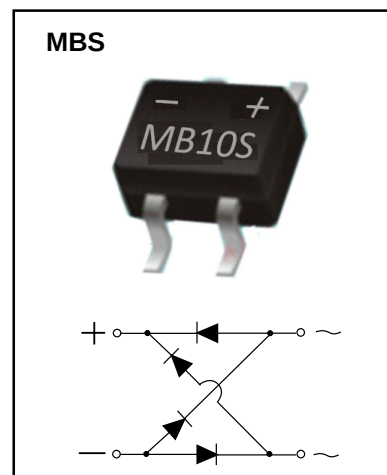
- I_O 0.8A
- V_{RRM} 50V-1000V
- High surge current capability
- Glass passivated chip
- Polarity: Color band denotes cathode

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
Average Rectified Output Current	I_O	A	60Hz sine wave, R-load, $T_a=25^{\circ}C$	On alumina substrate						
				On glass-epoxi substrate						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz sine wave, 1 cycle, $T_j=25^{\circ}C$	30						
Current Squared Time	I^2t	A ² S	$1ms \leq t \leq 8.3ms$ $T_j=25^{\circ}C$, Rating of per diode	3.7						
Storage Temperature	T_{stg}	$^{\circ}C$		-55 ~+150						
Junction Temperature	T_j	$^{\circ}C$		-55 ~+150						

Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	$I_{FM}=0.8A$, Pulse measurement, Rating of per diode	1.0
Peak Reverse Current	I_{RRM}	μA	$V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	10
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}C/W$	Between junction and ambient, On alumina substrate	76
			Between junction and ambient, On glass-epoxi substrate	134
	$R_{\theta J-L}$		Between junction and lead	20

