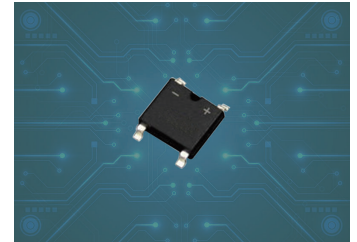


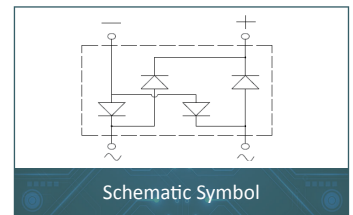
## 1. FEATURES

- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C



## 2. TYPICAL APPLICATIONS

- General purpose use in AC/DC bridge full wave rectification for power supply, lighting ballast, battery charger, home appliances, office equipment, and telecommunication applications.



## 3. MECHANICAL DATA

- Package: MBS  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: As marked on body

## 4. MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

Parameter	Symbol	MB1SA	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA	Unit
Device marking code		MB1SA	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA	
Repetitive peak reverse voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
RMS Bridge input Voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
DC Reverse Voltage	V <sub>DC</sub>	100	200	400	600	800	1000	V
Average rectified output current @60Hz sine wave, R-load, T <sub>a</sub> =40°C	On alumina substrate	1.0						A
	On glass-epoxi substrate	0.8						A
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, T <sub>j</sub> =25 °C	I <sub>FSM</sub>	35						A
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25 °C, rating of per diode	I <sup>2</sup> t	5.1						A <sup>2</sup> S
Storage temperature	T <sub>stg</sub>	-55 ~+150						°C
Junction temperature	T <sub>j</sub>	-55 ~+150						°C



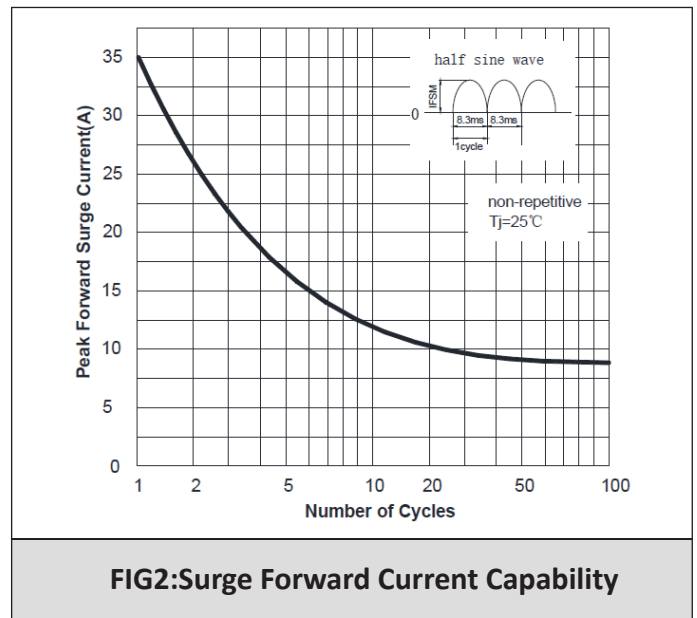
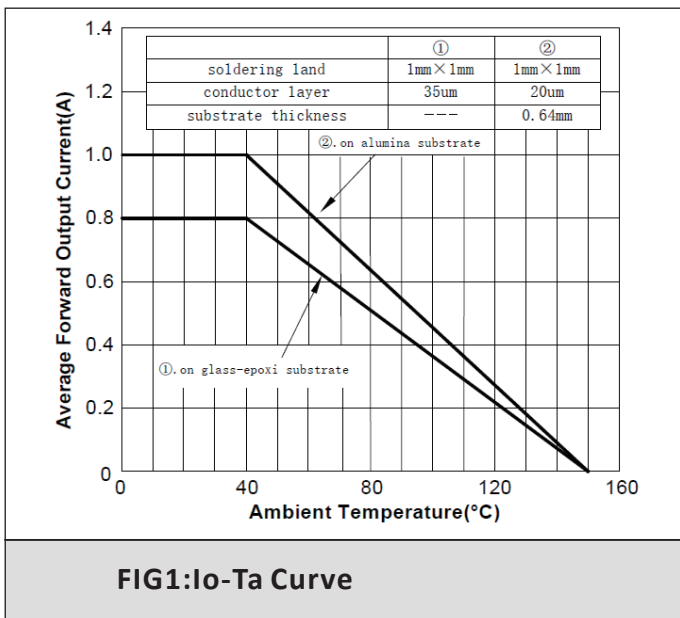
## 5. ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

