

## MBS Plastic-Encapsulate Bridge Rectifier

Schottky Bridge Rectifier

### Features:

- $I_{F(AV)}$  3A
- $V_{RRM}$  20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

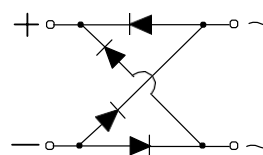
### Applications:

- Rectifier

### Marking

- KMB3XXS  
 X : From 2 To 20

MBS



### Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	KMB3														
				2S	3S	4S	5S	6S	8S	10S	15S	20S						
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		20	30	40	50	60	80	100	150	200						
Maximum RMS Voltage	$V_{RMS}$	V		14	21	28	35	42	56	70	105	140						
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, FIG.1	3.0														
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$	80														
Junction Temperature	$T_J$	$^{\circ}C$		-55 ~ +150														
Storage Temperature	$T_{STG}$	$^{\circ}C$		-55 ~ +150														

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

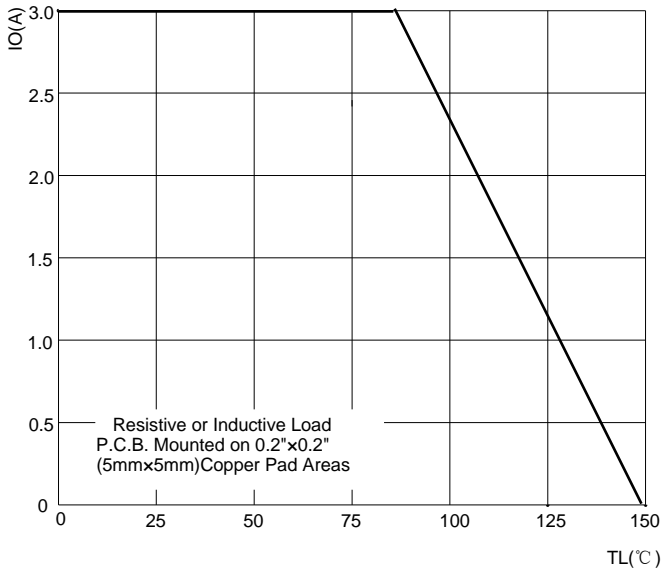
Item	Symbol	Unit	Test Condition	KMB3														
				2S	3S	4S	5S	6S	8S	10S	15S	20S						
Peak Forward Voltage	$V_F$	V	$I_F=3.0A$	0.55		0.70		0.85		0.95								
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$		0.1		0.02										
	$I_{RRM2}$			$T_a=100^{\circ}C$		5.0		3.0										
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^{\circ}C/W$	Between junction and ambient	75														
	$R_{\theta J-L}$		Between junction and terminal	15														

### Notes:

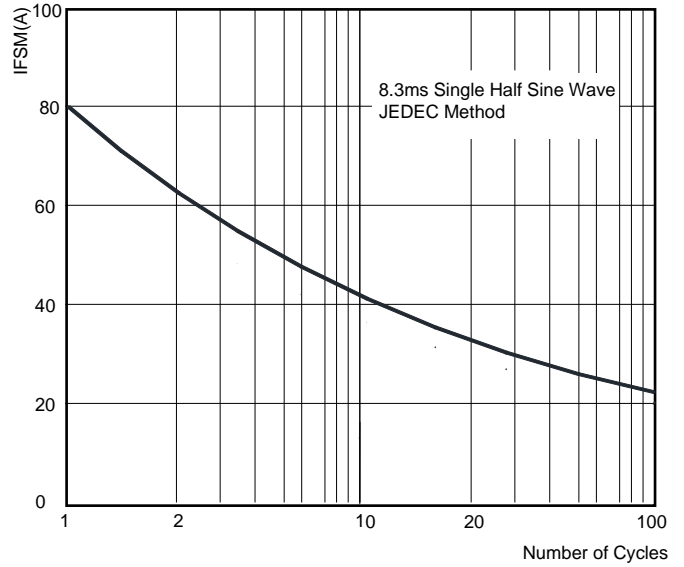
Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

