

MB2S THRU MB10S

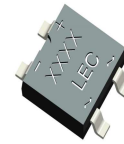


Glass Passivated Bridge Rectifiers

Reverse Voltage: 50 to 1000 Volts

Forward Current: 1.0 Ampere

RoHS Device



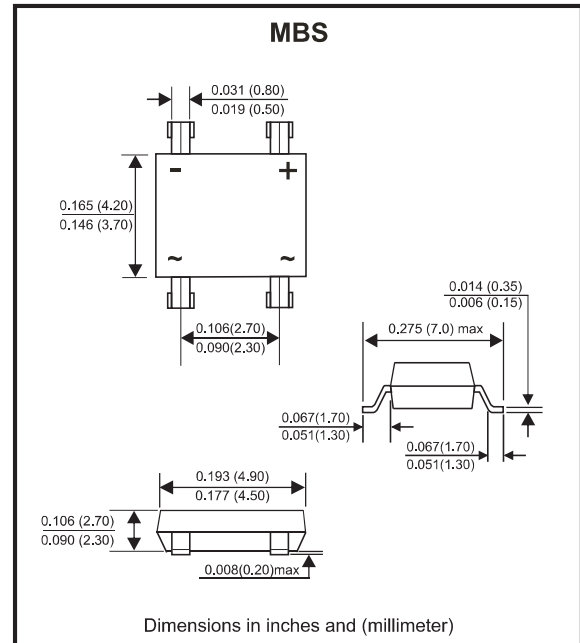
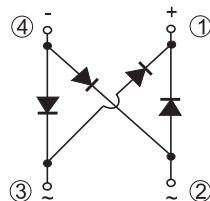
Features

- Glass passivated chip
- Ideal for automatic placement
- High surge forward current capability
- Reliable low cost construction utilizing molded plastic technique
- Lead tin plated copper
- Meet UL flammability classification 94V-0

Mechanical data

- Polarity: Symbol marked on body
- Mounting position: Any

Circuit Diagram



Maximum Rating And Electrical Characteristics

Rating at $T_A=25^{\circ}\text{C}$, unless otherwise noted.

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

Parameter	Symbol	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	200	400	600	800	1000	V
Maximum Average Forward Rectified Current (Note 1) @T _A =125°C	I _(AV)	1.0					A
Peak Forward Surge Current, 8.3mS single half sine-wave, superimposed on rated load (JEDEC Method)	I _{FSM}	35					A
Peak Forward Voltage at 1.0A DC	V _F	1.0					V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =125°C	I _R	5.0 40					μA
Typical Junction Capacitance per element (Note 2)	C _J	13					pF
Typical thermal resistance (Note 2)	R _{θJA}	80					°C/W
	R _{θJC}	25					
Operating Temperature Range	T _J	-55 to +150					°C
Storage Temperature Range	T _{STG}	-55 to +150					°C

Notes: 1. Mounted on P.C. Board.

2. Measured at 1.0MHz and applied reverse voltage of 4V DC.

Company reserves the right to improve product design, functions and reliability without notice.

