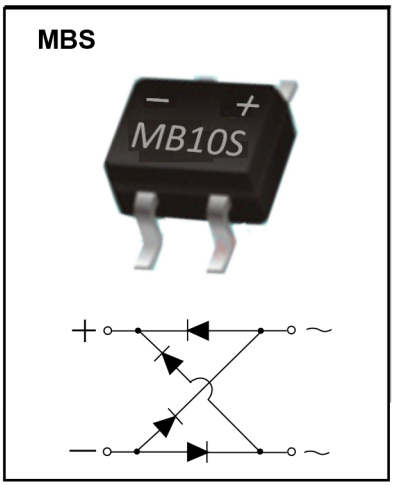
MBS Plastic-Encapsulate Bridge Rectifier

MB05S THRU MB10S General Purpose Bridge Rectifier

Features

- $I_{F(AV)}$ 1A
- V_{RRM} 50V-1000V
- High surge current capability
- Glass passivated chip



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, Ta=40℃	1.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz half sine wave, 1 cycle, T_j=25℃	35						
Current Squared Time	I^2t	A^2S	1ms≤t<8.3ms Tj=25℃, Rating of per diode	5.83						
Operation Junction and Storage Temperature Range	T_J,T_{stg}	℃		-55 ~+150						

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	I_{FM}=1.0A, 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	$R_{\theta J-A}$	℃/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

