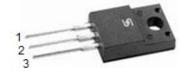


# **Dual Common Cathode Schottky Rectifier**

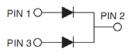
#### **FEATURES**

- 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 Base P/N with prefix "H" on packing code - AEC-Q101 qualified **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 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             | MBRF3080CT                   | UNIT |  |  |
| Maximum repetitive peak reverse voltage  | $V_{RRM}$          | 80                           | V    |  |  |
| Maximum RMS voltage  | $V_{RMS}$          | 56                           | V    |  |  |
| Maximum DC blocking voltage  | V <sub>DC</sub>    | 80                           | V    |  |  |
| Maximum average forward rectified current  | I <sub>F(AV)</sub> | 30                           | A    |  |  |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load  | I <sub>FSM</sub>   | 200                          | А    |  |  |
| Peak repetitive reverse surge current (Note 1)   | I <sub>RRM</sub>   | 0.5                          | A    |  |  |
| Maximum instantaneous forward voltage (Note 2) $I_F=15A$ , $T_J=25^{\circ}$ C $I_F=15A$ , $T_J=125^{\circ}$ C $I_F=30A$ , $T_J=25^{\circ}$ C $I_F=30A$ , $T_J=125^{\circ}$ C | V <sub>F</sub>     | 0.84<br>0.70<br>0.94<br>0.82 | V    |  |  |
| Maximum reverse current @ rated VR $T_{\rm J}$ =25 $^{\circ}{\rm C}$ $T_{\rm J}$ =125 $^{\circ}{\rm C}$  | I <sub>R</sub>     | 0.2<br>10                    | mA   |  |  |
| Voltage rate of change (Rated V <sub>R</sub> )   | dV/dt              | 10000                        | V/µs |  |  |
| Typical thermal resistance   | R <sub>eJC</sub>   | 5                            | °C/W |  |  |
| Operating junction temperature range   | T <sub>J</sub>     | - 55 to +150                 | οС   |  |  |
| Storage temperature range  | T <sub>STG</sub>   | - 55 to +150                 | οС   |  |  |

Note 1: tp = 2.0 µs, 1.0KHz

Note 2: Pulse test with PW=300µs, 1% duty cycle

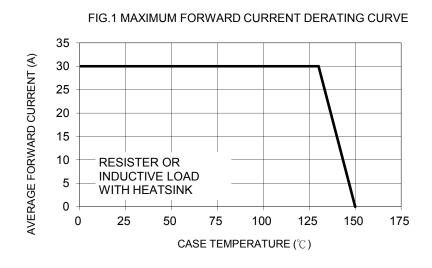


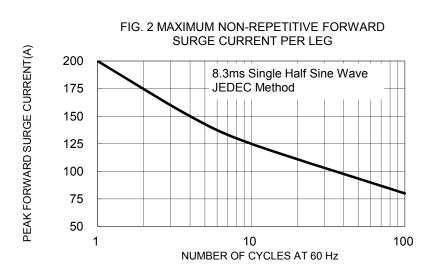
| ORDERING INFORMATION |            |              |                |           |           |
|----------------------|------------|--------------|----------------|-----------|-----------|
| PART NO.             | AEC-Q101   | PACKING CODE | GREEN COMPOUND | PACKAGE   | PACKING   |
|                      | QUALIFIED  |              | CODE           |           |           |
| MBRF3080CT           | Prefix "H" | C0           | Suffix "G"     | ITO-220AB | 50 / Tube |

| EXAMPLE        |            |                       |              |                     |                    |
|----------------|------------|-----------------------|--------------|---------------------|--------------------|
| PREFERRED P/N  | PART NO.   | AEC-Q101<br>QUALIFIED | PACKING CODE | GREEN COMPOUND CODE | DESCRIPTION        |
| MBRF3080CT C0  | MBRF3080CT |                       | C0           |                     |                    |
| MBRF3080CT C0G | MBRF3080CT |                       | C0           | G                   | Green compound     |
| MBRF3080CTHC0  | MBRF3080CT | Н                     | C0           |                     | AEC-Q101 qualified |

#### **RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)





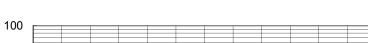
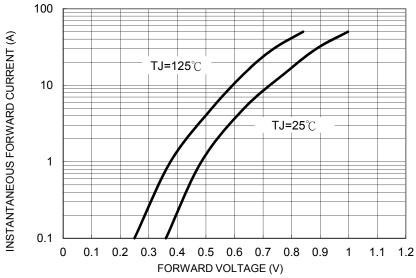
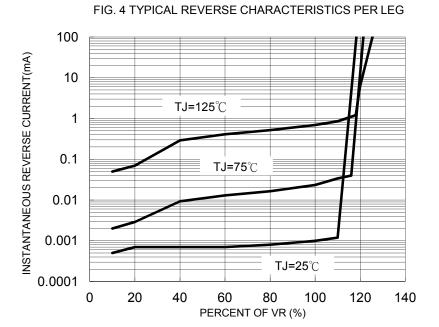


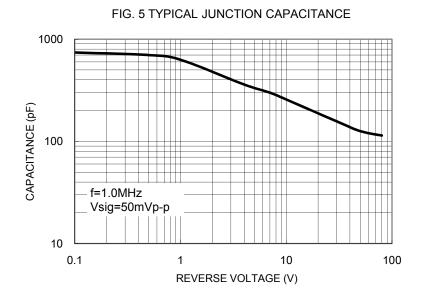
FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

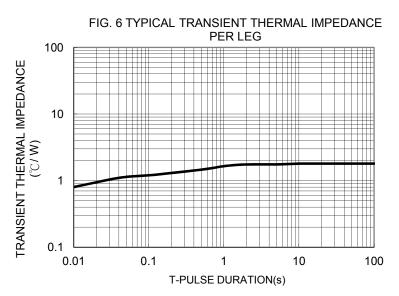




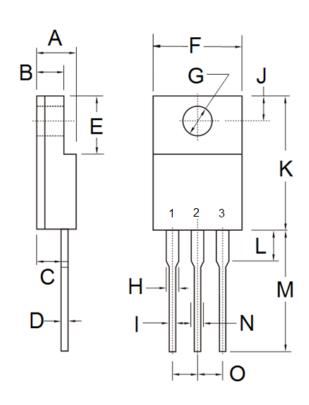








## **PACKAGE OUTLINE DIMENSIONS**



| DIM. | Unit  | (mm)  | Unit (inch) |       |
|------|-------|-------|-------------|-------|
|      | Min   | Max   | Min         | Max   |
| Α    | 4.30  | 4.70  | 0.169       | 0.185 |
| В    | 2.50  | 3.16  | 0.098       | 0.124 |
| С    | 2.30  | 2.96  | 0.091       | 0.117 |
| D    | 0.46  | 0.76  | 0.018       | 0.030 |
| Е    | 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 |
| Н    | 0.95  | 1.45  | 0.037       | 0.057 |
| ı    | 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 |
| М    | 12.60 | 13.80 | 0.496       | 0.543 |
| N    | -     | 1.80  | -           | 0.071 |
| 0    | 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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