Rev:1.0

Rating and Characteristic Curves

Fig.1 - Forward Current Derating Curve

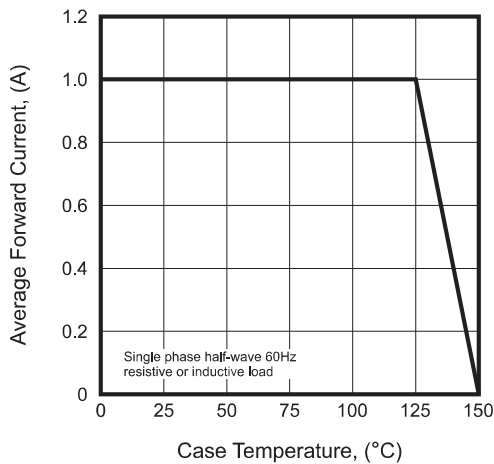


Fig.2 - Maximum Non-Repetitive Surge Current

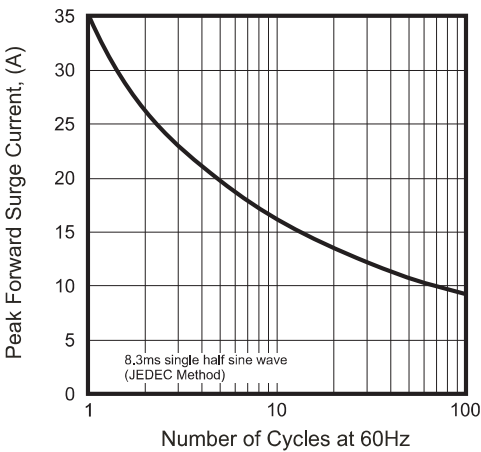


Fig.3 - Typical Reverse Characteristics

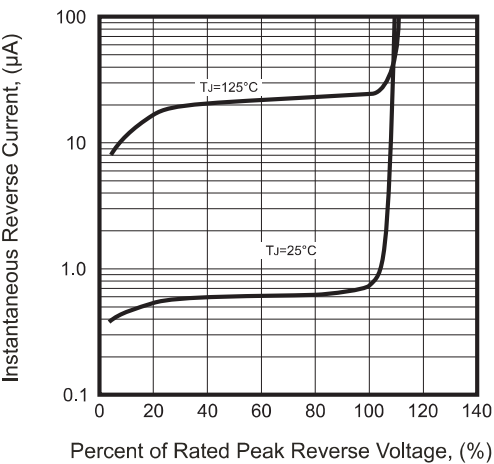


Fig.4 - Typical Forward Characteristics

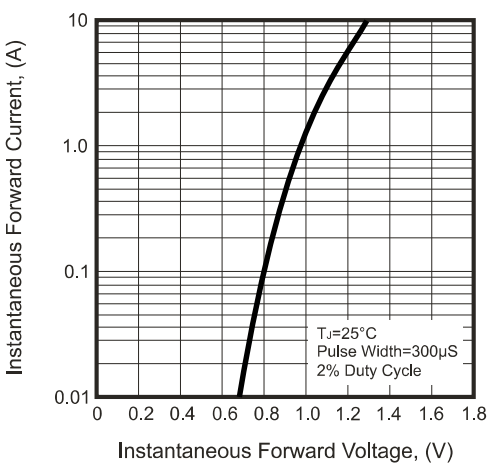
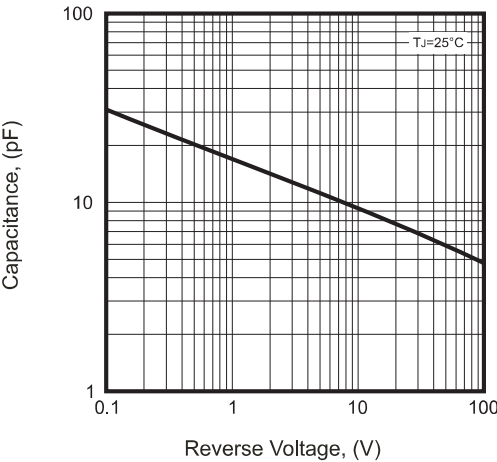
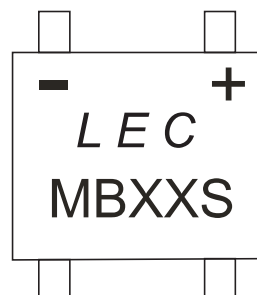


Fig.5 - Typical Junction Capacitance



Marking Code

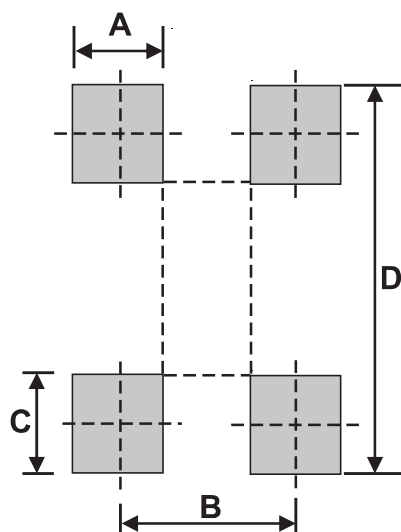
Part Number	Marking code
MB2S	MB2S
MB4S	MB4S
MB6S	MB6S
MB8S	MB8S
MB10S	MB10S



