

**EBRT8E60B**

## Schottky Barrier Rectifiers

**DO-214AA(SMB)**

### Features

- High current capability
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC

### Primary Characteristics

|                   |      |    |
|-------------------|------|----|
| $I_F$             | 8    | A  |
| $V_{RRM}$         | 60   | V  |
| $I_{FSM}$         | 125  | A  |
| $V_F$             | 0.47 | V  |
| $T_J \text{ max}$ | 150  | °C |

### Mechanical Data

- Case: DO-214AA(SMB)
- 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: 0.092 grams (approximate)

### Ordering Information

| Part No.    | Remark             | Package | Packing            |
|-------------|--------------------|---------|--------------------|
| EBRT8E60B   | General            | SMB     | 3000 / Tape & Reel |
| EBRT8E60B-H | Halogen Free       |         |                    |
| EBRT8E60B-Q | AEC-Q101 qualified |         |                    |

### Maximum Ratings (TA=25°C unless otherwise noted)

| PARAMETER                                                                          | SYMBOL          | EBRT8E60B              | UNIT |
|------------------------------------------------------------------------------------|-----------------|------------------------|------|
| Maximum repetitive peak reverse voltage                                            | $V_{RRM}$       | 60                     | V    |
| Maximum RMS voltage                                                                | $V_{RMS}$       | 42                     | V    |
| Maximum DC blocking voltage                                                        | $V_{DC}$        | 60                     | V    |
| Maximum average forward rectified current                                          | $I_F$           | 8                      | A    |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$       | 125                    | A    |
| Maximum Instantaneous Forward Voltage<br>IF=2A @ 25°C<br>IF=8A @ 25°C              | $V_F$           | 0.34 Typ.<br>0.47 Max. | V    |
| Maximum DC Reverse Current @ TA=25°C<br>at Rated DC Blocking Voltage @ TA=100°C    | $I_R$           | 0.5<br>10              | Ma   |
| Typical Junction Capacitance(NOTE1)                                                | $C_j$           | 1030                   | pF   |
| Typical Thermal Resistance                                                         | $R_{\theta JC}$ | 25                     | °C/W |
| Operating Temperature Range                                                        | $T_J$           | -55 to +150            | °C   |
| Storage Temperature Range                                                          | $T_{STG}$       | -55 to +150            | °C   |
| Marking Code                                                                       |                 | T8E60B                 |      |

