# EMB1MN THRU EMB6MN

**SINGLE PHASE 0.5AMP SUPER FAST GLASS PASSIVATED BRIDGE RECTIFIER**

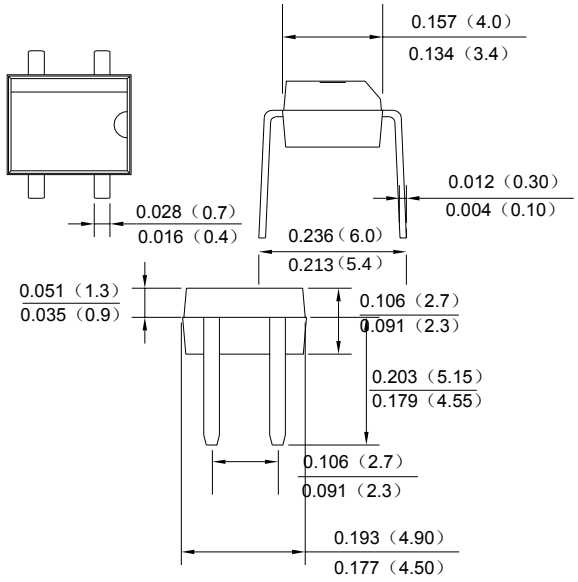
## Features

- Glass Passivated Die Construction
- Low leakage
- Ideal for printed circuit board
- Surge overload rating-25A peak
- Designed for Surface Mount Application
- Plastic Material-UL Flammability 94V-0

## Mechanical Data

- Case:Reliable low cost construction utilizing molded plastic technique
- Terminals:Plated Leads Solderable per MIL-STD-202,Method208
- Polarity:As Marked on Case
- Mounting Position:Any
- Marking:Type Number

## MBM




Dimiensions in inches and （milimeters）

## Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| TYPE NUMBER | SYMBOL | EMB1MN | EMB2MN | EMB4MN | EMB6MN | UNITS |
|---|---|---|---|---|---|---|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_{DC}$ | 100 | 200 | 400 | 600 | V |
| RMS Reverse Voltage | $V_{RMS}$ | 70 | 140 | 280 | 420 | V |
| Average Rectified Output Current (Note 1)@$T_A$=40℃ | $I_O$ | 0.5 | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 25 | | | | A |
| Forward Voltage per element @IF=0.5A | $V_{FM}$ | 0.95 | | 1.25 | 1.75 | V |
| Peak Reverse Current @$T_A$=25℃<br>At Rated DC Blocking Voltage @$T_A$=125℃ | $I_R$ | 5.0<br>500 | | | | uA |
| Maximum reverse recovery time (Note 3) | $T_{RR}$ | 35 | | | | ns |
| Typical Junction Capacitance per leg | $C_J$ | 13 | | | | pF |
| Typical Thermal Resistance per leg (Note 4) | $R_{\theta JA}$<br>$R_{\theta JL}$ | 70<br>20 | | | | ℃/W |
| Operating and Storage Temperature Range | $T_J$,$T_{STG}$ | -55to+150 | | | | ℃ |

Note:1. Mounted on glass epoxy PC board with 1.3mm$^2$ solder pad.
2. Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Irr=0.25A.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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Fig. 1 Output Current Derating Curve

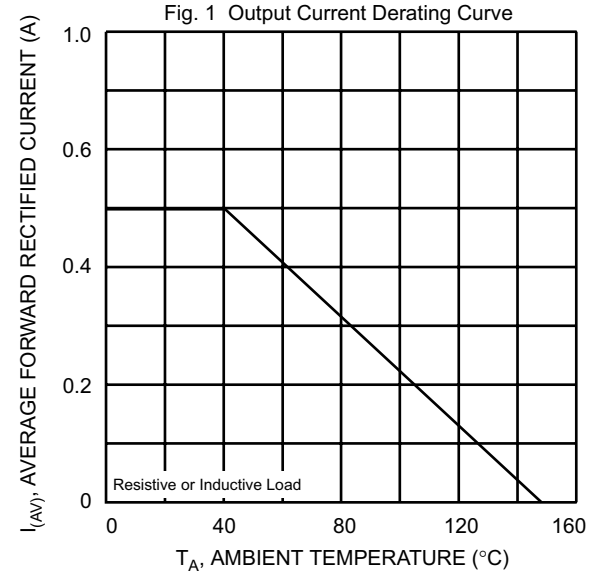


Fig. 2 Typical Forward Characteristics (per leg)