**Typical Characteristics**

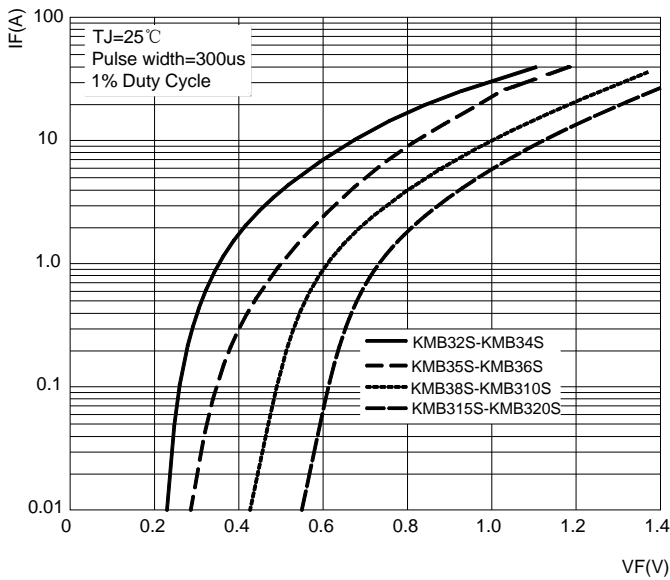
**FIG.1: FORWARD CURRENT DERATING CURVE**



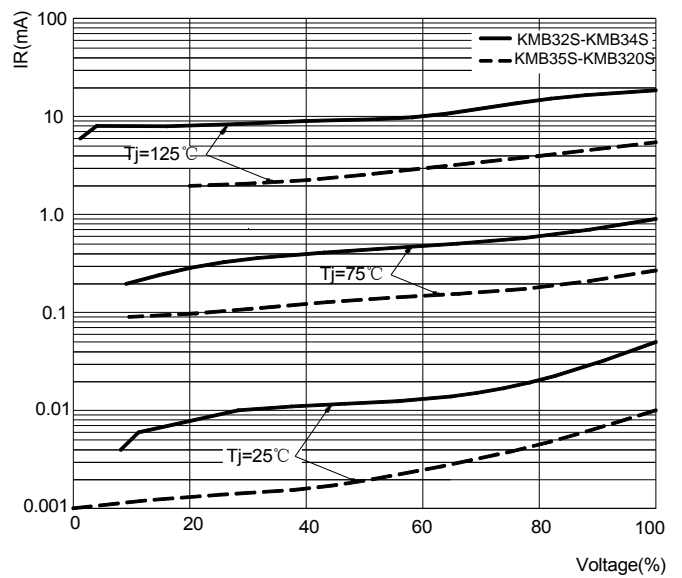
**FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



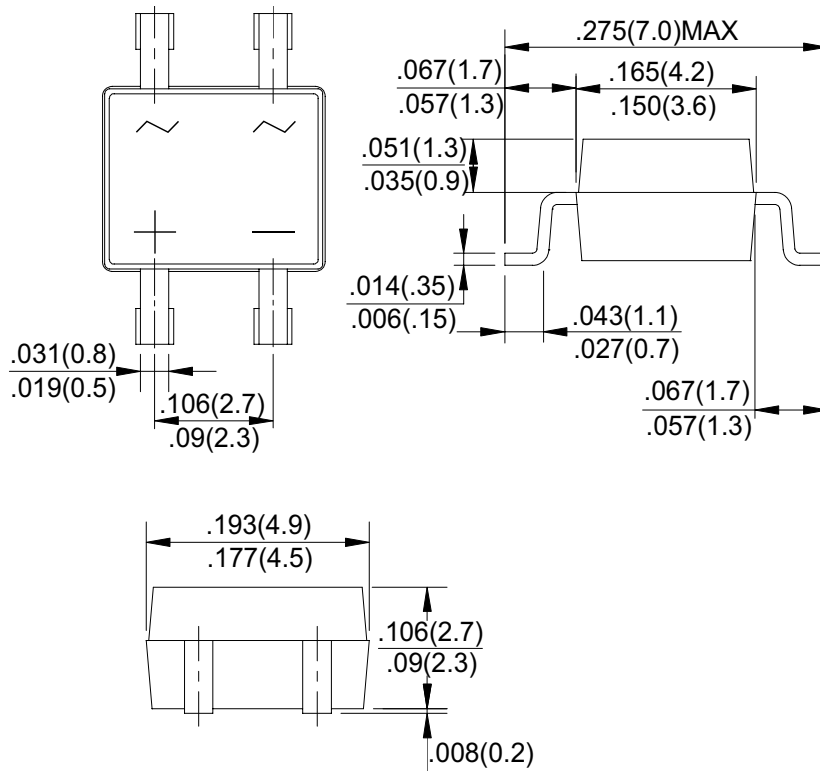
**FIG.3: TYPICAL FORWARD CHARACTERISTICS**



