

■ **Features**

- Glass passivated chip
- Low reverse leakage current
- High surge current capability
- Reliable low cost construction utilizing molded plastic technique

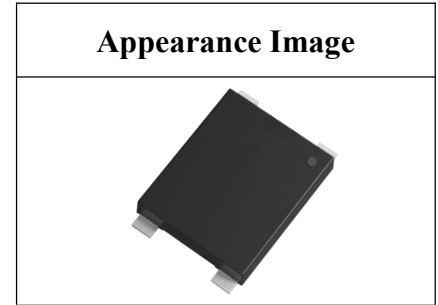
Reverse Voltage 50-1000 V
Forward Current 4.0 A max

■ **Applications**

- General purpose use in AC/DC bridge full wave rectification

■ **Mechanical Data**

- Case: MSB
- Polarity symbols being marked on body
- Molding compound meets UL 94V-0 flammability rating
- RoHS-compliant, Solder plated, solderable per MIL-STD-750, Method 2026



■ **Marking**

- MSB4(005~10)

■ **Maximum Ratings @ Ta = 25°C unless otherwise noted**

PARAMETER	SYMBOL	UNIT	MSB4005	MSB401	MSB402	MSB404	MSB406	MSB408	MSB410
Repetitive peak reverse voltage	V _{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS voltage	V _{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V _{DC}	V	50	100	200	400	600	800	1000
Maximum average output current@60Hz sine wave, resistance load	I _{F(AV)}	A	4.0						
Peak forward surge current 8.3 ms single half sine wave superimposed on rated load	I _{FSM}	A	100						
Peak forward surge current 1.0 ms single half sine wave superimposed on rated load		A	200						
Current squared time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	I ² t	A ² S	41.50						
Storage temperature	T _{stg}	°C	-55~+150						
Junction temperature	T _j	°C	-55~+150						

■ **Electrical Characteristics @ Ta = 25°C unless otherwise noted**

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	MSB4005	MSB401	MSB402	MSB404	MSB406	MSB408	MSB410
Maximum instantaneous forward voltage	I _F =2.0A	V _F	V	1.0						
Maximum DC reverse current at rated DC blocking voltage	V _R =V _{DC} , T _j =25°C	I _R	μA	5						
	V _R =V _{DC} , T _j =100°C	I _R		100						