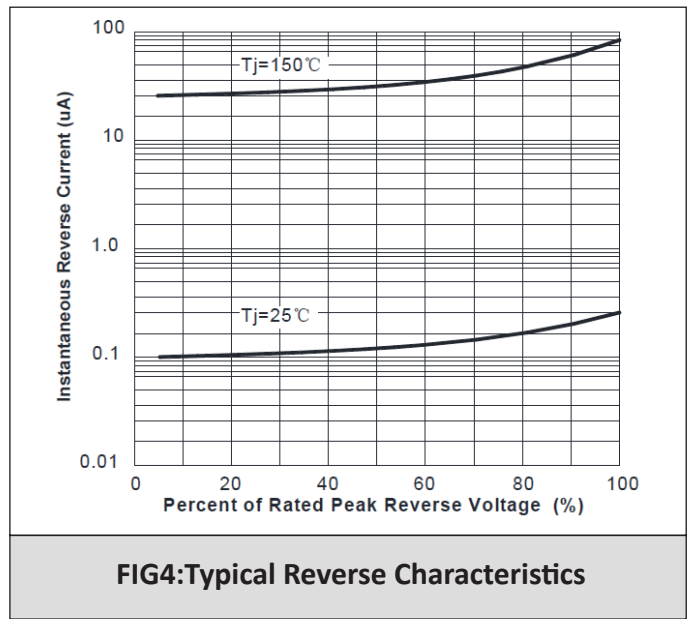
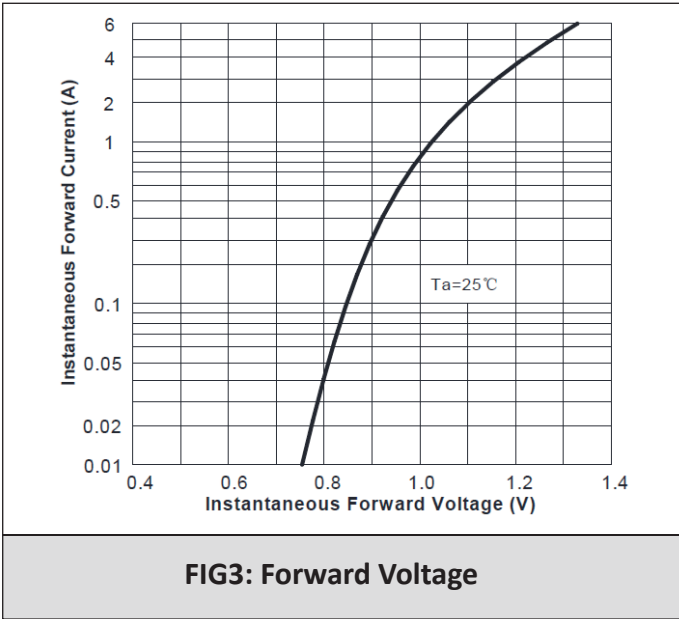
Parameter	Symbol	TEST CONDITIONS	MB1SA	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA	Unit
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	I <sub>FM</sub> =0.5A	1.00						V
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	V <sub>RM</sub> =V <sub>RRM</sub>	5.0						μA