LEC = Longmacro Logo
X/XX = Product type marking code

Suggested PAD Layout

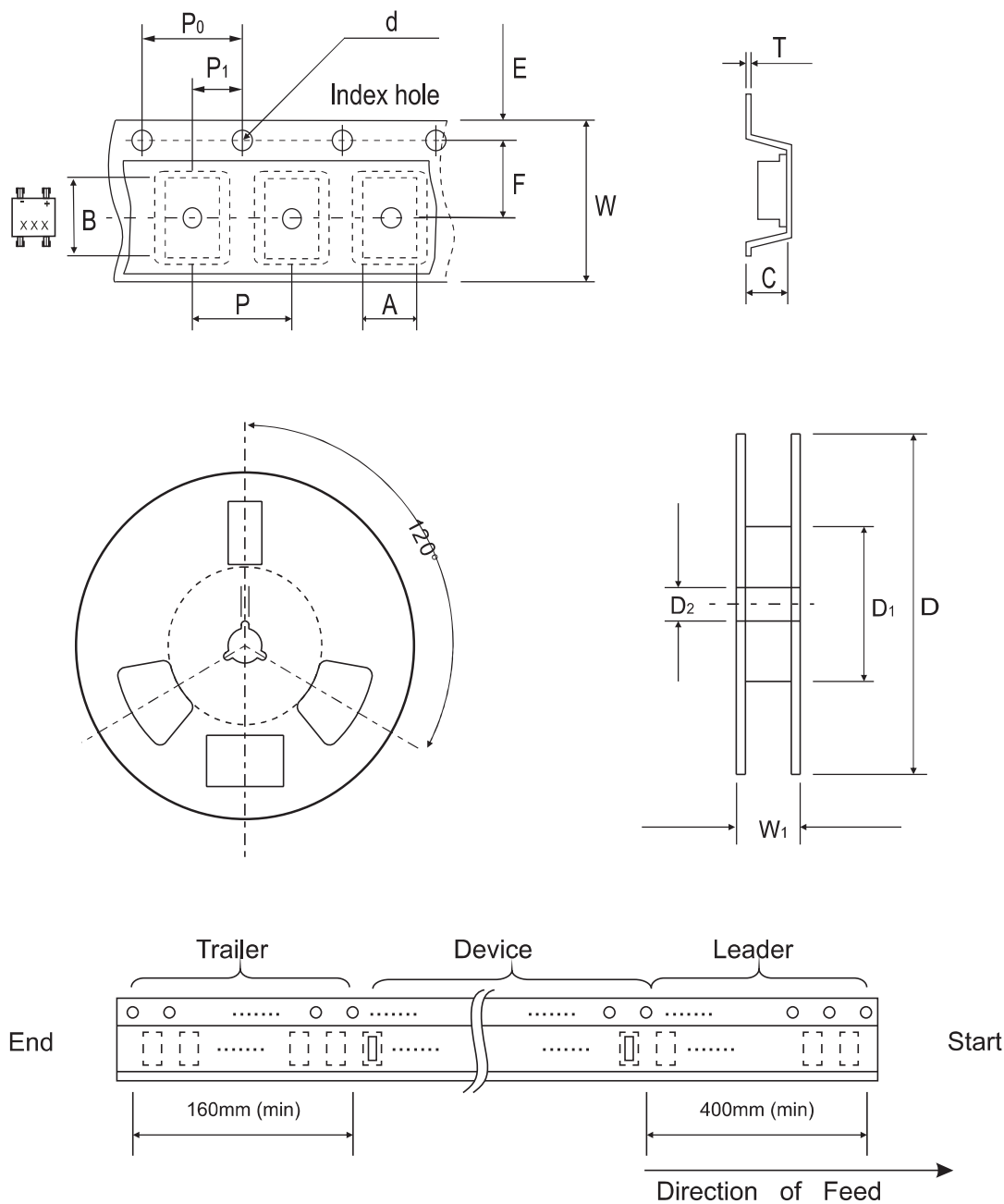
SIZE	MBS	
	(mm)	(inch)
A	0.82MIN	0.032MIN
B	2.55REF	0.100REF
C	0.92MIN	0.036MIN
D	7.00MAX	0.276MAX



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
MBS	3,000	13

Reel Taping Specification



MBS	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	4.90 ± 0.10	7.24 ± 0.10	3.33 ± 0.10	1.55 ± 0.05	330	50.0 MIN.	13.00 ± 0.20
	(inch)	0.193 ± 0.004	0.285 ± 0.004	0.131 ± 0.004	0.061 ± 0.002	13	1.969 MIN.	0.512 ± 0.008

MBS	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.30	12.00 ± 0.30	12.00~14.40
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.012	0.472 ± 0.012	0.472~0.657