Typical Characteristics

FIG1: I_o - T_a Curve

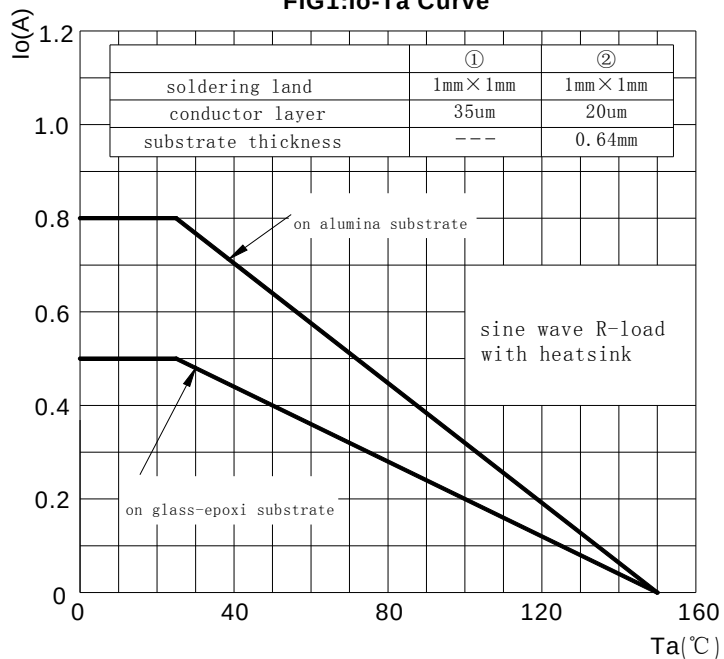


FIG2: Surge Forward Current Capability

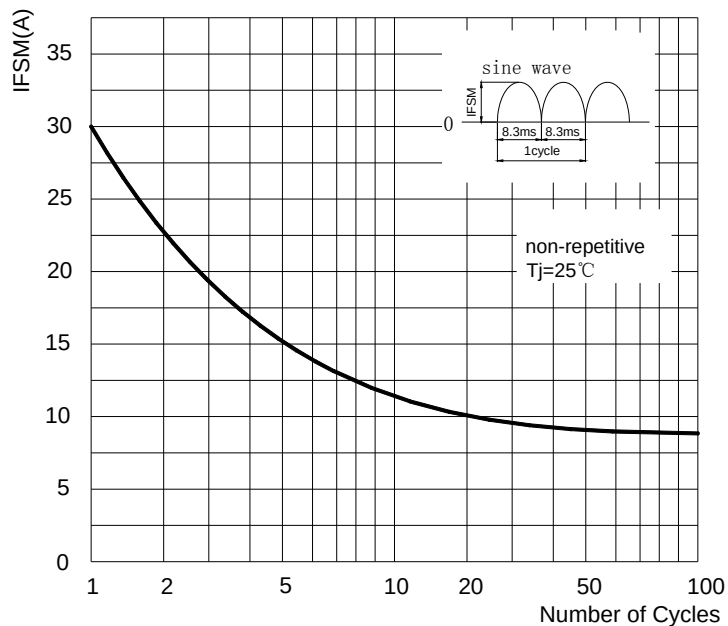


FIG3: Forward Voltage

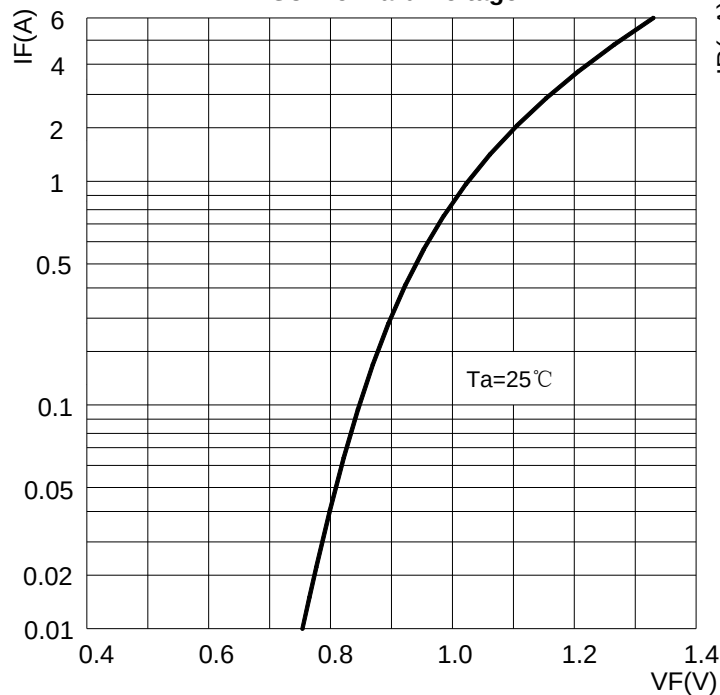
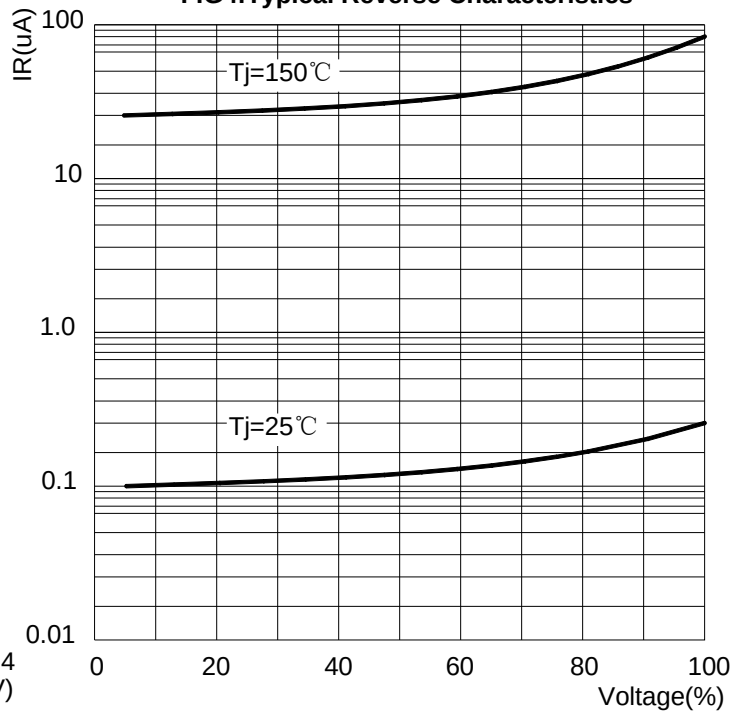
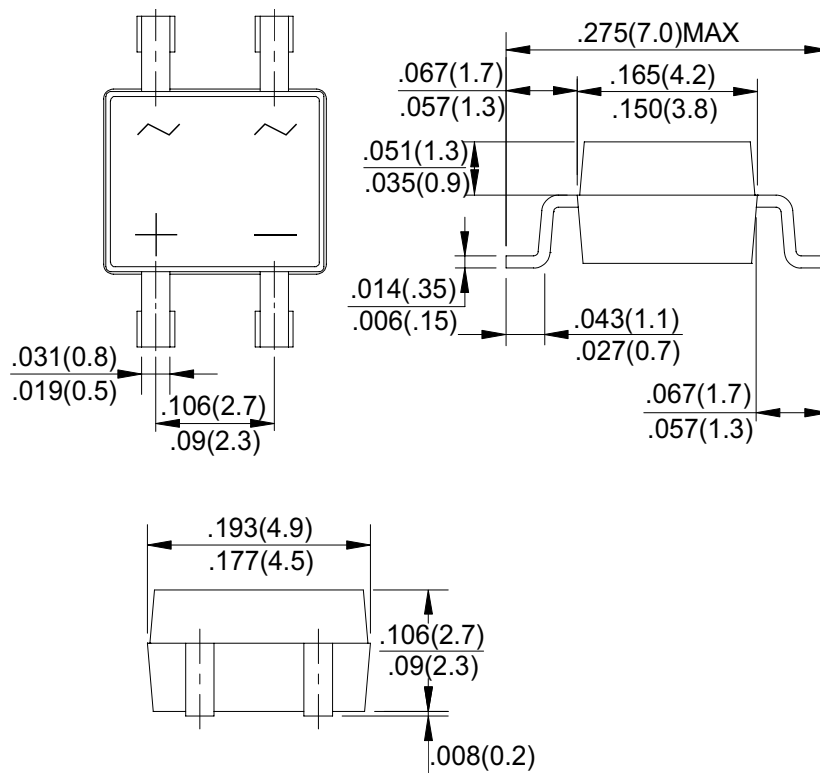