## 6. THERMAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

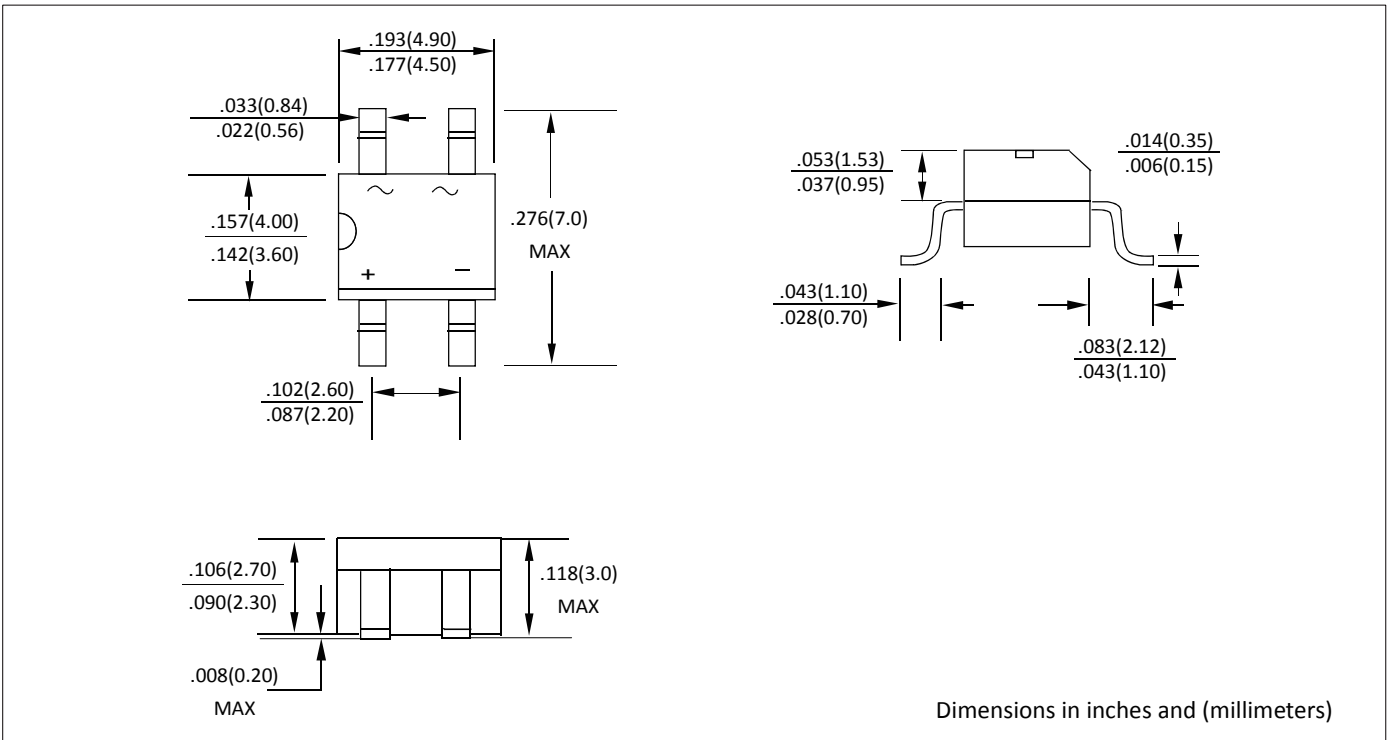
Parameter		SYMBOL	MB1SA	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA	Unit
Thermal Resistance	Between junction and ambient, On alumina substrate	R <sub>θJ-A</sub>	76.0						°C/W
	Between junction and ambient, On glass-epoxi substrate	R <sub>θJ-A</sub>	134.0						°C/W
	Between junction and lead	R <sub>θJ-L</sub>	20.0						°C/W

## 7. CHARACTERISTIC CURVES





## 8. MBS PACKAGE INFORMATION



## 9. ORDERING INFORMATION

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MB1SA-MB10SA	F1	Approximate 0.12	2500	5000	40000	13' reel
MB1SA-MB10SA	F2	Approximate 0.12	3000	6000	48000	13' reel



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