

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Low forward voltage drop, High current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

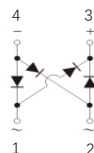
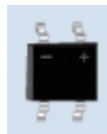
MECHANICAL DATA

- Case: MBS molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, method 2026
- Mounting Position: Any
- Weight: 0.0044ounce, 0.125 gram (approximately)

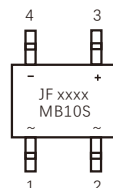
TYPICAL APPLICATIONS

Used in AC/DC bridge full wave rectification for SMPS, lighting ballast, adapter, charger, home appliances, office equipment, and telecommunication applications.

MBS



Internal Schematic



Pin Diagram

Marking
JF: Logo
XXXX: Data code
MB10S: Type

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.)

Parameters		Symbols	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	Units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current On glass-epoxy On AL substrate		$I_{(AV)}$	0.8 1.0						Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	35						Amps
Maximum Instantaneous Forward Voltage at 1.0 A DC		V_F	1.0						Volts
Rating for fusing (t=8.3ms)		I^2t	5.0						A ² S
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	I_R	5						μA
	T _A =125°C		100						
Typical junction capacitance(Note3)		C_j	7.3						PF
Typical thermal resistance		R _{θJA} (Note1) R _{θJA} (Note2) R _{θJB}	85 70 20						°C/W
Operating junction and storage temperature range		T _j T _{STG}	-55 to +150						°C

Note: 1. On glass epoxy P.C.B. mounted on 0.05" x 0.05" (1.3mm x 1.3mm) pads.

2. On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20mm x 20mm) mounted on 0.05" x 0.05" (1.3mm x 1.3mm) solder pads

3. Measured at 1MHz and applied reverse voltage of 4.0 Volts.

FIG.1-TYPICAL FORWARD CURRENT VS LEAD TEMPERATURE DERATING CURVE

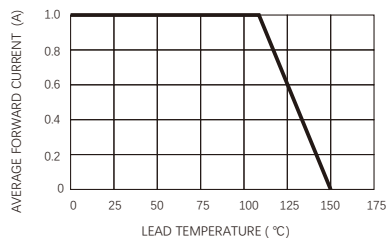


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

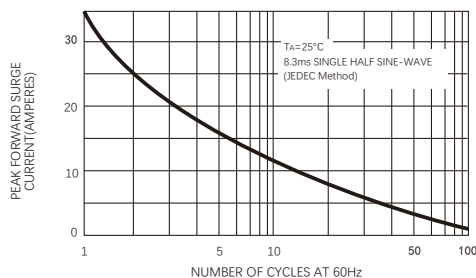


FIG.3-TYPICAL FORWARD CURRENT VS AMBIENT TEMPERATURE DERATING CURVE

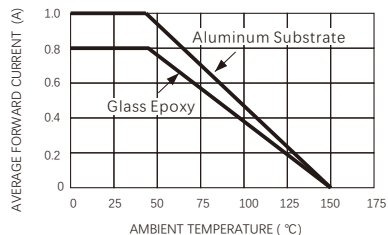


FIG.4-TYPICAL FORWARD CHARACTERISTICS

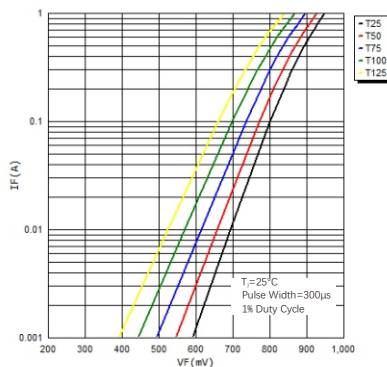


FIG.5-TYPICAL REVERSE CHARACTERISTICS

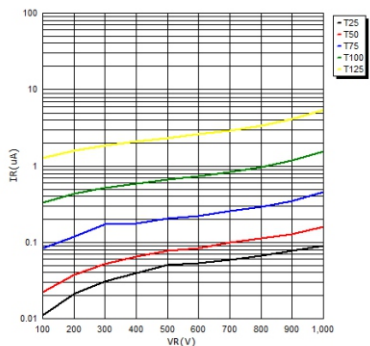
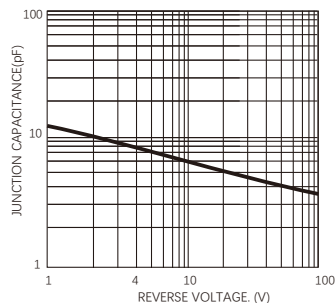


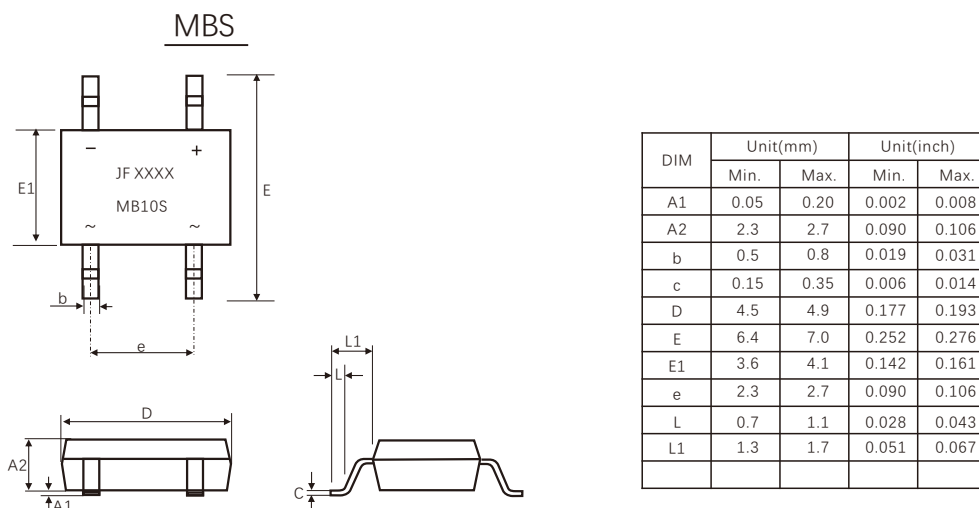
FIG.6-TYPICAL JUNCTION CAPACITANCE



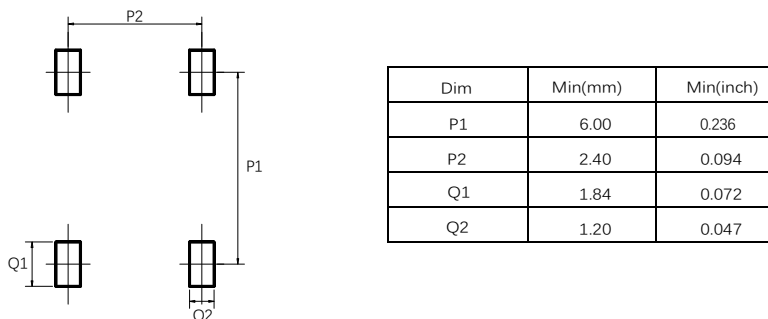
AVAILABLE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Box Size L x W x H (mm)	Quantity (Reel/box)	Carton Size L x W x H (mm)	Quantity (Box/carton)	Quantity (Kpcs/carton)
MB1S-MB10S-MBS	T/R	Φ330	3000	330x35x333	2	364×364×860	8	48

PACKAGE OUTLINE DIMENSIONS



Suggested PAD Layout



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