

■ Features

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

■ 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



Reverse Voltage

50-1000 V

Forward Current

4.0 A max

Appearance Image



■ Marking

- MSB40(A~M)

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

PARAMETER	SYMBOL	UNIT	MSB40A	MSB40B	MSB40D	MSB40G	MSB40J	MSB40K	MSB40M
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	120						
Peak forward surge current 1.0 ms single half sine wave superimposed on rated load		A	240						
Current squared time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	I^2t	A²S	59.76						
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	MSB40A	MSB40B	MSB40D	MSB40G	MSB40J	MSB40K	MSB40M
Maximum instantaneous forward voltage	$I_F=2.0A$	V_F	V	1.0						
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}$, Tj=25°C	I_R	μA	5						
	$V_R=V_{DC}$, Tj=100°C	I_R		100						

■ Characteristic Curve (Typical)

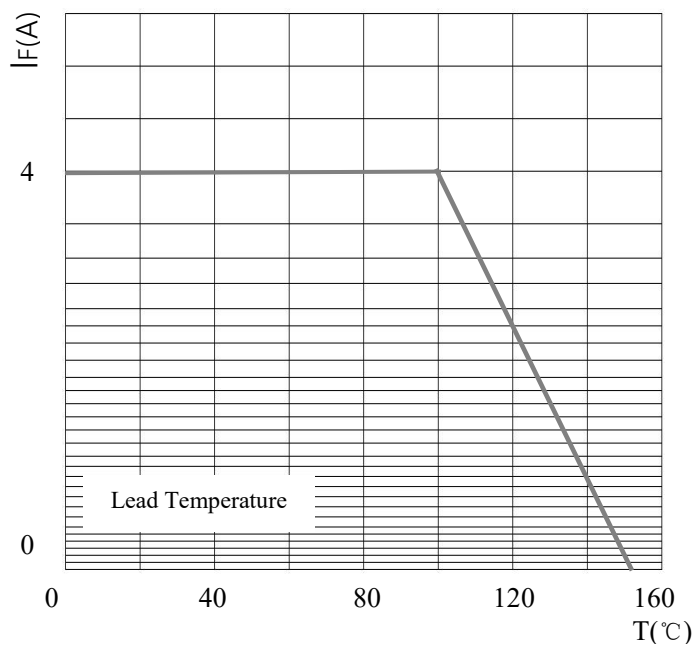


FIG1. Derating Curve For Output Rectified Current

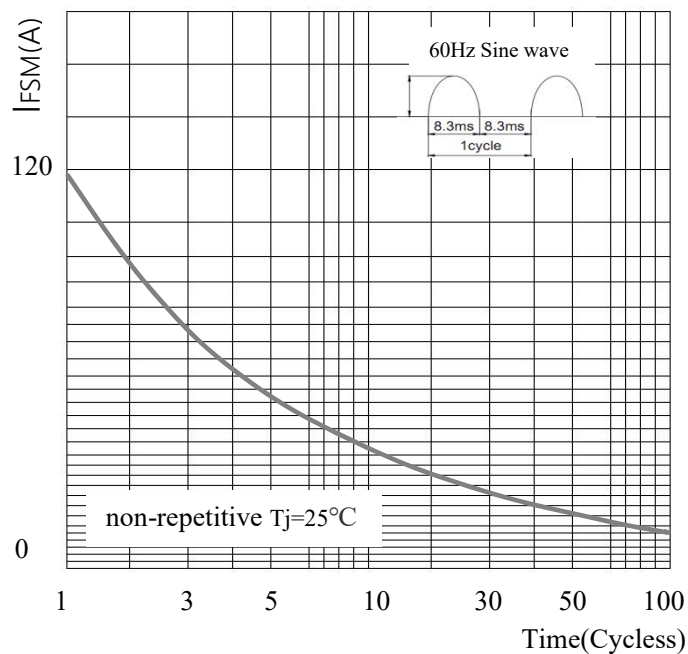


FIG2. Surge Forward Current Capability

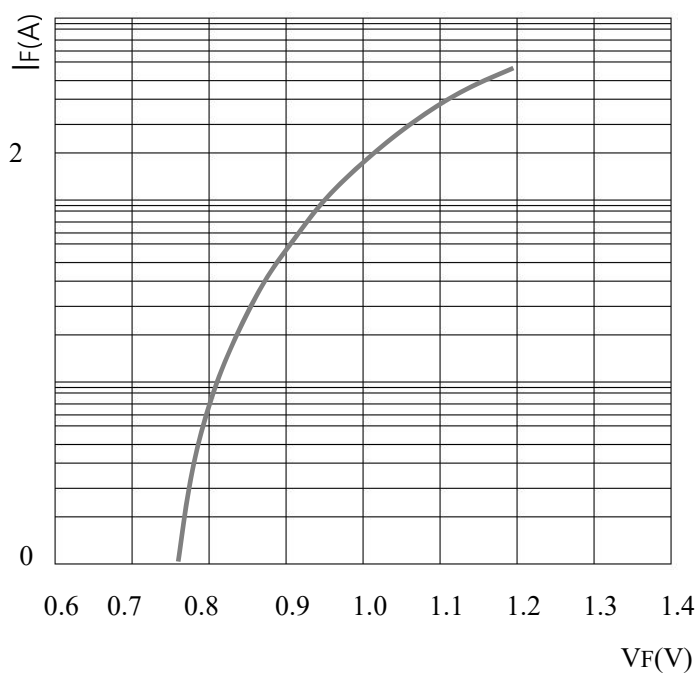


FIG3. Typical Forward Characteristics

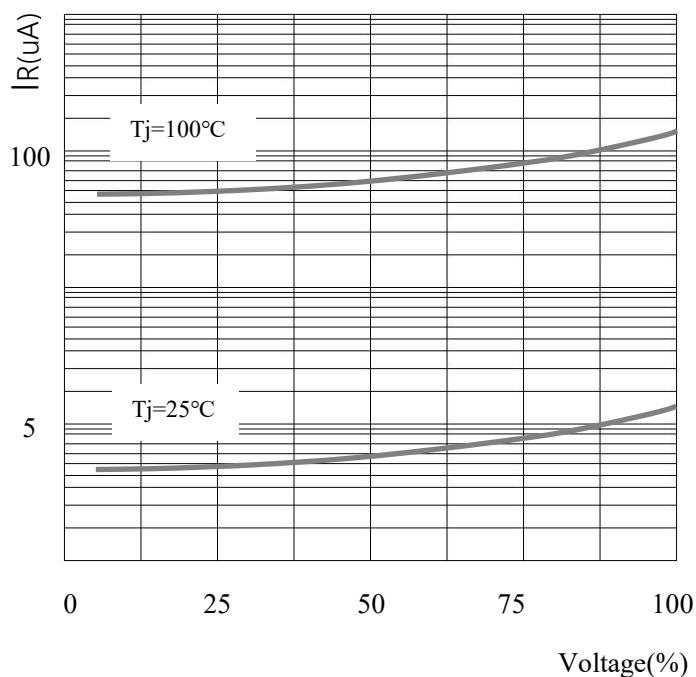


FIG4. Typical Reverse Characteristics

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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