#### NOTES:

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



# Schottky Barrier Rectifiers

## Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

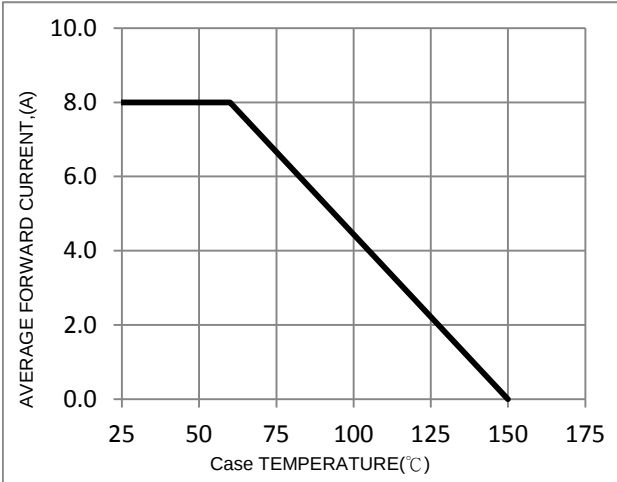


FIG. 2-Typical Forward Characteristics

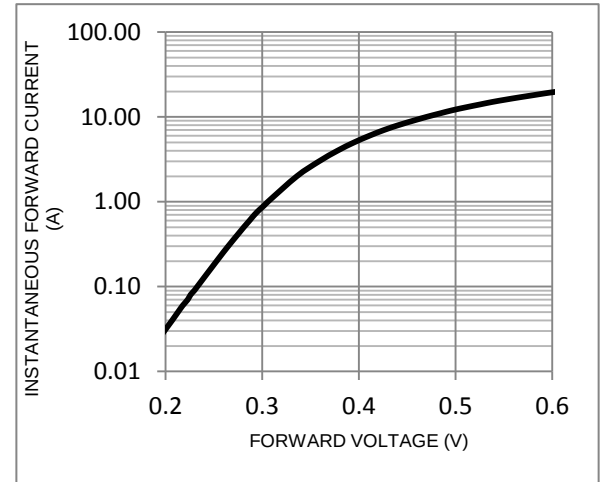


FIG. 3-Maximum Non-Repetitive Forward Surge Current

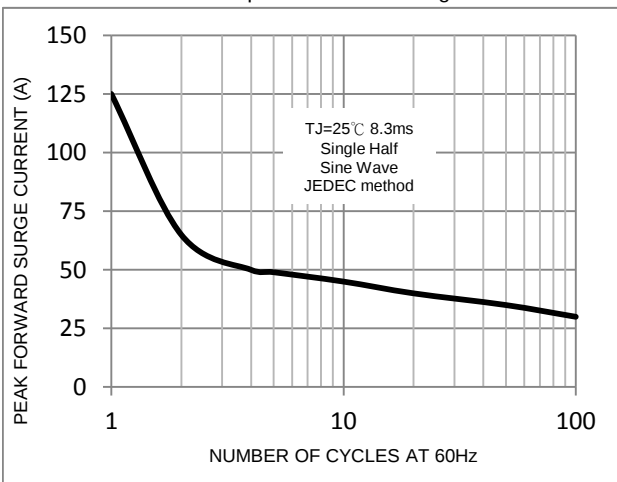


FIG. 4-Typical Reverse Characteristics

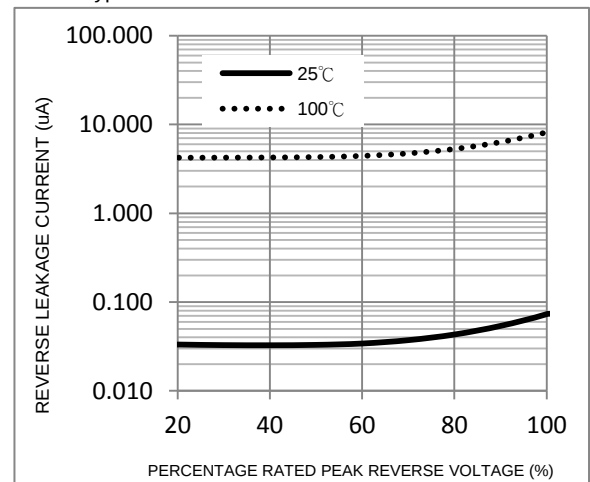
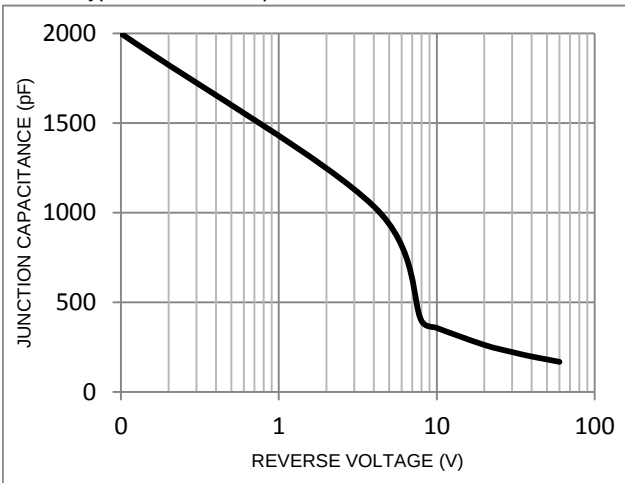


