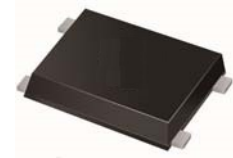


Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High temperature soldering guaranteed:
260°C/10 seconds



Mechanical Data

- Case: Molded plastic body RoHS-compliant
- Molding compound meets UL 94 V-0 flammability rating
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Polarity indicator: As marked on body

Maximum Ratings (@T_A = 25°C unless otherwise specified)

Characteristic	Symbol	MSB1015	MSB1016	MSB1018	MSB1020	Units
Peak repetitive reverse voltage	V _{RRM}	1500	1600	1800	2000	V
RMS reverse voltage	V _{RMS}	1050	1120	1260	1400	V
DC blocking voltage	V _{DC}	1500	1600	1800	2000	V
Maximum average forward output current	I _{F(AV)}	1.0				A
Peak forward surge current, 8.3ms single half-sine-wave @T _J = 25°C	I _{FSM}	30				A
I ² t Rating for fusing @T _J = 25°C	I ² t	3.7				A ² s

Thermal Characteristics

Parameter	Symbol	MSB1015	MSB1016	MSB1018	MSB1020	Units
Typical thermal resistance per leg (Note 1)	R _{θJA}	50				°C/W
	R _{θJC}	10				
Operating junction temperature range	T _J	- 55 ---- + 150				°C
Storage temperature range	T _{STG}	- 55 ---- + 150				°C

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Typ.	Max.	Units
Maximum instantaneous forward voltage	V _F	I = 1.0A Per Diode	--	1.3	V
Maximum Reverse current	I _R	Rated V _R , @T _A =25°C	--	10	μ A
		Per Diode @T _A =125°C	--	150	

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1-Forward Current Derating Curve

