

■ **Features**

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

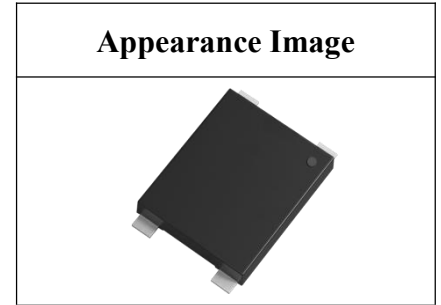
| |
|-------------------------------------|
| Reverse Voltage 50-1000 V |
| Forward Current 3.0 A max |

■ **Applications**

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

■ **Mechanical Data**

- Case: TMBF
- 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**

- TMBF3xx(005~10)

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

| PARAMETER | SYMBOL | UNIT | TMBF3005 | TMBF301 | TMBF302 | TMBF304 | TMBF306 | TMBF308 | TMBF310 |
|--|-------------|------------------|----------|---------|---------|---------|---------|---------|---------|
| 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 | 3.0 | | | | | | |
| 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 | Pt | A ² S | 41.5 | | | | | | |
| 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 | TMBF3005 | TMBF301 | TMBF302 | TMBF304 | TMBF306 | TMBF308 | TMBF310 |
|---|-------------------------|--------|------|----------|---------|---------|---------|---------|---------|---------|
| Maximum instantaneous forward voltage | $I_F=1.5A$ | 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)**