■ **Characteristic Curve (Typical)**

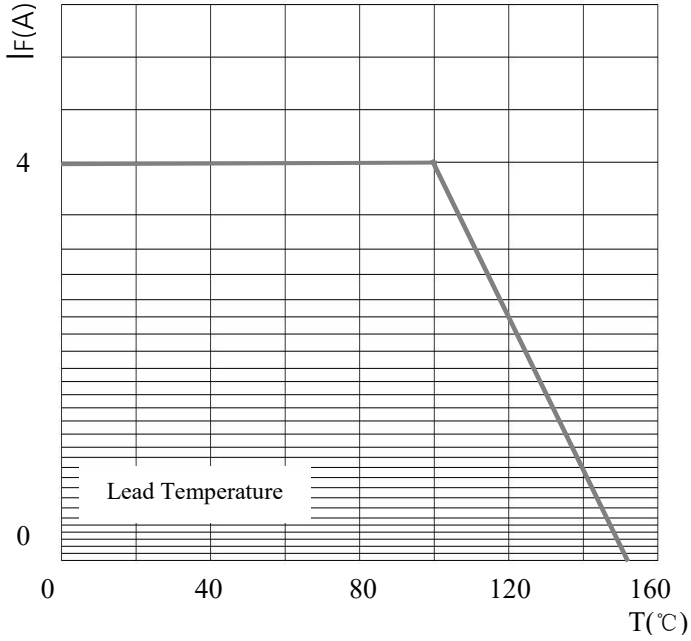


FIG1. Derating Curve For Output Rectified Current

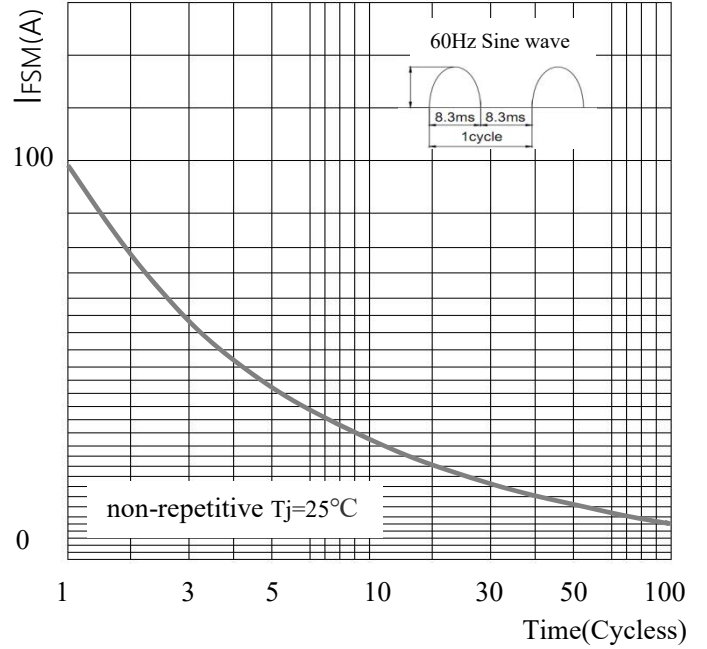


FIG2. Surge Forward Current Capability

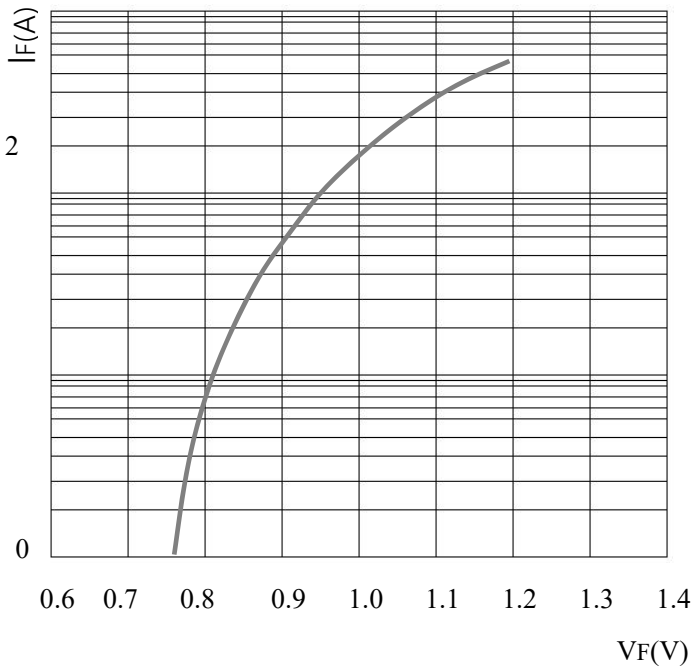


FIG3. Typical Forward Characteristics

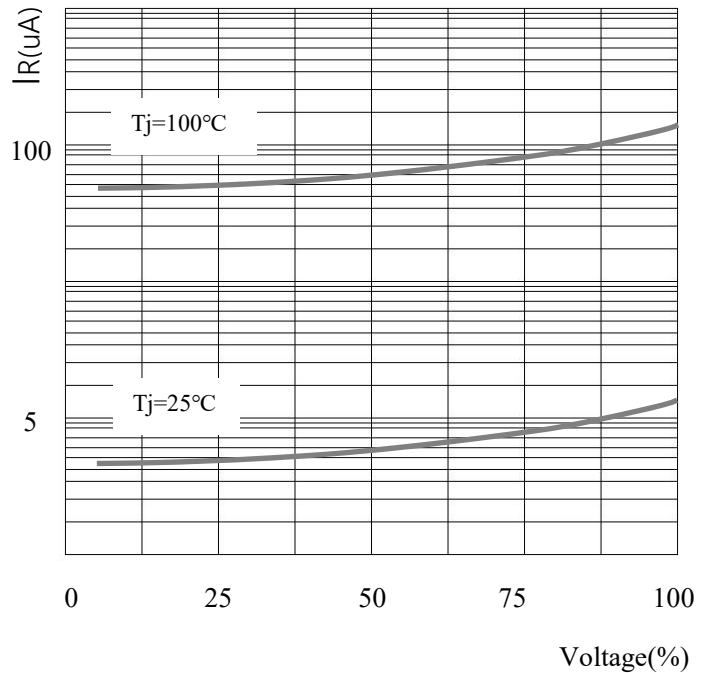


FIG4. Typical Reverse Characteristics

■ **Marking and packet information**



MB***: Product Type Code **TOS**: Brand Logo

Packaging information	
Reel	3000PCS
Carton	54000PCS
Reel Size	13"

■ **MSB Package outline dimensions**

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.3	1.5	0.051	0.059
C	0.17	0.29	0.007	0.012
D	6.2	7.0	0.244	0.276
E	7.1	7.6	0.280	0.299
E1	8.4	8.9	0.331	0.350
L	1.0	1.6	0.032	0.055
e	4.9	5.3	0.193	0.209
b	0.95	1.15	0.037	0.045
θ	10°			

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