



EBRT3E45M



Excellent Schottky Barrier Rectifiers



DO-15

| Primary Characteristics | | |
|-------------------------|------|----|
| I_F | 3 | A |
| V_{RRM} | 45 | V |
| I_{FSM} | 30 | A |
| V_F | 0.43 | V |
| $T_J \text{ max}$ | 150 | °C |

| Features |
|--|
| <ul style="list-style-type: none"> • Guardring for overvoltage protection • Very small conduction losses • Low forward voltage drop • Component in accordance to RoHS 2002/95/EC |

| Mechanical Data |
|---|
| <ul style="list-style-type: none"> • Cases: DO-15 • Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 • Terminals: Lead free Plating (Tin Finish) Solderable per MIL-STD-202, Method 208 • Polarity: Cathode Band • Weight: 0.366 grams (approximate) |

| Ordering Information | | | |
|----------------------|--------------|---------|-----------------|
| Part No. | Remark | Package | Packing |
| EBRT3E45M | General | DO-15 | 3000 / Ammo Box |
| EBRT3E45M-H | Halogen Free | | |

| Maximum Ratings (TA=25°C unless otherwise noted) | | | |
|--|-----------------|----------------|------|
| PARAMETER | SYMBOL | EBRT3E45M | UNIT |
| Maximum repetitive peak reverse voltage | V_{RRM} | 45 | V |
| Maximum RMS voltage | V_{RMS} | 31.5 | V |
| Maximum DC blocking voltage | V_{DC} | 45 | V |
| Maximum average forward rectified current | I_F | 3 | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 30 | A |
| Maximum Instantaneous Forward Voltage IF=3A @ 25°C IF=3A @ 100°C | V_F | 0.43 0.40 | V |
| Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C | I_R | 0.5 20 | mA |
| Typical Junction Capacitance(NOTE1) | C_j | 365 | pF |
| Typical Thermal Resistance | $R_{\theta JC}$ | 30 | °C/W |
| Operating Temperature Range | T_J | -55 to +150 | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | °C |
| Marking Code | | 3E45M · T3E45M | |

NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC



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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

