

MBS Plastic-Encapsulate Bridge Rectifier

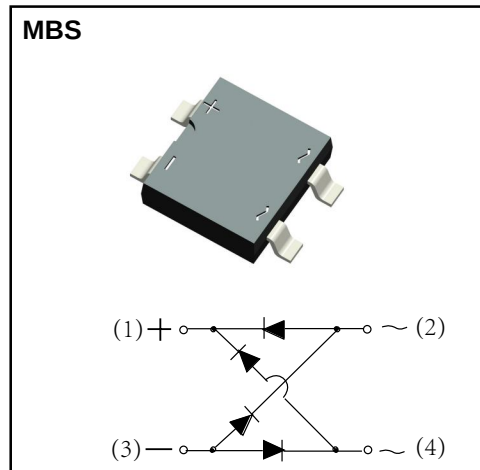
Single Phase 1.0Amp Schottky Bridge Rectifiers

Features

- I_O 1A
- VRRM 20V-200V
- Low forward voltage drop
- High surge current capability
- Metal-Silicon junction chip

Mechanical Data

- Case: MBS molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- Polarity: As marked on case



Maximum Ratings And Electrical Characteristics

Parameter	SYMBOLS	MB 12S	MB 14S	MB 16S	MB 18S	MB 110S	MB 115S	MB 120S	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	40	60	80	100	150	200	V
Maximum average forward rectified current at T _L =100°C On glass-epoxy P.C.B (Note 1)	I _(AV)	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30.0							A
Rating for fusing (t=8.3ms, Ta=25°C)	I ² _t	3.7							A ² _s
Maximum instantaneous forward voltage at 1.0A	V _F	0.55		0.7	0.85		0.95		V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	0.5 50			0.2 20			mA	
Typical thermal resistance	R _{qJA}	85.0							°C/W
Operating junction temperature range	T _J	-55 to +125			-55 to +150				°C
Storage temperature range	T _{STG}	-55 to +150							°C

