



MBR20150C

DIODE

SCHOTTKY BARRIER RECTIFIER

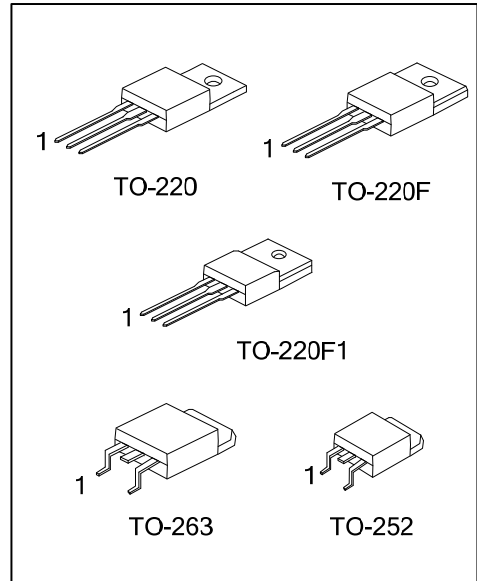
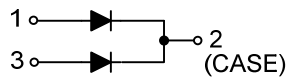
DESCRIPTION

The UTC **MBR20150C** is a Schottky Barrier Rectifier with high junction temperature capacity.

FEATURES

- * Good trade off between leakage current and forward voltage drop
- * High junction temperature capability
- * Low leakage current

SYMBOL



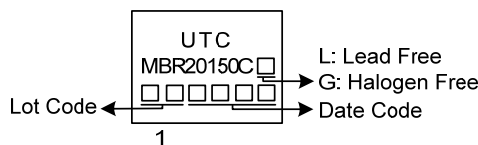
ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|------------------|------------------|----------|----------------|---|---|-----------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| MBR20150CL-TA3-T | MBR20150CG-TA3-T | TO-220 | A | K | A | Tube |
| MBR20150CL-TF3-T | MBR20150CG-TF3-T | TO-220F | A | K | A | Tube |
| MBR20150CL-TF1-T | MBR20150CG-TF1-T | TO-220F1 | A | K | A | Tube |
| MBR20150CL-TN3-R | MBR20150CG-TN3-R | TO-252 | A | K | A | Tape Reel |
| MBR20150CL-TQ2-T | MBR20150CG-TQ2-T | TO-263 | A | K | A | Tube |
| MBR20150CL-TQ2-R | MBR20150CG-TQ2-R | TO-263 | A | K | A | Tape Reel |

Note: Pin Assignment: A: Anode K: Cathode

| | |
|-------------------------|---|
| <p>MBR20150CG-TA3-T</p> | <p>(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TF1: TO-220F1 TN3: TO-252, TQ2: TO-263 (3) G: Halogen Free and Lead Free, L: Lead Free</p> |
|-------------------------|---|

MARKING



■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

| PARAMETER | | SYMBOL | RATINGS | UNIT |
|--|---------|---------------------|------------|------|
| Recurrent Peak Reverse Voltage | | V _{RRM} | 150 | V |
| RMS Voltage | | V _{R(RMS)} | 105 | V |
| DC Blocking Voltage | | V _R | 150 | V |
| Average Forward Rectified Output Current | Per Leg | I _O | 10 | A |
| | Total | | 20 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave | | I _{FSM} | 150 | A |
| Junction Capacitance (Note 4) | | C _J | 320 | pF |
| Junction Temperature | | T _J | -55 ~ +175 | °C |
| Storage Temperature | | T _{STG} | -55 ~ +175 | °C |

■ THERMAL CHARACTERISTICS

| PARAMETER | | SYMBOL | RATINGS | UNIT |
|---------------------|------------------|-----------------|---------|------|
| Junction to Ambient | | θ _{JA} | 60 | °C/W |
| Junction to Case | TO-220/TO-263 | θ _{JC} | 2 | °C/W |
| | TO-220F/TO-220F1 | | 4 | °C/W |
| | TO-252 | | 3 | °C/W |

■ ELECTRICAL CHARACTERISTICS

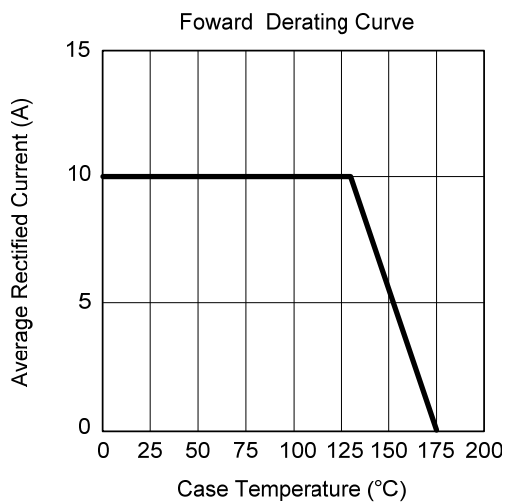
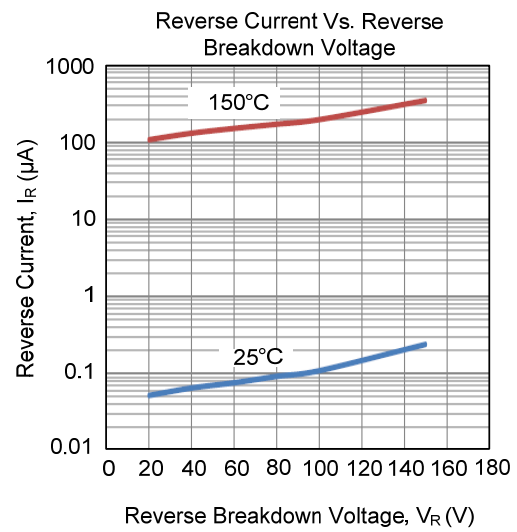
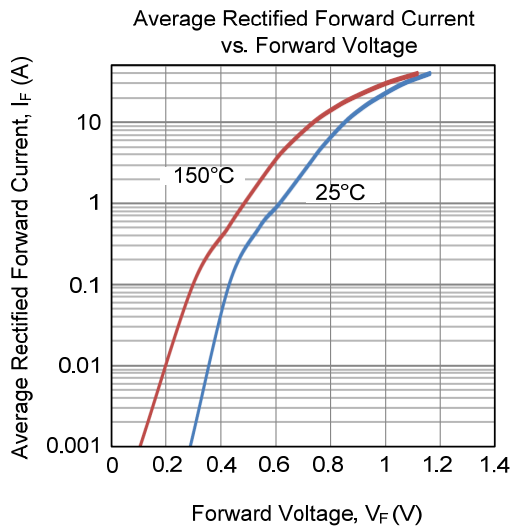
| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--|----------------|--|-----|-----|------|------|
| Instantaneous Forward Voltage Drop (Note 3) | V _F | I _F =10A, T _C =25°C | | | 0.92 | V |
| | | I _F =10A, T _C =125°C | | | 0.8 | V |
| | | I _F =20A, T _C =25°C | | | 1.05 | V |
| | | I _F =20A, T _C =125°C | | | 1 | V |
| Instantaneous Reverse Current (Note 3) | I _R | Rated DC Voltage, T _C =25°C | | | 0.20 | mA |
| | | Rated DC Voltage, T _C =125°C | | | 5 | |

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. 2.0µs Pulse Width, f = 1.0KHz.
3. Pulse Test: Pulse Width=300µs, Duty Cycle≤ 2.0%.
4. Applied V_R = 4.0V and f = 1.0MHz.

■ TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.