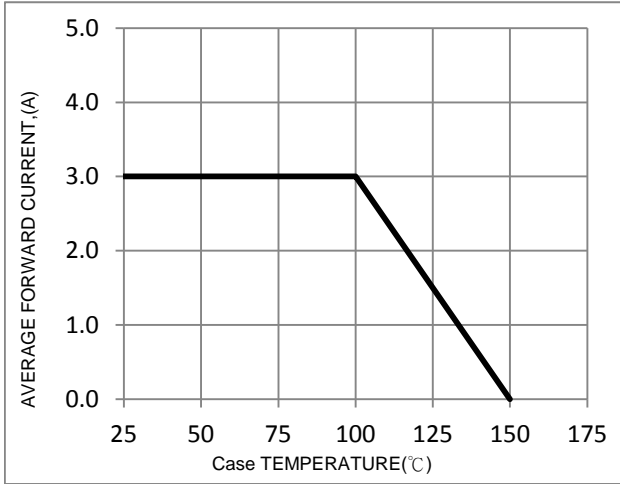


FIG. 2-Typical Forward Characteristics

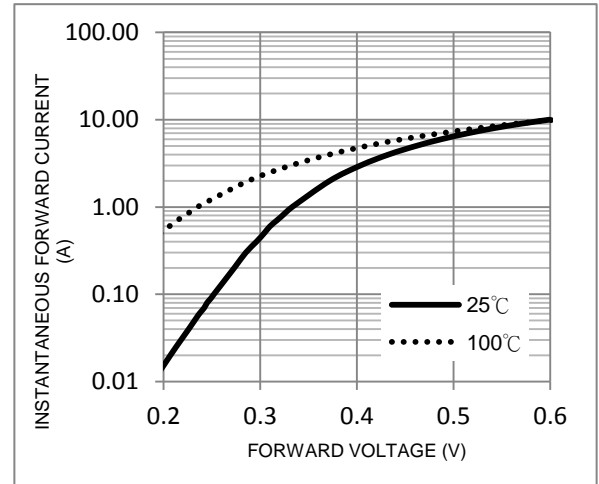


FIG. 3-Maximum Non-Repetitive Forward Surge Current

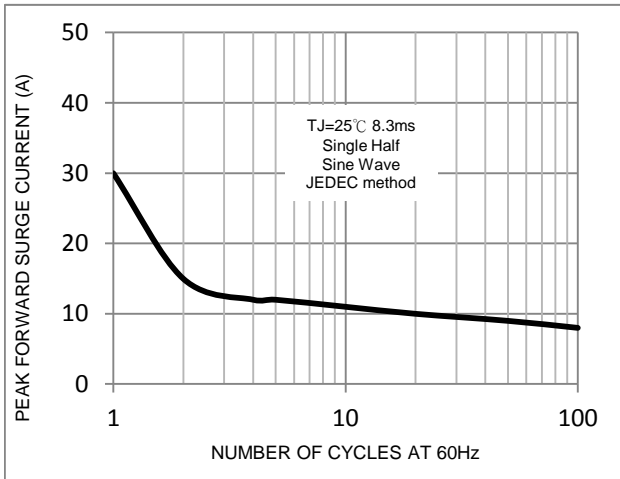


FIG. 4-Typical Reverse Characteristics

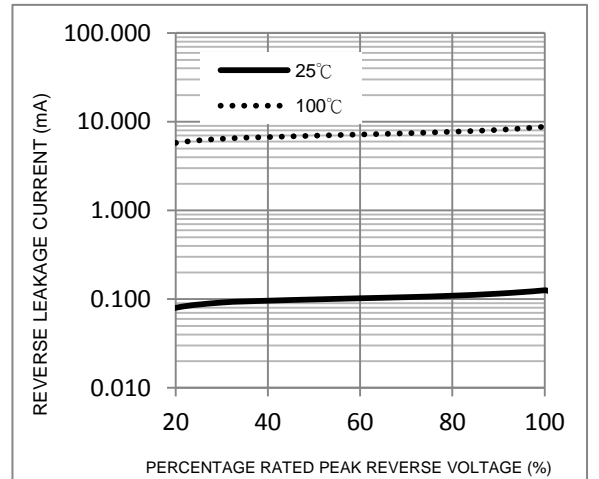
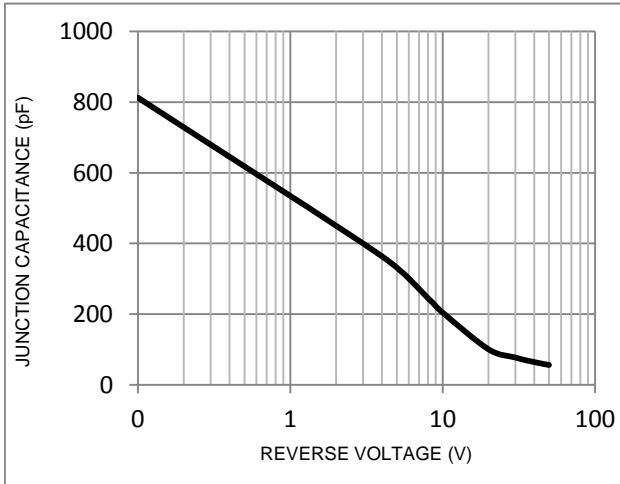
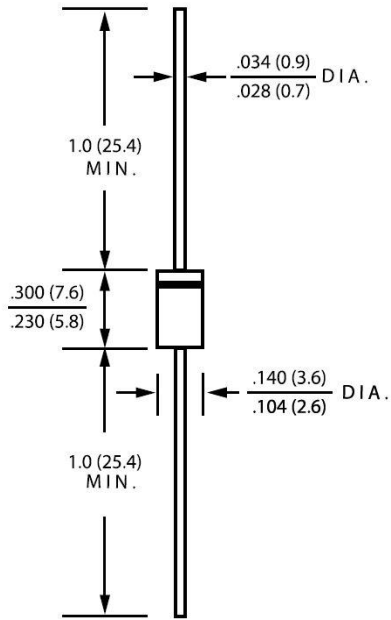


FIG. 5-Typical Junction Capacitance





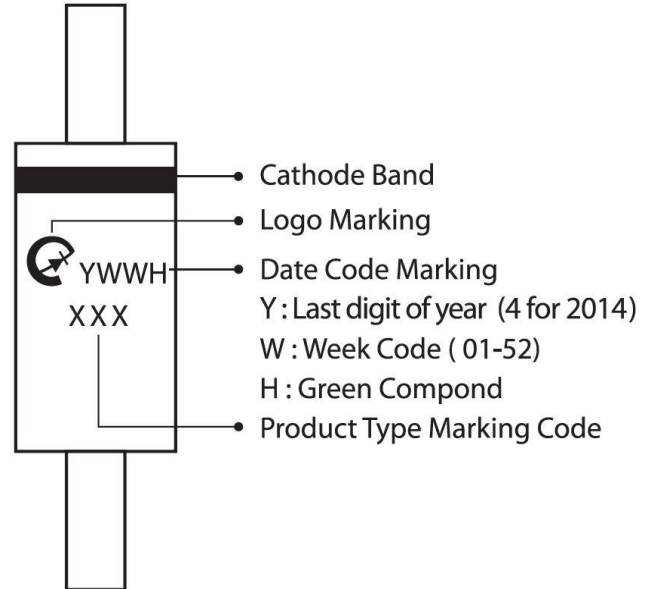
Package Outline Dimensions



DO-15

Dimensions in inches and (millimeters)

Marking Information



Ammo Box Packing

| Package | Inner | BOX | Inner Box | Carton | Carton Size | Gross Weight |
|----------------------|-------|-------|-----------|--------|-------------|--------------|
| | Pack | (EA) | (mm) | (EA) | (mm) | (Kg)-Approx. |
| DO-15(DO-204AC)-52mm | Reel | 3,000 | 245x75x90 | 30,000 | 440x280x335 | 14.0 |