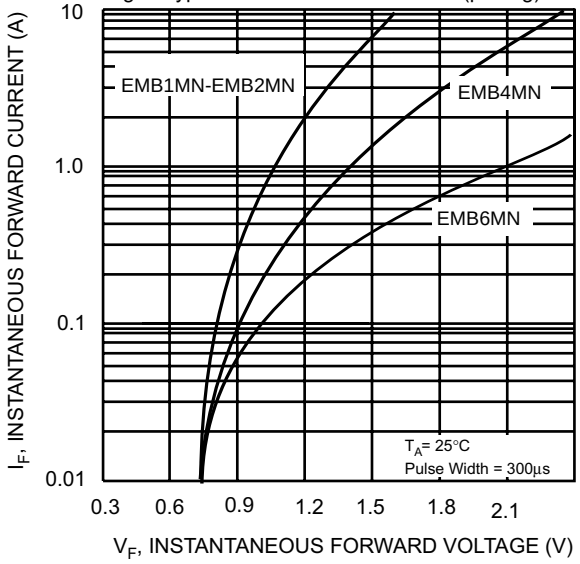


Fig. 3 Maximum Peak Forward Surge Current (per leg)

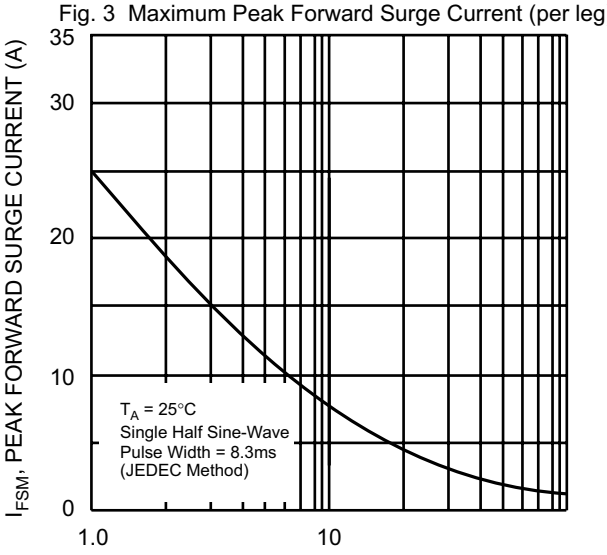


Fig. 4 Typical Junction Capacitance

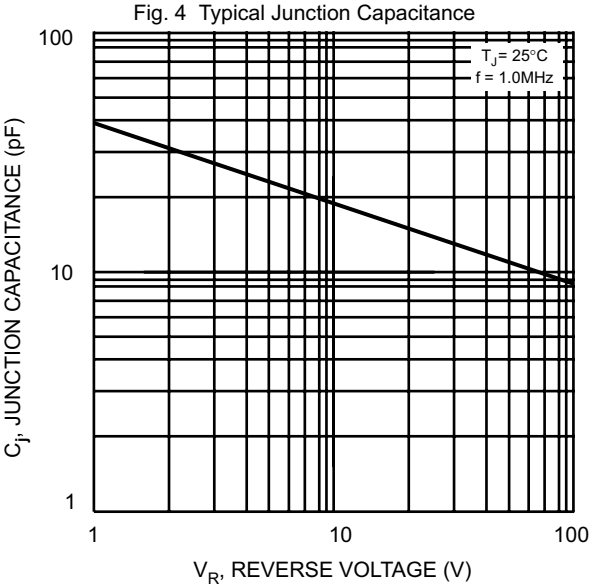


Fig. 5 T ypical Reverse Characteristics (per element)