FIG.1: FORWARD CURRENT DERATING CURVE

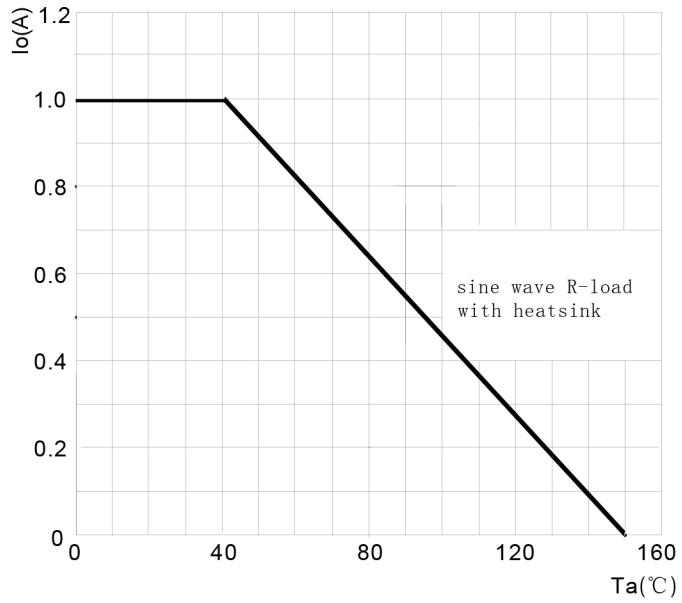


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

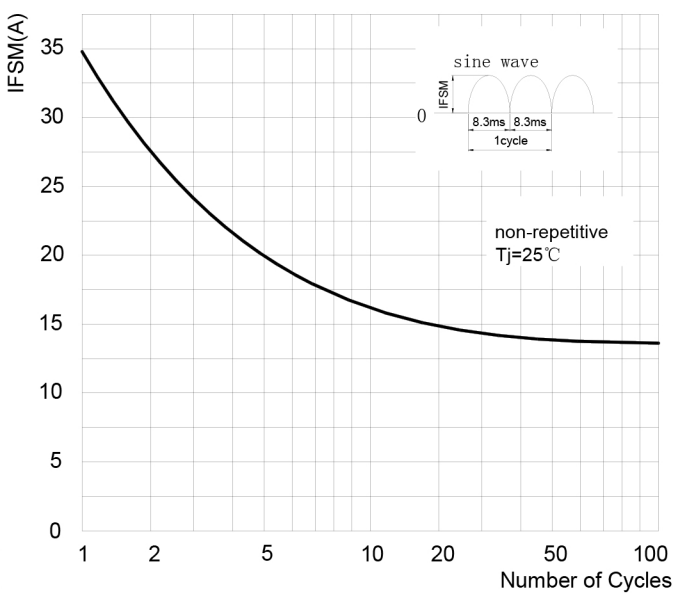


FIG.3: TYPICAL FORWARD CHARACTERISTICS

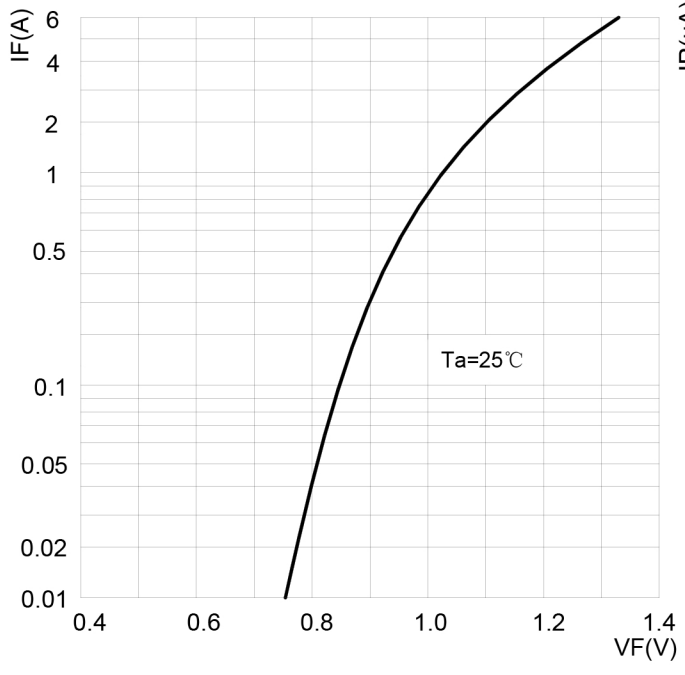
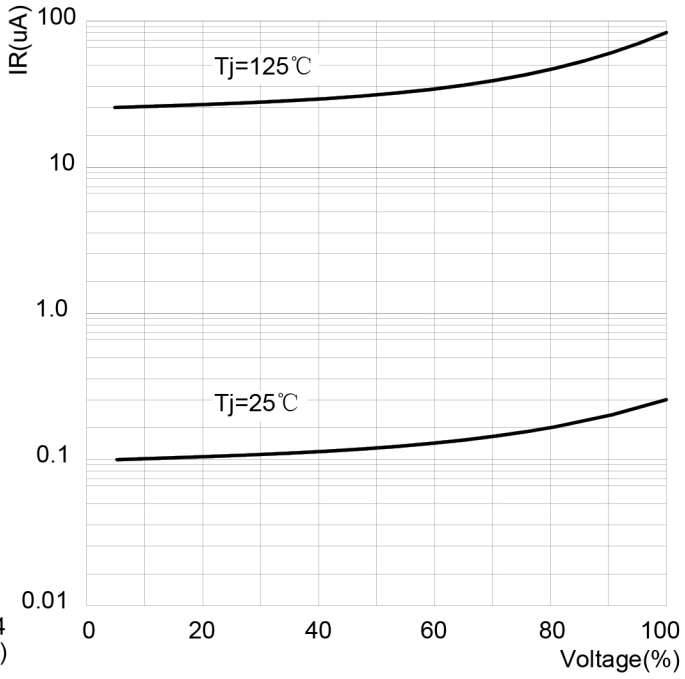
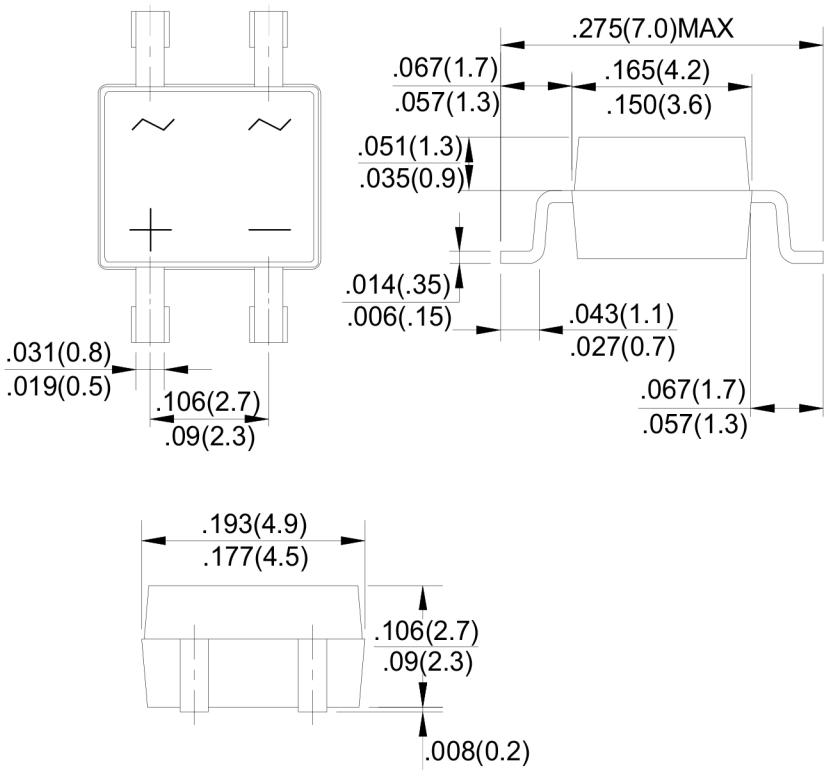