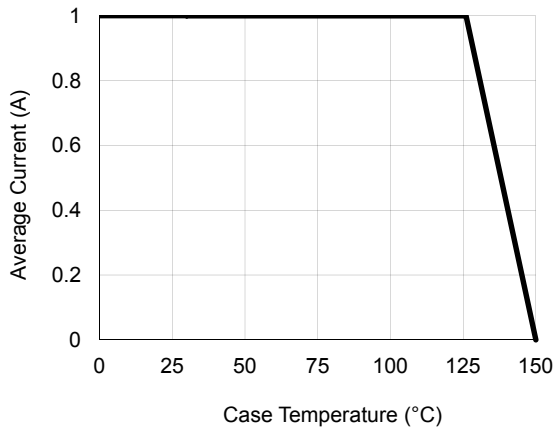


Fig.2- Surge Current Derating Curve

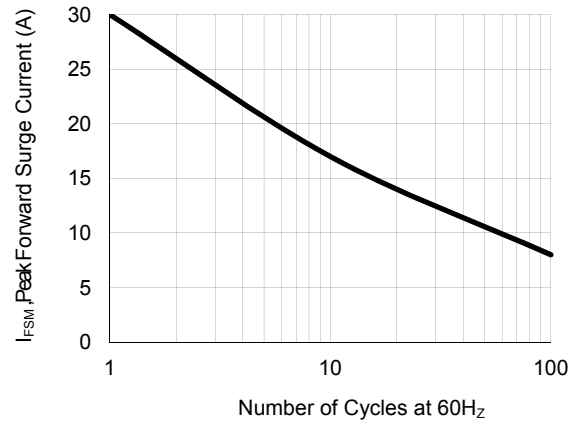


Fig.3- Typical Forward Voltage Characteristic

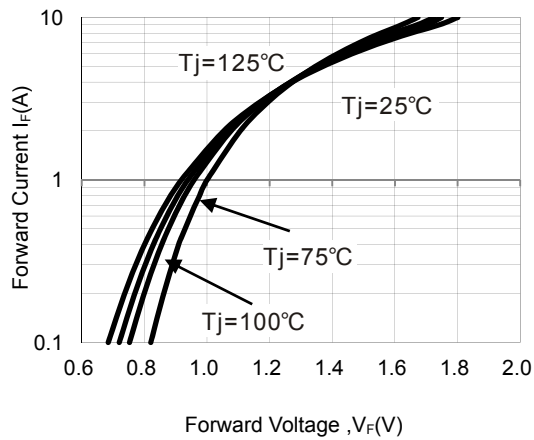
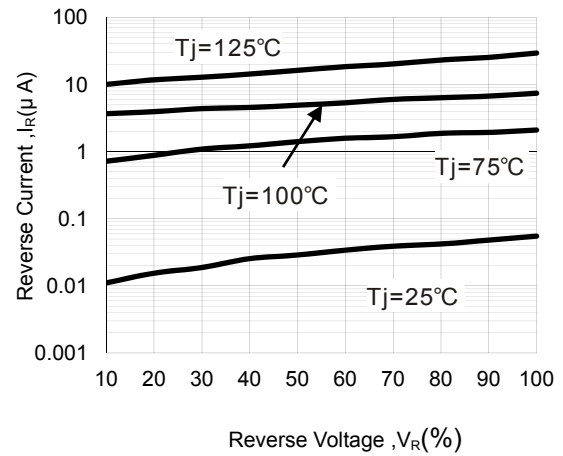
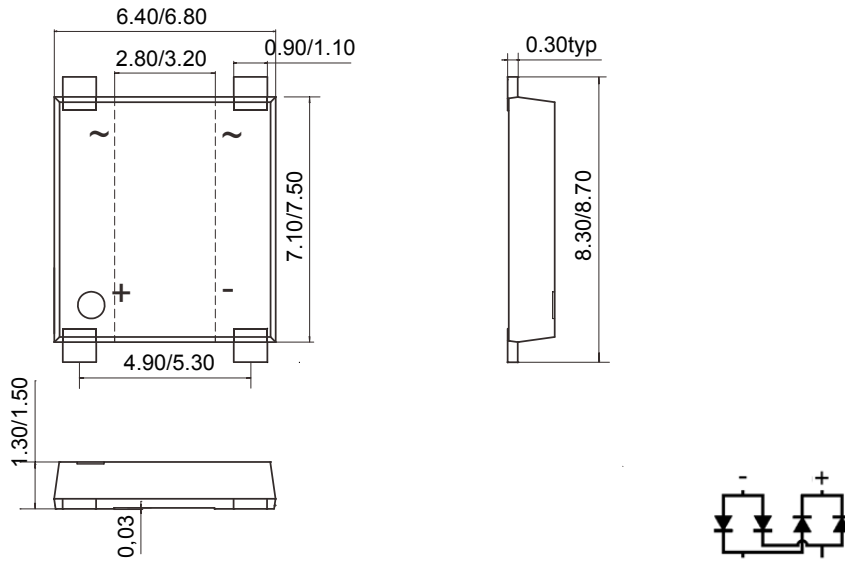


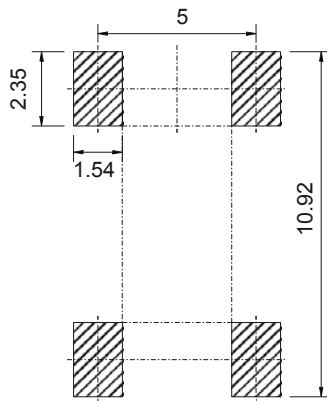
Fig.4- Typical Reverse Characteristic



Package Outline Dimensions(unit:mm)



Mounting Pad Layout(unit:mm)



Ordering Information

Part No.	Marking	Package	Shipping
MSB1015	MSB1015	MSB	3000/Tape&Reel
MSB1016	MSB1016	MSB	3000/Tape&Reel
MSB1018	MSB1018	MSB	3000/Tape&Reel
MSB1020	MSB1020	MSB	3000/Tape&Reel