Note:1. Mounted on glass epoxy PC board with 1.3*1.3mm solder pad

Typical Characteristics

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

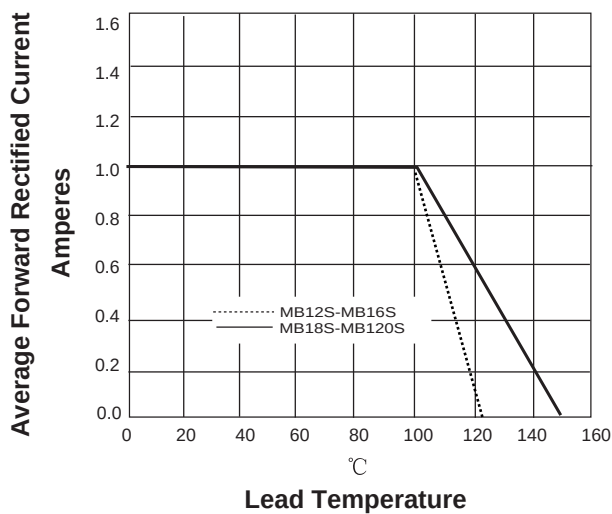


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

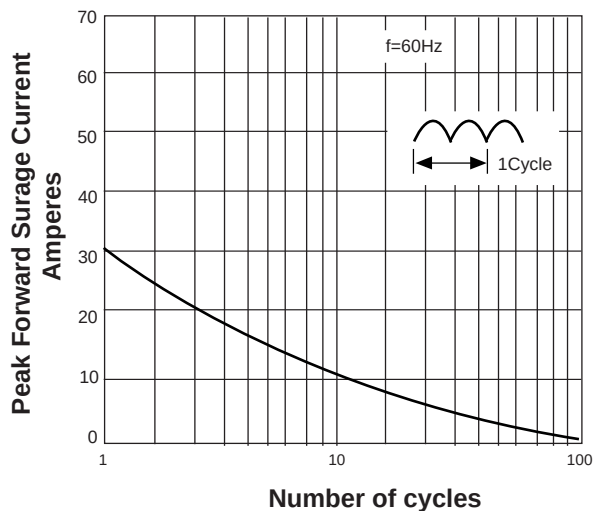


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

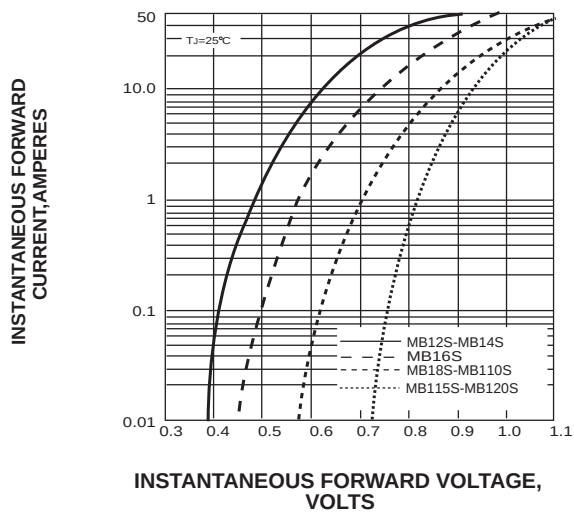
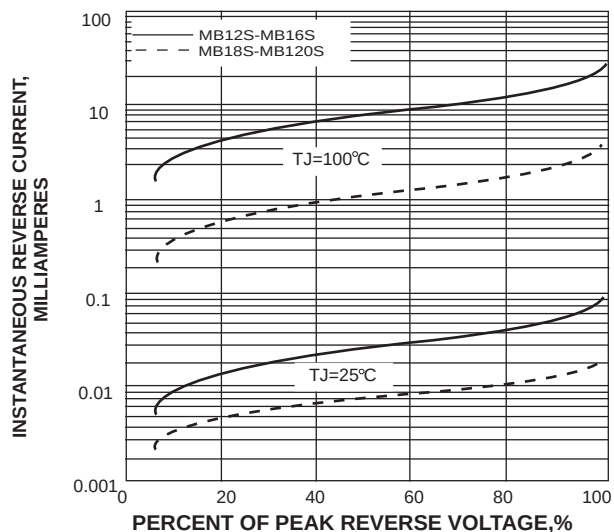
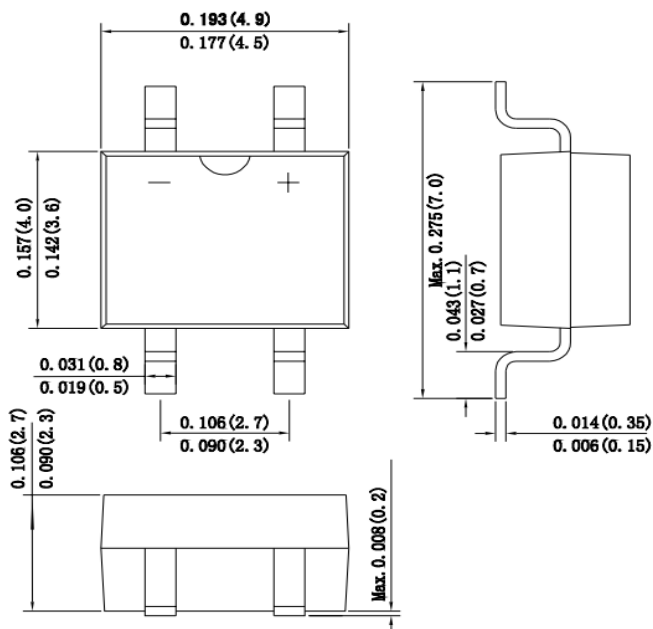


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

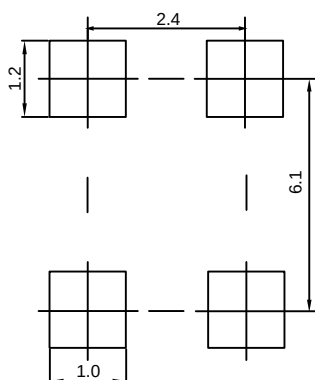


MBS Package Outline Dimensions



Dimensions in inches and (millimeters)

MBS Suggested Pad Layout



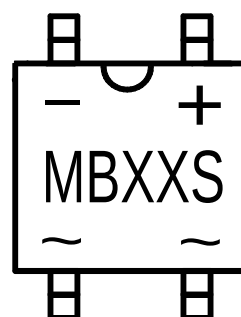
Note:

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

Ordering Information

Part Number	Package	Shipping Quantity
MB12S-MB120S	MBS	3000/tape&Reel

Marking Diagram



XX: From 12 To 120

Reel Taping Specifications For Surface Mount Devices–MBS

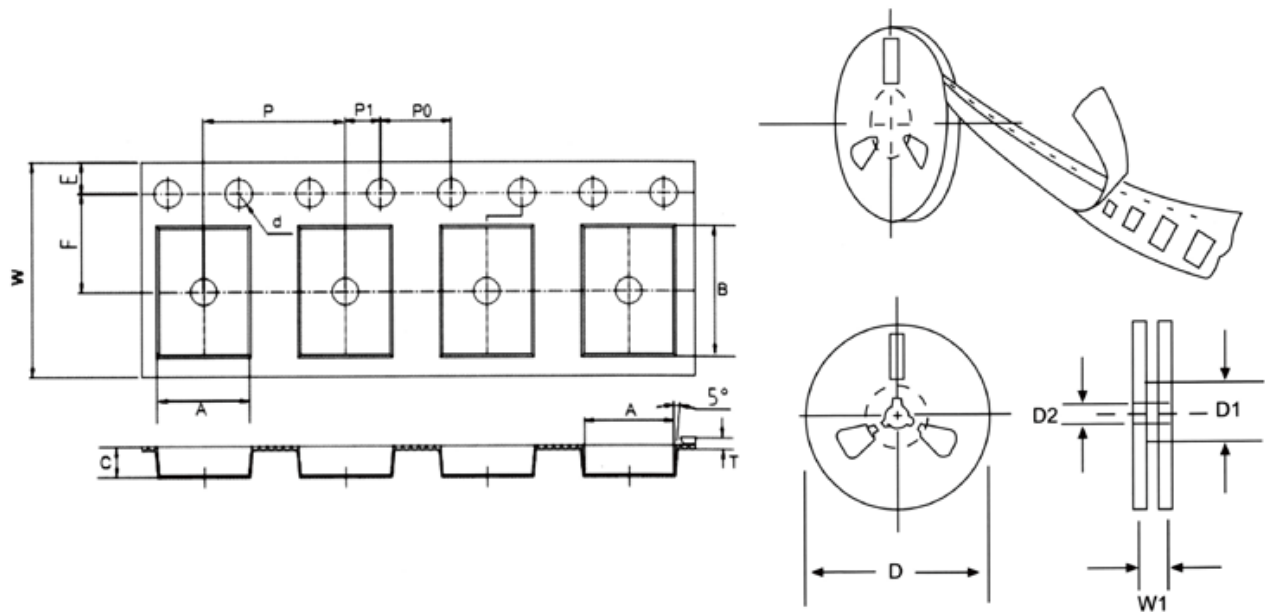


FIG: CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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)
Stroket 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.