FIG.4:TYPICAL REVERSE CHARACTERISTICS

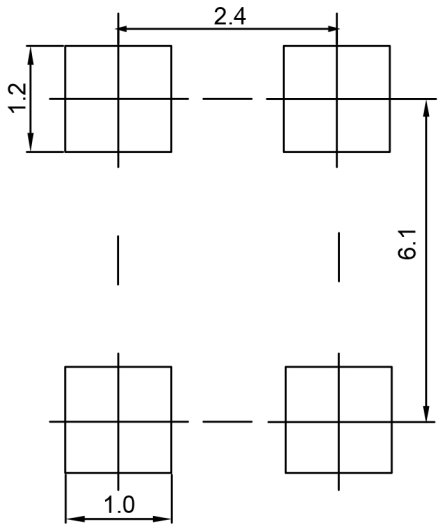


MBS Package Outline Dimensions



Dimensions in inches and (millimeters)

MBS Suggested Pad Layout



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

Reel Taping Specifications For Surface Mount Devices-MBS

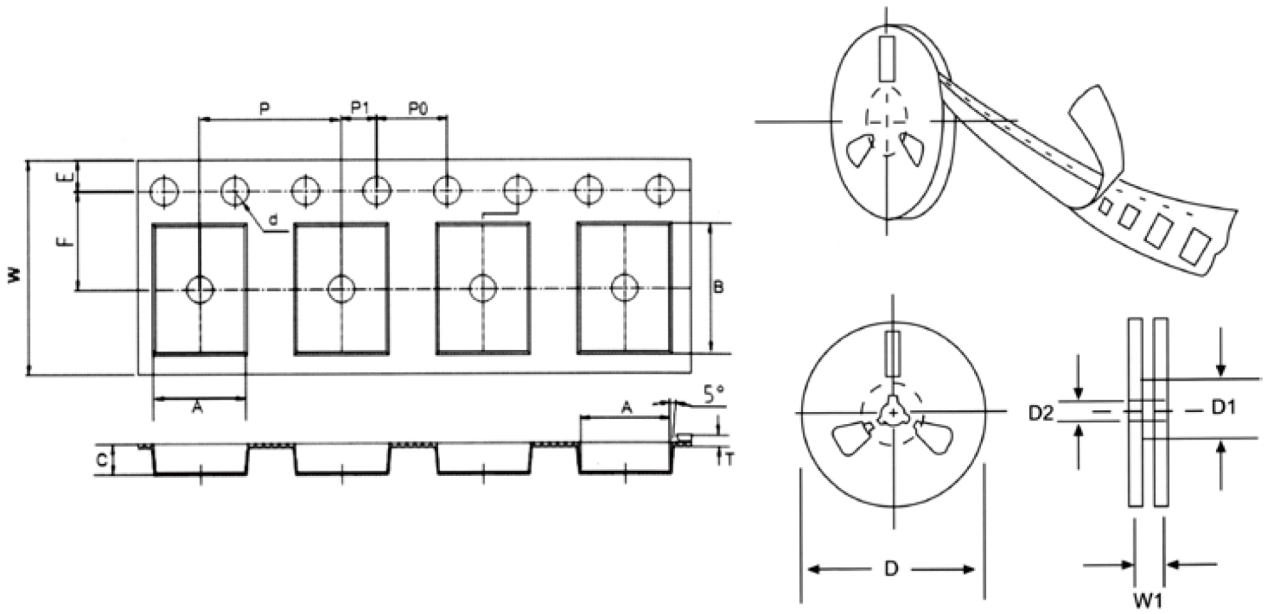


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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	1.55±0.05(0.061±0.002)
Reel outside diameter	D	330±2.0(13±0.079)
Reel inner diameter	D1	75±1.0(2.95±0.039)
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 packde in accordance with EIA standard RS-481-A and specification given above.