FIG4: Typical Reverse Characteristics

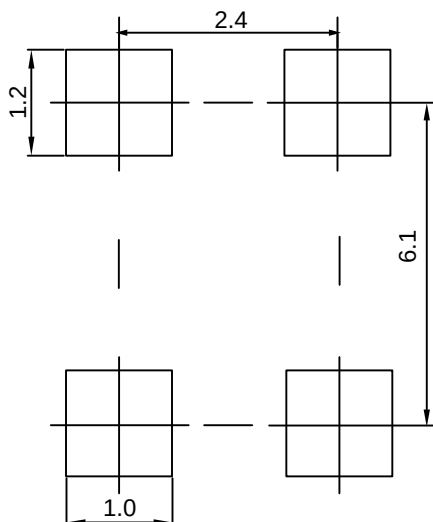


MBS Package Outline Dimensions



Dimensions in inches and (millimeters)

MBS Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

NOTICE

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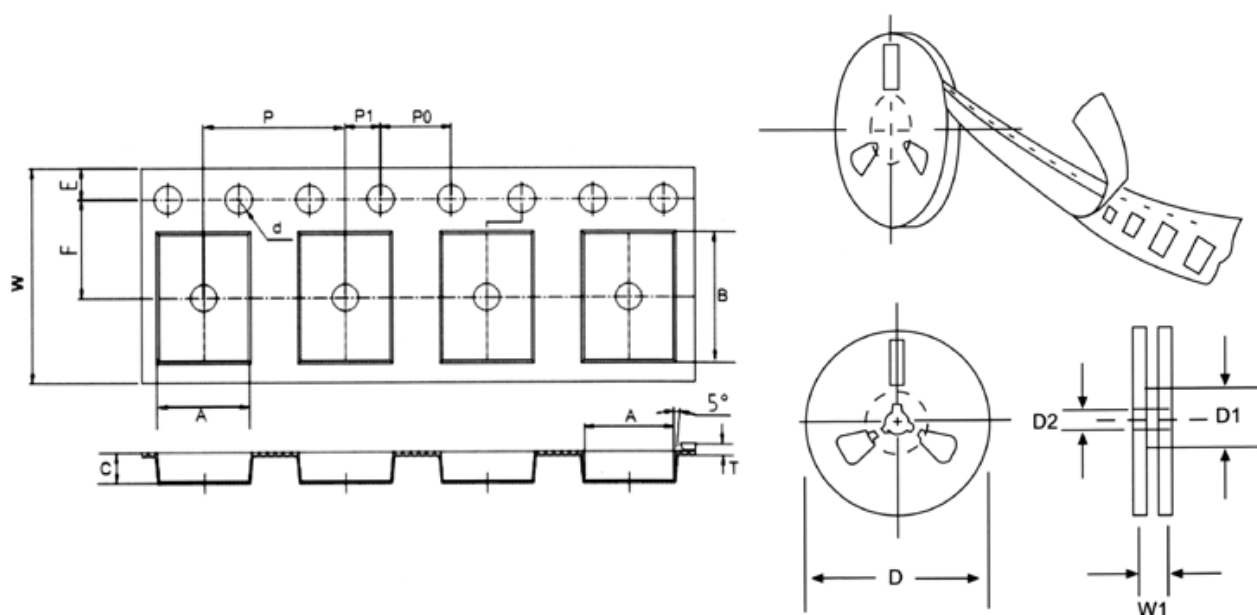


FIG:CONFIGURATION OF AXIAL TAPING

ITEM	SYMBOL	MBS mm(inch)
Carrier width	A	5.05+0.1(0.198+0.004)
Carrier length	B	7.22+0.1(0.284+0.004)
Carrier depth	C	2.88+0.1(0.113+0.004)
Sprocket hole	d	1.50+0.1(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)
Strocket hole position	E	1.75+0.1(0.069+0.004)
Punch hole position	F	5.50+0.05(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(0.080-0.028)
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 packed in accordance with EIA standard RS-481-A and specification given above.