



Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High-temp soldering guaranteed: 260°C @ 10s.
- RoHS compliant with Halogen-free

MBS



Mechanical Data

- Case: MBS molded plastic
- 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)

Parameter	Symbol	S125	S250	S380	S500	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	250	600	800	1000	V
Maximum alternating input Voltage	V _{RMS}	125	250	380	500	V
DC Blocking Voltage	V _{DC}	400	400	800	1000	V
Maximum Average Forward Output Current	I _{F_AV}	0.8				A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I _{FSM}	40				A
I ² t Rating for fusing	I ² t	6.64				A ² s

Thermal Characteristics

Parameter	Symbol	S125	S250	S380	S500	Unit
Typical Thermal Resistance per leg *1	R _{θJA}	73				°C/W
	R _{θJC}	29				
	R _{θJL}	25				
Operating Junction Temperature Range	T _J	-55 ~ +150				°C
Storage Temperature Range	T _{STG}	-55 ~ +150				°C

Note *1: Device mounted on p.c.b. with 10 mm x 20 mm x 0.1mm copper pad area

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

Parameter	Symbol	Test Condition	Typ.	Max.	Unit	
Maximum Instantaneous Forward Voltage	V _F	I _F = 0.4A Per Diode	-	1.0	V	
Maximum Reverse Current	I _R	Rated V _R , Per Diode	@ T _A = 25°C	-	5.0	μA
			@ T _A = 125°C	-	100.0	



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

Fig.1 Forward Current Derating Curve

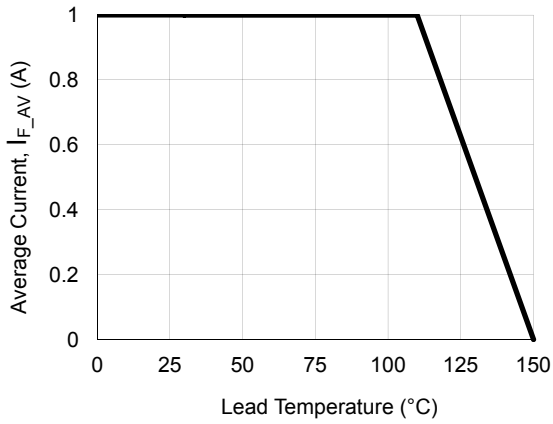


Fig.2 Surge Current Derating Curve

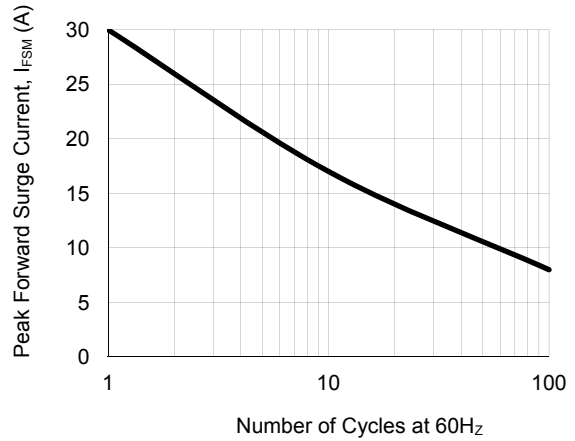


Fig.3 Typical Forward Voltage Characteristics

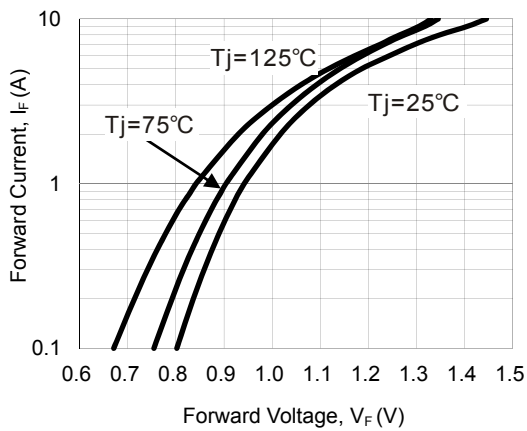
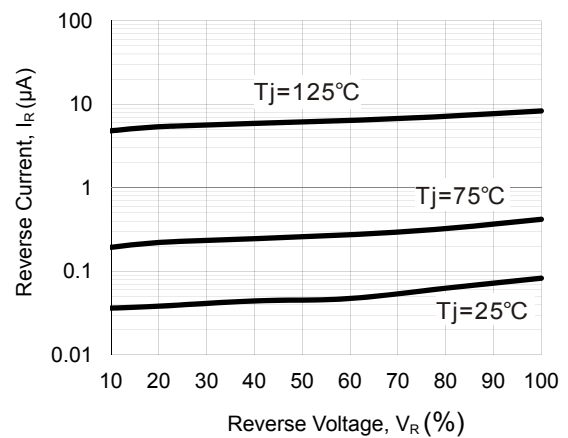
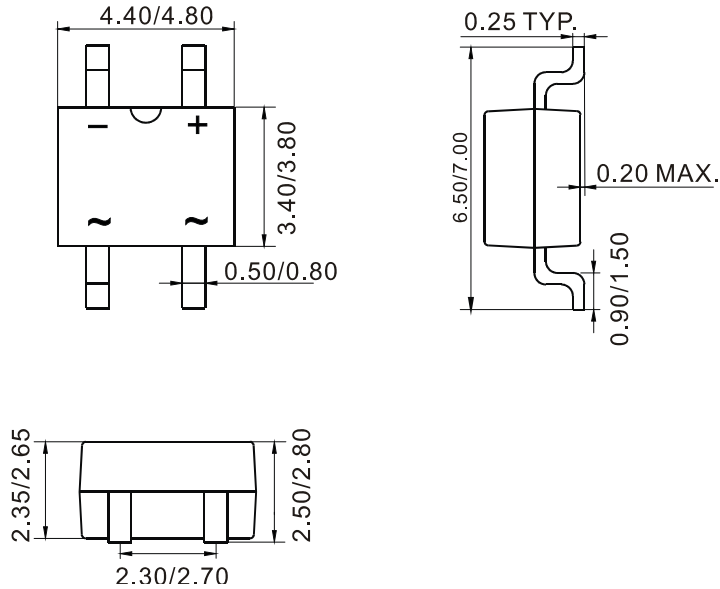


Fig.4 Typical Reverse Characteristics

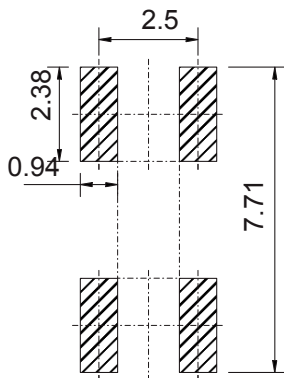




Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
S125	S125	MBS	3000 / Tape & Reel
S250	S250	MBS	3000 / Tape & Reel
S380	S380	MBS	3000 / Tape & Reel
S500	S500	MBS	3000 / Tape & Reel