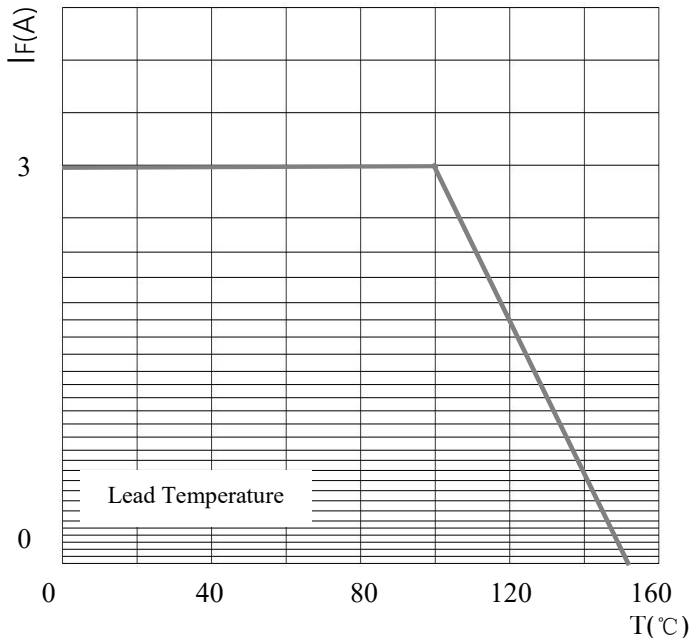


FIG1. Derating Curve For Output Rectified Current

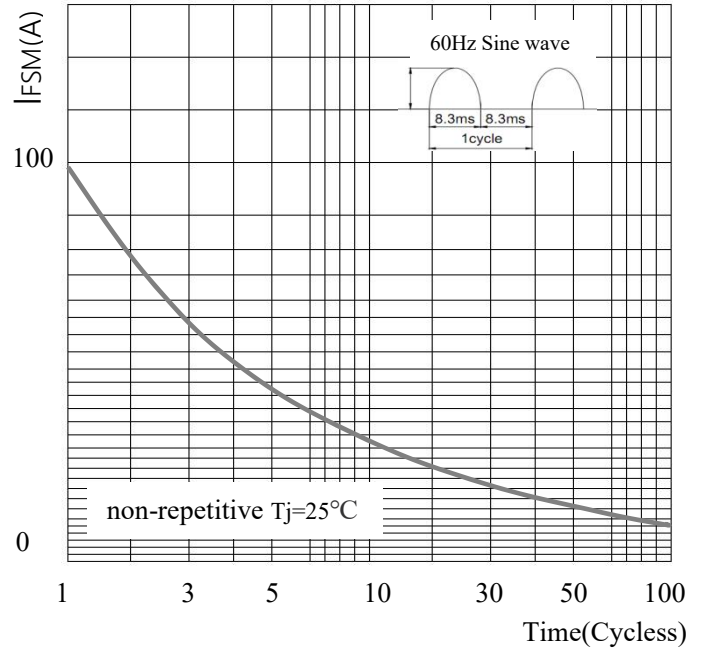


FIG2. Surge Forward Current Capability

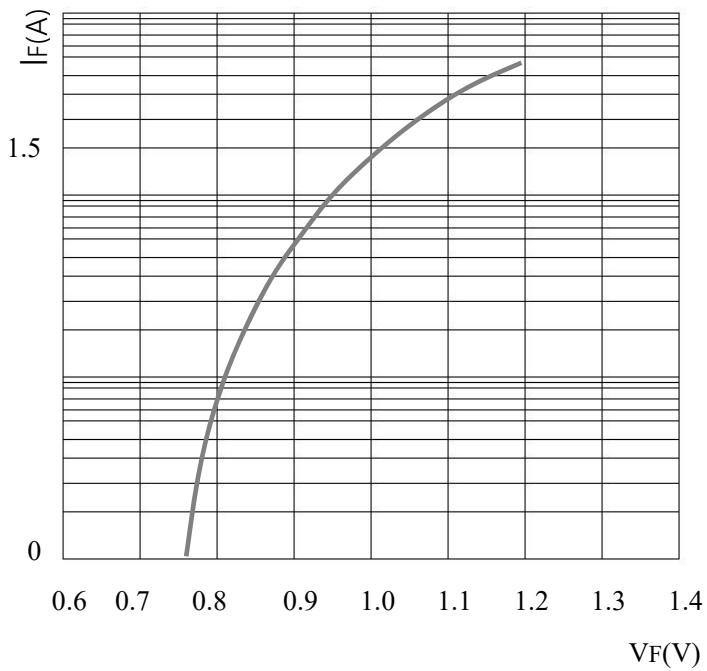


FIG3. Typical Forward Characteristics

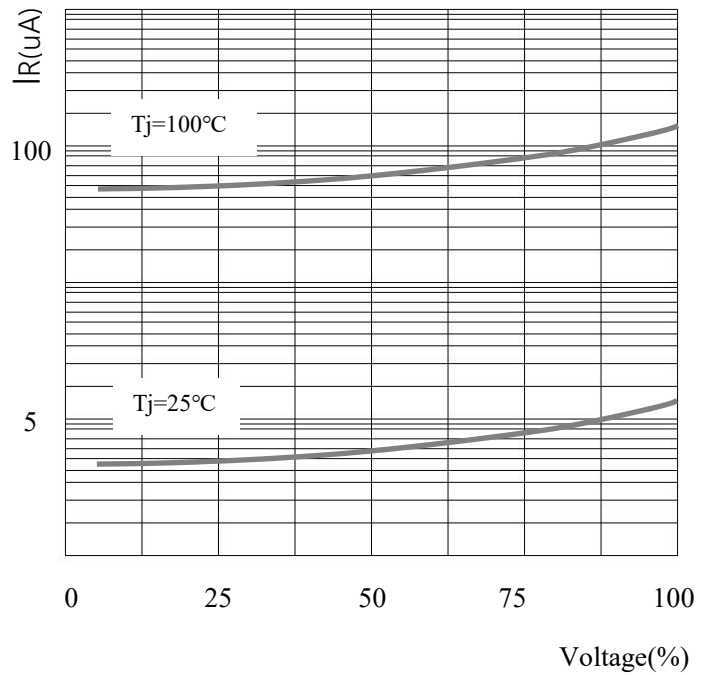


FIG4. Typical Reverse Characteristics

■ **Marking and packet information**



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

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

■ **TMBF 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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