**FIG.4: TYPICAL REVERSE CHARACTERISTICS**

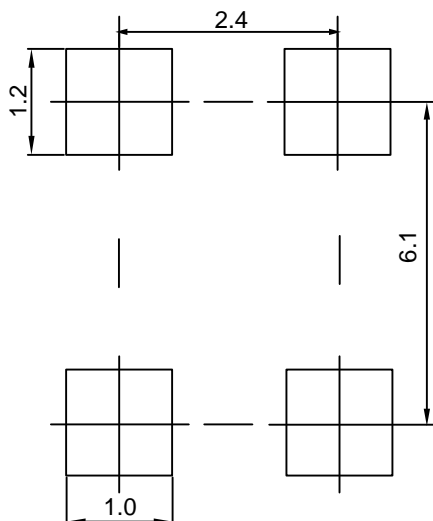


**MBS Package Outline Dimensions**



Dimensions in inches and (millimeters)

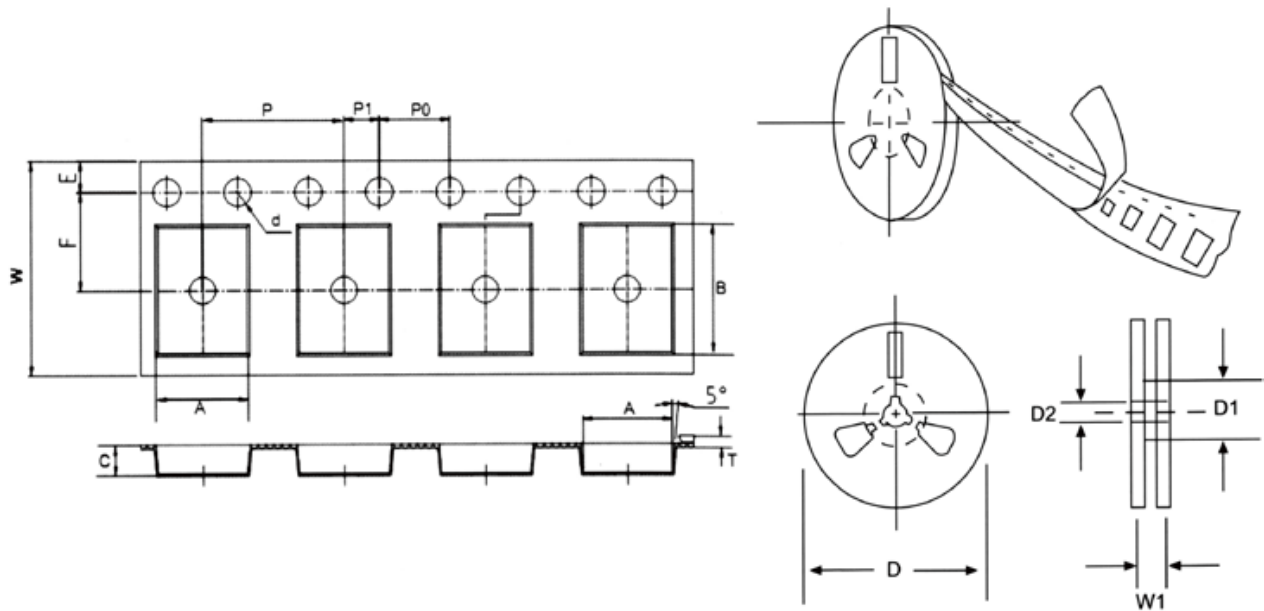
**MBS Suggested Pad Layout**



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
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)
Sprocket 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)
Total 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.