

Preliminary
MBC08JH THRU MBC08MH

● **FEATURES**

- * Halogen-free type
- * Internal structure with GPRC (glass passivated rectifier chip) inside
- * Compliance to RoHS product
- * Lead less chip form, no lead damage
- * Low power loss, High efficiency
- * High current capability
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● **APPLICATION**

- * AC/DC Power Supply
- * Communication Equipment

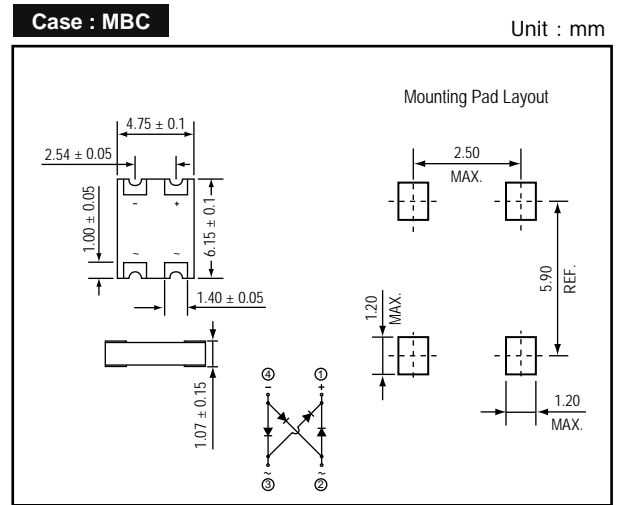
● **MECHANICAL DATA**

Case : Packed with FRP substrate and epoxy underfilled
Terminals : Pure Tin plated (Lead-Free),
solderable per MIL-STD-750, Method 2026.
Polarity : Laser marking symbols
Weight : 0.07 gram

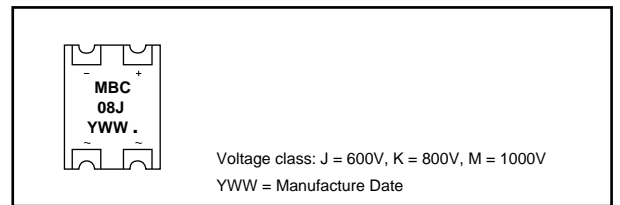
● **PACKING**

- * 5,000 pieces per 13" (330mm ± 2mm) reel
- * 2 reels per box
- * 5 boxes per carton

● **OUTLINE DIMENSIONS**



● **MARKING**



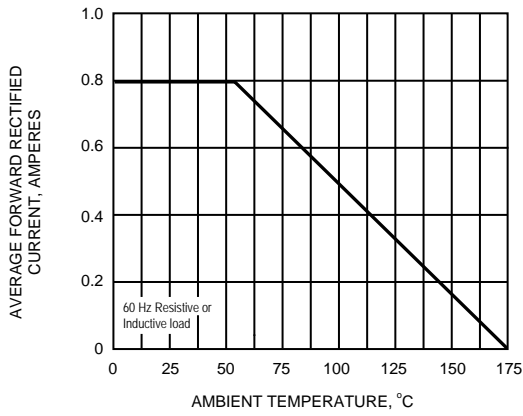
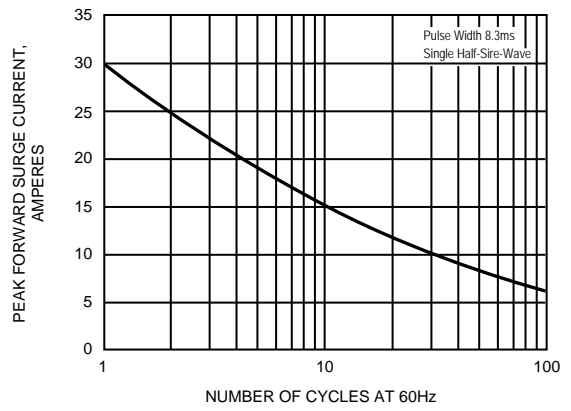
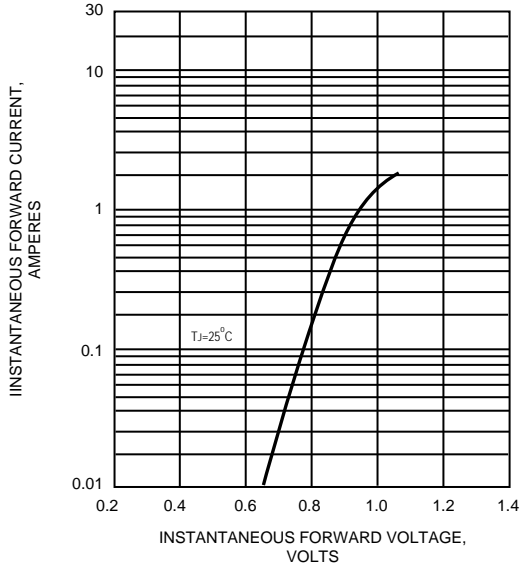
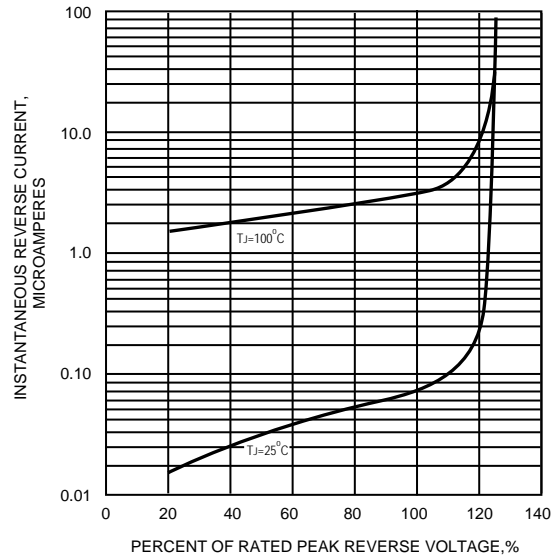
Absolute Maximum Ratings (Ta = 25 °C)

| ITEM | Symbol | Conditions | Rating | | | Unit |
|--|----------|-----------------------------|-------------|---------|---------|------|
| | | | MBC08JH | MBC08KH | MBC08MH | |
| Repetitive peak reverse voltage | VRRM | | 600 | 800 | 1000 | V |
| Average forward current | IF(AV) | | 0.8 | | | A |
| Peak forward surge current | IFSM | 8.3ms single half sine-wave | 30 | | | A |
| Operating junction and storage temperature Range | Tj, TSTG | | -55 to +175 | | | °C |

Electrical characteristics (Ta = 25 °C)

| ITEM | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|---------------------------------|------------------|-----------------------------|--------|--------------|--------------|------------------|
| Forward voltage | VF | IF = 0.4A IF = 0.8A | - - | 0.87 0.92 | 0.90 0.95 | V |
| Repetitive peak reverse current | IRRM | VR = Max. VRRM , Ta = 25 °C | - | 0.08 | 5 | uA |
| Current squared time | I ² t | t < 8.3ms , Ta = 25 °C | - | 3.74 | - | A ² s |
| Junction capacitance | Cj | VR = 4V, f = 1.0 MHz | - | 25 | - | pF |
| Thermal resistance | Rth(JA) | Junction to ambient (NOTE) | - | 110 | - | °C/W |
| | Rth(JL) | Junction to lead (NOTE) | - | 15 | - | |

NOTES : Thermal resistance, junction to ambient, measured on PC board with 5.0 x 5.0mm (0.03mm thick) land areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

FIG.5 - TYPICAL JUNCTION CAPACITANCE
