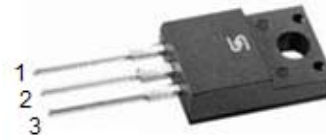


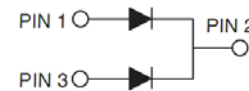
## Dual Common Cathode Schottky Rectifier

### FEATURES

- Low power loss, high efficiency
- Guardring for overvoltage protection
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



### ITO-220AB



### MECHANICAL DATA

**Case:** ITO-220AB

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

**Polarity:** As marked

**Mounting torque:** 5 in-lbs maximum

**Weight:** 1.7 g (approximately)

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted) |                    |                   |                   |                   |                   |                   |                    |                    |      |
|----------------------------------------------------------------------------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|------|
| PARAMETER                                                                                    | SYMBOL             | MBRF<br>835<br>CT | MBRF<br>845<br>CT | MBRF<br>850<br>CT | MBRF<br>860<br>CT | MBRF<br>890<br>CT | MBRF<br>8100<br>CT | MBRF<br>8150<br>CT | UNIT |
| Maximum repetitive peak reverse voltage                                                      | V <sub>RRM</sub>   | 35                | 45                | 50                | 60                | 90                | 100                | 150                | V    |
| Maximum RMS voltage                                                                          | V <sub>RMS</sub>   | 24                | 31                | 35                | 42                | 63                | 70                 | 105                | V    |
| Maximum DC blocking voltage                                                                  | V <sub>DC</sub>    | 35                | 45                | 50                | 60                | 90                | 100                | 150                | V    |
| Maximum average forward rectified current                                                    | I <sub>F(AV)</sub> | 8                 |                   |                   |                   |                   |                    |                    | A    |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load          | I <sub>FSM</sub>   | 150               |                   |                   |                   |                   |                    |                    | A    |
| Maximum instantaneous forward voltage (Note 1)<br>I <sub>F</sub> = 4 A                       | V <sub>F</sub>     | 0.55              |                   | 0.70              |                   | 0.85              |                    | 0.95               | V    |
| Maximum reverse current @ rated VR<br>T <sub>J</sub> =25 °C<br>T <sub>J</sub> =125 °C        | I <sub>R</sub>     | 0.1               |                   |                   |                   |                   |                    |                    | mA   |
|                                                                                              |                    | 15                |                   | 10                |                   | 5                 |                    |                    |      |
| Voltage rate of change (Rated V <sub>R</sub> )                                               | dV/dt              | 10000             |                   |                   |                   |                   |                    |                    | V/μs |
| Typical thermal resistance                                                                   | R <sub>θJC</sub>   | 6                 |                   |                   |                   |                   |                    |                    | °C/W |
| Operating junction temperature range                                                         | T <sub>J</sub>     | - 55 to +150      |                   |                   |                   |                   |                    |                    | °C   |
| Storage temperature range                                                                    | T <sub>STG</sub>   | - 55 to +150      |                   |                   |                   |                   |                    |                    | °C   |

Note 1: Pulse test with PW=300μs, 1% duty cycle

| ORDERING INFORMATION  |              |                     |           |           |
|-----------------------|--------------|---------------------|-----------|-----------|
| PART NO.              | PACKING CODE | GREEN COMPOUND CODE | PACKAGE   | PACKING   |
| MBRF8xxCT<br>(Note 1) | C0           | Suffix "G"          | ITO-220AB | 50 / Tube |

Note 1: "xx" defines voltage from 35V (MBRF835CT) to 150V (MBRF8150CT)

| EXAMPLE       |           |              |                     |                |
|---------------|-----------|--------------|---------------------|----------------|
| PREFERRED P/N | PART NO.  | PACKING CODE | GREEN COMPOUND CODE | DESCRIPTION    |
| MBRF860CT C0  | MBRF860CT | C0           |                     |                |
| MBRF860CT C0G | MBRF860CT | C0           | G                   | Green compound |

## RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

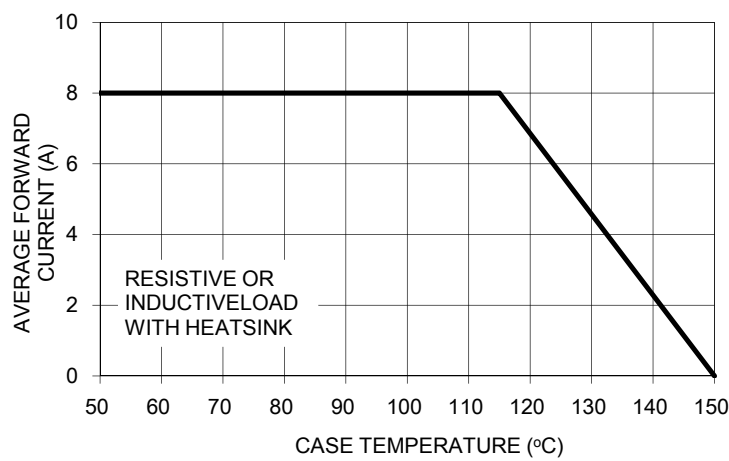


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

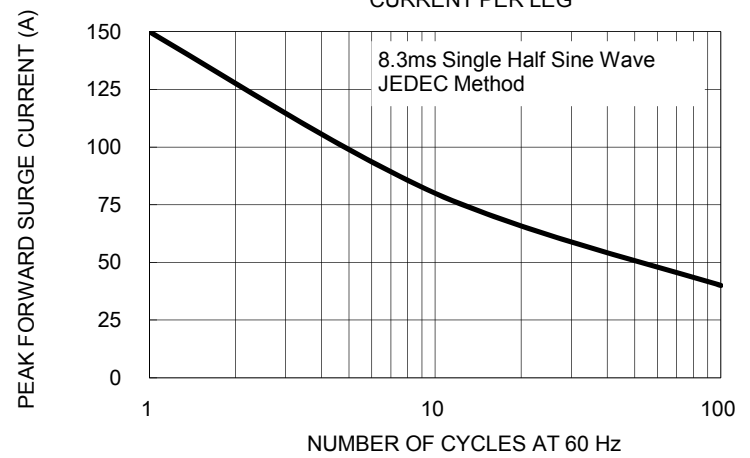


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

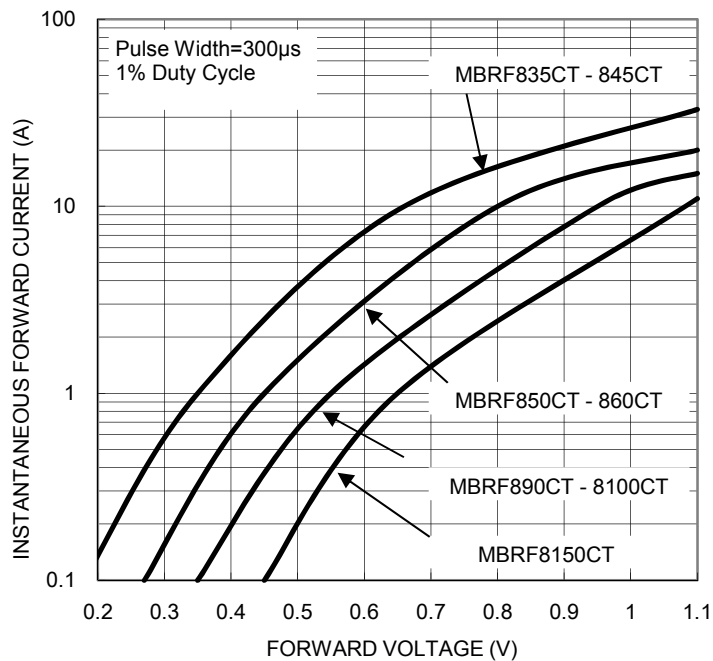


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

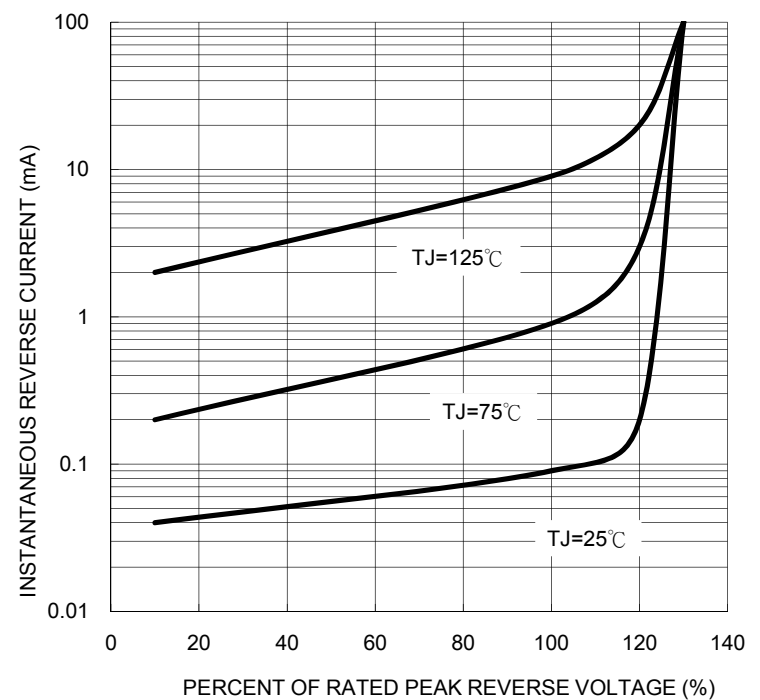


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

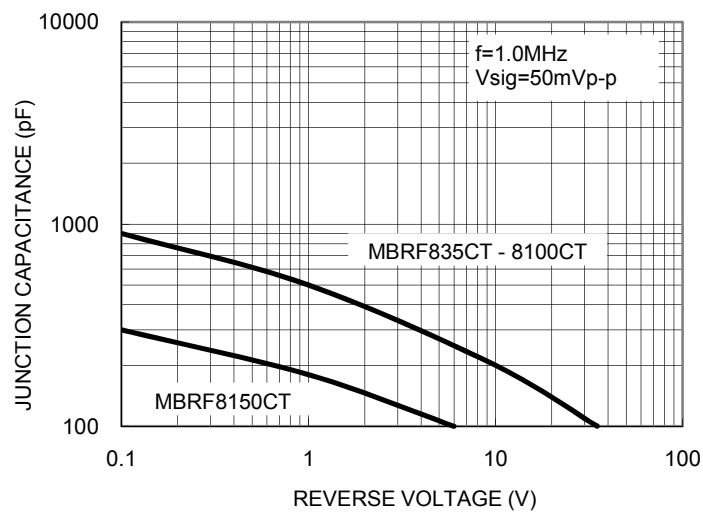
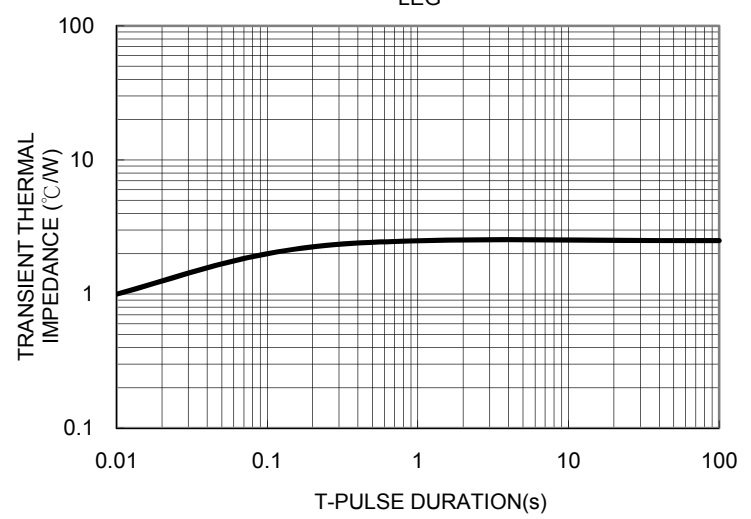
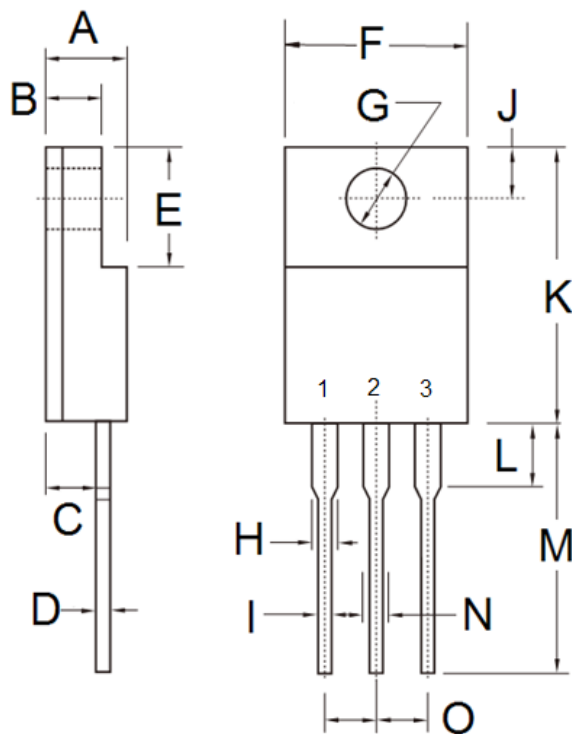


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



## PACKAGE OUTLINE DIMENSIONS



| DIM. | Unit (mm) |       | Unit (inch) |       |
|------|-----------|-------|-------------|-------|
|      | Min       | Max   | Min         | Max   |
| A    | 4.30      | 4.70  | 0.169       | 0.185 |
| B    | 2.50      | 3.16  | 0.098       | 0.124 |
| C    | 2.30      | 2.96  | 0.091       | 0.117 |
| D    | 0.46      | 0.76  | 0.018       | 0.030 |
| E    | 6.30      | 6.90  | 0.248       | 0.272 |
| F    | 9.60      | 10.30 | 0.378       | 0.406 |
| G    | 3.00      | 3.40  | 0.118       | 0.134 |
| H    | 0.95      | 1.45  | 0.037       | 0.057 |
| I    | 0.50      | 0.90  | 0.020       | 0.035 |
| J    | 2.40      | 3.20  | 0.094       | 0.126 |
| K    | 14.80     | 15.50 | 0.583       | 0.610 |
| L    | -         | 4.10  | -           | 0.161 |
| M    | 12.60     | 13.80 | 0.496       | 0.543 |
| N    | -         | 1.80  | -           | 0.071 |
| O    | 2.41      | 2.67  | 0.095       | 0.105 |

## MARKING DIAGRAM



P/N = Specific Device Code  
G = Green Compound  
YWW = Date Code  
F = Factory Code

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