

1A SURFACE MOUNT SCHOTTKY BRIDGE

RECTIFIER Reverse Voltage - 40 to 200 V

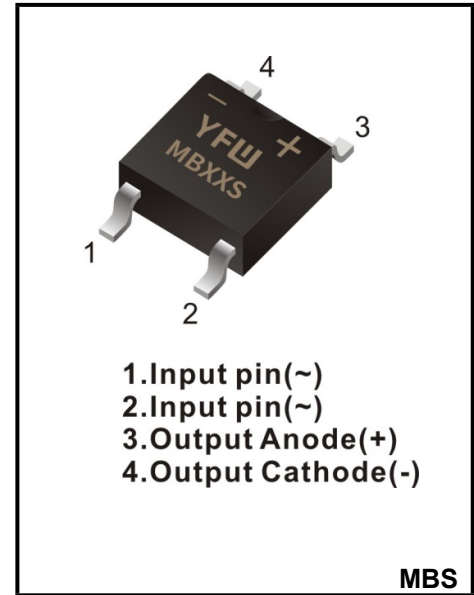
Forward Current - 1A

FEATURES

- ◆High current capability
- ◆Low forward voltage drop
- ◆Low power loss, high efficiency
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: MBS
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 100mg /0.0035oz



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MB14S	MB16S	MB18S	MB110S	MB115S	MB120S	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	80	100	150	200	V
Average Rectified Output Current	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method)	I_{FSM}	40		30				A
Max Instantaneous Forward Voltage at 1 A	V_F	0.55	0.70	0.85		0.90		V
Maximum DC Reverse Current @ $T_A=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_A=100^{\circ}C$	I_R	0.3 10		0.2 5		0.1 2		μA
Typical Junction Capacitance ^(Note1)	C_j	110	80					pF
Typical Thermal Resistance ^(Note2)	$R_{\theta JA}$	100						$^{\circ}C/W$
Operating and Storage Temperature Range	T_j	-55 ~ +150						$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 ~ +150						$^{\circ}C$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

Fig.1 Forward Current Derating Curve

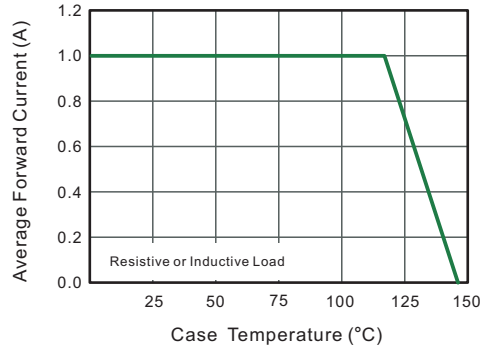


Fig.2 Typical Reverse Characteristics

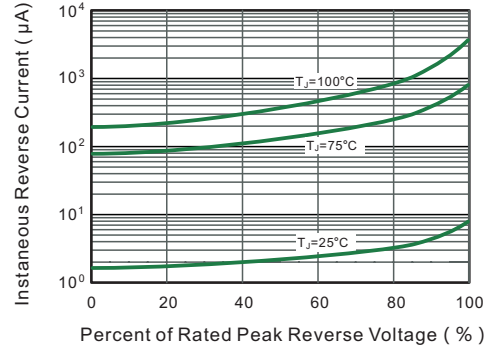


Fig.4 Typical Junction Capacitance

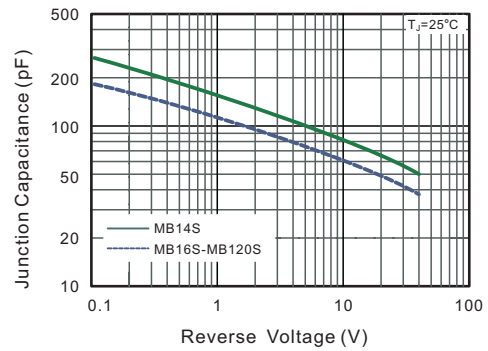


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

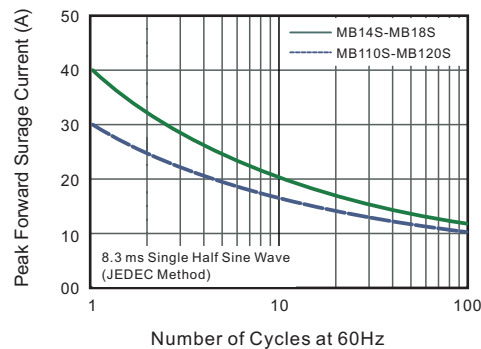
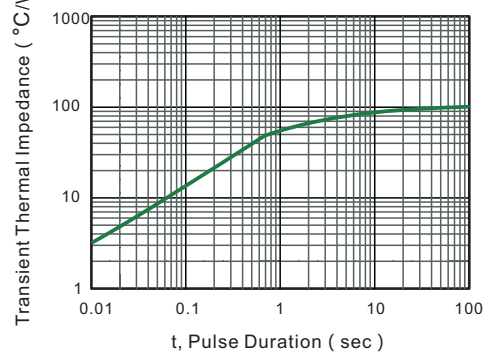
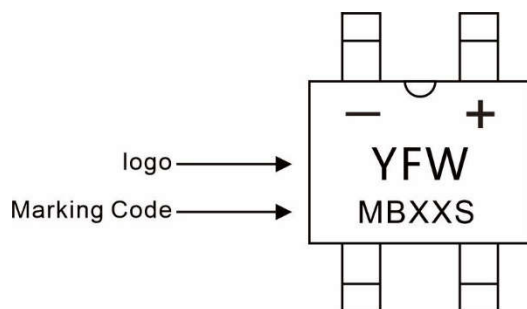


Fig.6- Typical Transient Thermal Impedance



Marking Diagram



Ordering information

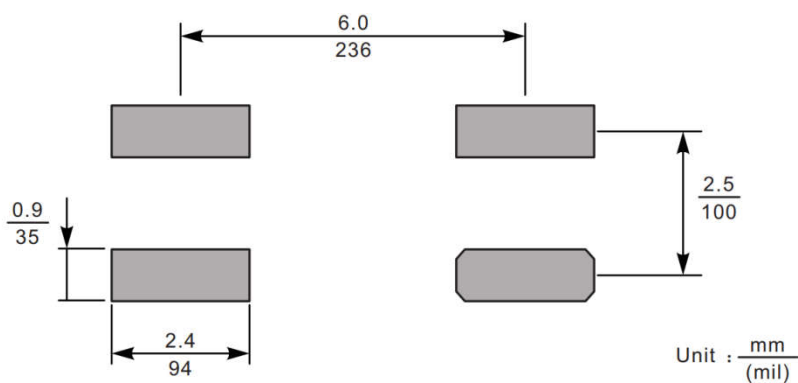
Package	Packing Description	Packing Quantity
MBS	Tape/Reel, 13" reel	3000PCS/Reel 30000PCS/Carton

Package Dimensions

MBS

Dim.	Millimeter(mm)		(mil)	
	Min.	Max.	Min.	Max.
A	2.2	2.6	94	102
C	0.15	0.22	5.9	8.7
D	4.5	5.0	177	197
E	3.6	4.1	142	161
HE	6.4	7.0	252	276
d	2.3	2.7	91	106
e	0.5	0.7	20	28
L	1.3	1.7	51	67
L1	0.5	1.1	20	43
a	/	0.2	/	8
∠	7°			

The recommended mounting pad size



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