

## WSMBC345MH

### FEATURES

- \* Halogen-free type
- \* 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

- \* Suitable for battery - powered circuits
- \* 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

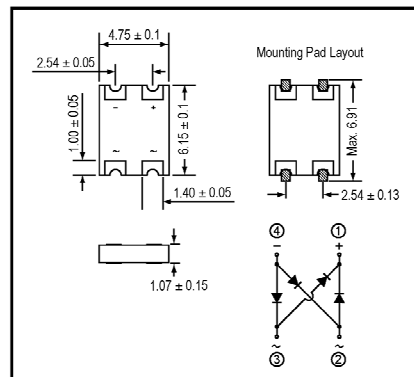
### PACKING

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

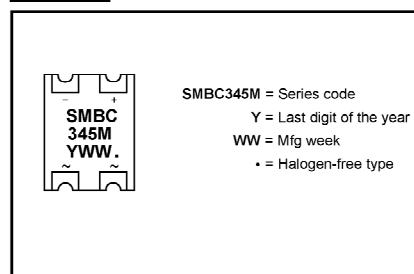
### OUTLINE DIMENSIONS

**Case : MBC**

Unit : mm



### MARKING



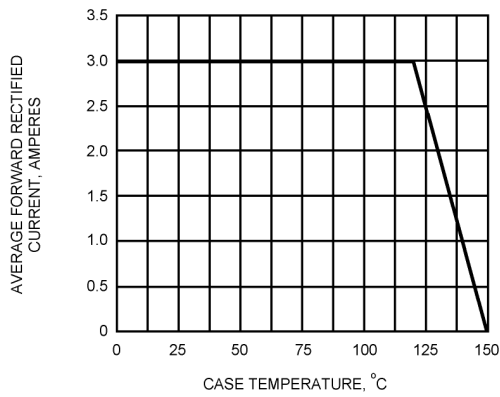
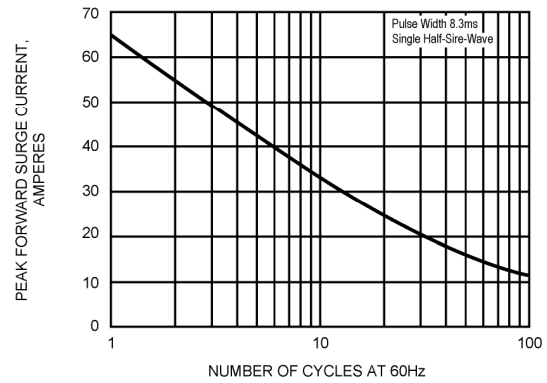
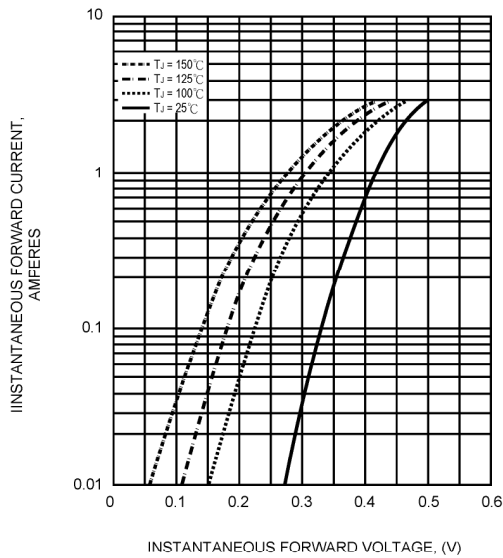
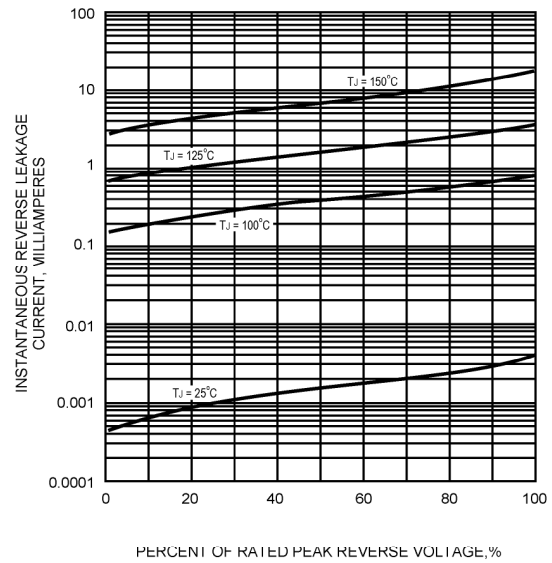
### Absolute Maximum Ratings (Ta = 25 °C)

| ITEM                                | Symbol   | Conditions                  | Rating      | Unit |
|-------------------------------------|----------|-----------------------------|-------------|------|
| Repetitive peak reverse voltage     | VRRM     |                             | 45          | V    |
| Average forward current             | IF(AV)   |                             | 3           | A    |
| Peak forward surge current          | IFSM     | 8.3ms single half sine-wave | 65          | A    |
| Operating storage temperature Range | Tj, TSTG |                             | -55 to +150 | °C   |

### Electrical characteristics (Ta = 25 °C)

| ITEM                            | Symbol  | Conditions                                  | Min.   | Typ.         | Max.       | Unit |
|---------------------------------|---------|---------------------------------------------|--------|--------------|------------|------|
| Forward voltage                 | VF      | IF = 1.0A<br>IF = 3.0A                      | -<br>- | 0.42<br>0.50 | -<br>0.55  | V    |
| Repetitive peak reverse current | IRRM    | VR = Max. VRRM<br>Ta = 25 °C<br>Ta = 125 °C | -<br>- | 0.005<br>3.8 | 0.10<br>10 | mA   |
| Junction capacitance            | Cj      | VR = 4V, f = 1.0 MHz                        | -      | -            | 250        | pF   |
| Thermal resistance              | Rth(JA) | Junction to ambient (NOTE)                  | -      | 128          | -          | °C/W |
|                                 | Rth(JC) | Junction to case (NOTE)                     | -      | 18           | -          |      |

NOTES : Thermal resistance, junction to ambient, measured on PC board with recommended 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**

**FIG.5 - TYPICAL JUNCTION CAPACITANCE**