FIG. 5-Typical Junction Capacitance



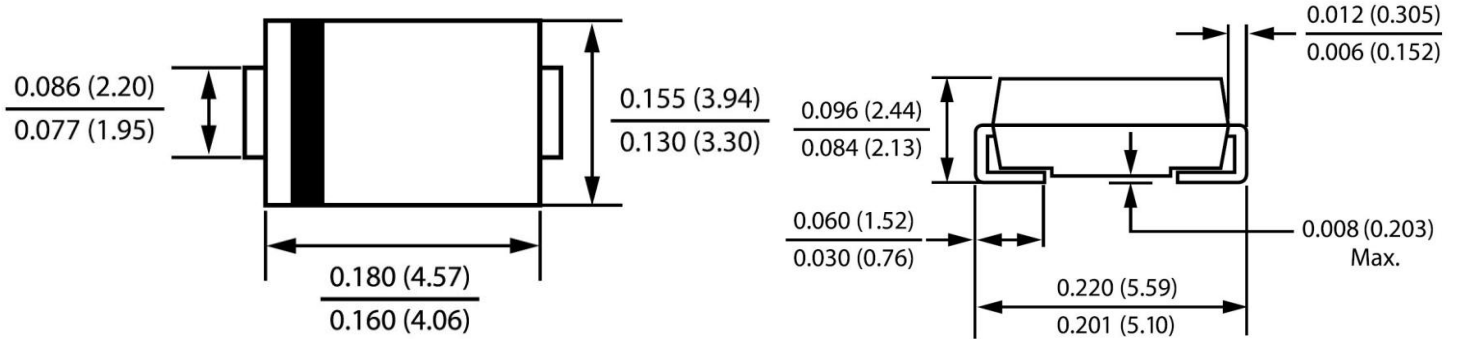


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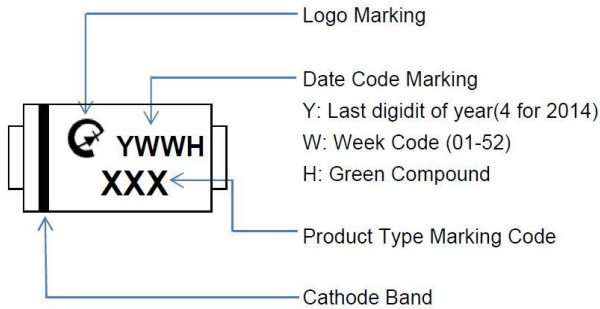
### Package Outline Dimensions



### DO-214AA(SMB)

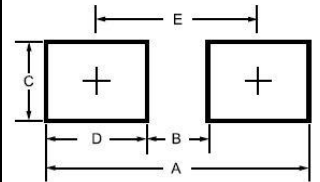
Dimensions in inches and (millimeters)

### Marking Information



### Suggested Pad Layout

| Outline Dimension | SMB (DO-214AA) |
|-------------------|----------------|
| A                 | 6.80           |
| B                 | 1.80           |
| C                 | 2.30           |
| D                 | 2.50           |
| E                 | 4.30           |



### Tape & Reel Specification

| ITEM                   | SYMBOL | SMB(mm)<br>DO-214AA |
|------------------------|--------|---------------------|
| Carrier width          | A      | 4.0(max)            |
| Carrier length         | B      | 5.9(max)            |
| Carrier depth          | C      | 3.0(max)            |
| Sprocket hole          | d      | 1.50±0.1            |
| Reel outside diameter  | D      | 330±2.0             |
| Feed hole diameter     | D0     | 13.5±1              |
| Reel inner diameter    | D1     | 50 (min.)           |
| Sprocket hole position | E      | 1.75±0.1            |
| Punch hole position    | F      | 5.5±0.05            |
| Sprocket hole pitch    | P      | 8.0±0.1             |
| Sprocket hole pitch    | P0     | 4.0±0.1             |
| Embossment center      | P1     | 2.0±0.05            |
| Overall tape thickness | T      | 0.6 (max)           |
| Tape width             | W      | 12.0±0.3            |
| Reel width             | W2     | 18.4 (max)          |
| Reel width             | W1     | 14.4 (max)          |

