

MBR5100D ~ MBR5200D

Power Schottky Rectifier - 5Amp 100~200Volt

Features

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- High Junction Temperature Capability
- Low forward voltage, high current capability
- High surge capacity
- Low power loss, high efficiency

Mechanical data

- Switching-Mode Power Supply
- Solar-System Control Box

Maximum ratings and Electrical characteristics

| Parameters | MBR5100D | MBR5150D | MBR5200D | UNIT |
|---|-------------|----------|----------|------|
| Maximum Recurrent Peak Reverse Voltage | 100 | 150 | 200 | V |
| Maximum RMS Voltage | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | 100 | 150 | 200 | V |
| Maximum Average Forward Rectified Current | 5 | | | A |
| Peak Forward Surge Current | 80 | | | A |
| Maximum Instantaneous Forward Voltage Per Leg at IF = 2.5A | Tc = 25°C | 0.82 | 0.88 | V |
| | Tc = 125°C | 0.66 | 0.69 | |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | Tc = 25°C | 0.05 | | mA |
| | Tc = 125°C | 10 | | |
| Typical Junction Capacitance | 250 | | | pF |
| Typical Thermal Resistance Rθ(j-c) | 3.0 | | | °C/W |
| Operating and Storage Temperature Range | -50 to +175 | | | °C |

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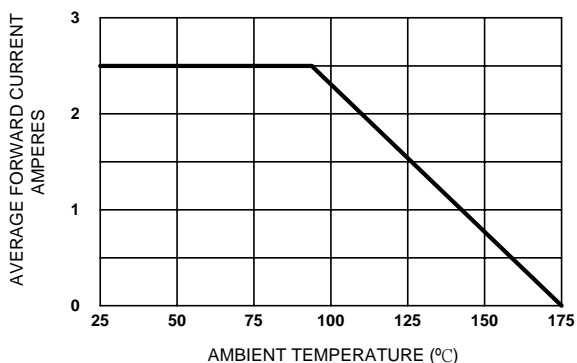


Figure 1. Forward Current Derating Curve

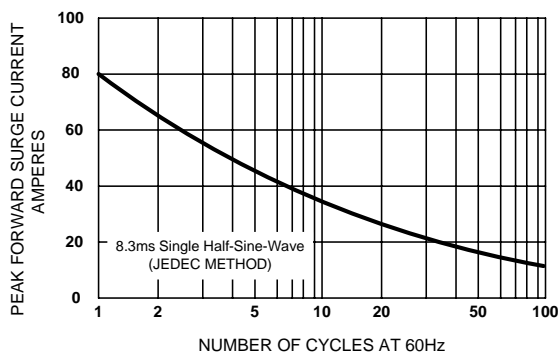


Figure 2. Maximum Non-repetitive Surge Current

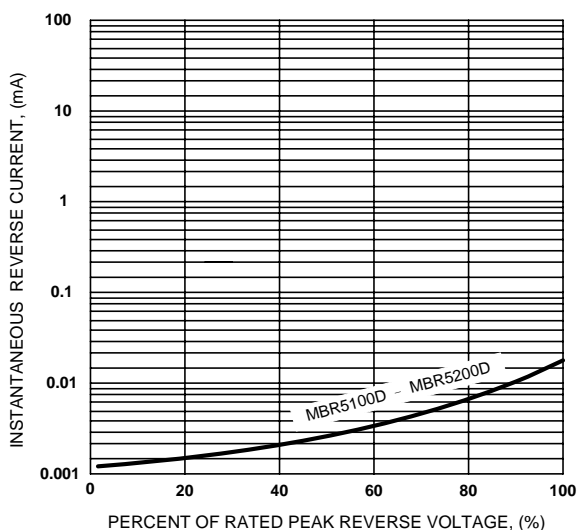


Figure 3. Typical Reverse Characteristics

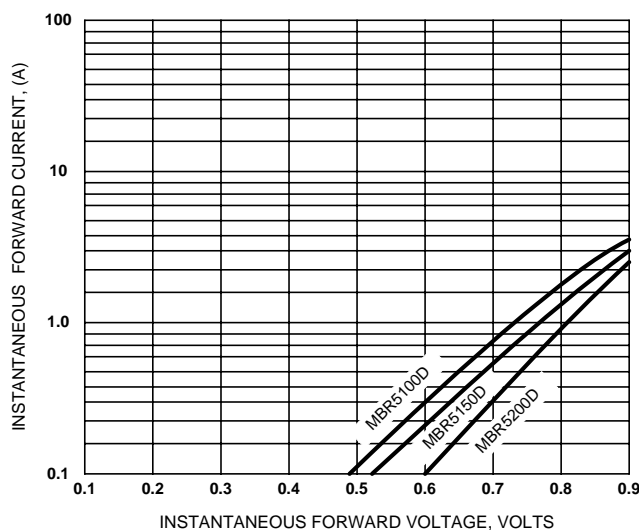


Figure 4. Typical Forward Characteristics

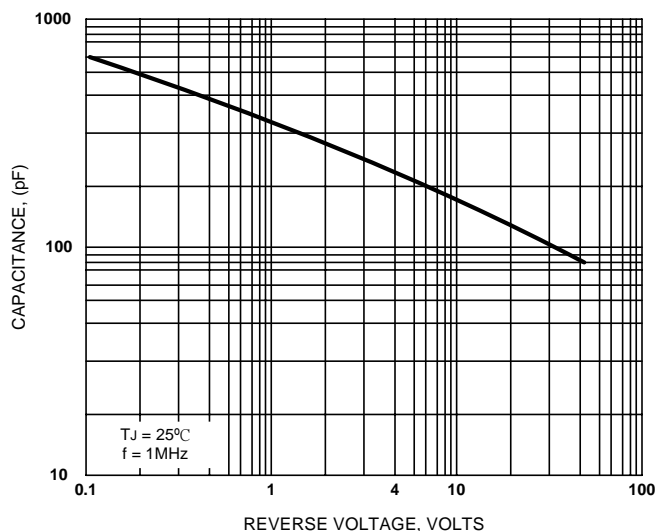


Figure 5. Typical Junction Capacitance

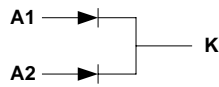
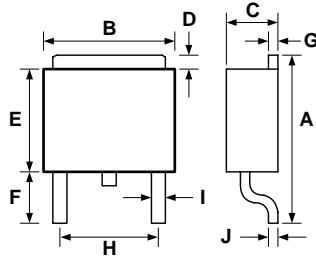


Sirectifier Global Corp., Delaware, U.S.A.

U.S.A.: sgc@sirectsemi.com France: ss@sirectsemi.com Taiwan: se@sirectsemi.com Hong Kong: hk@sirectsemi.com
 China: st@sirectsemi.com Thailand: th@sirectsemi.com Philippines: aiac@sirectsemi.com Belize: belize@sirectsemi.com

MBR5100D~MBR5200D

T0-252 / D-Pak



| DIMENSIONS | | | | | |
|------------|--------|------|------|-------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | .354 | .394 | 9.00 | 10.00 | |
| B | .248 | .263 | 6.30 | 6.70 | |
| C | .083 | .098 | 2.10 | 2.50 | |
| D | .031 | .051 | 0.80 | 1.30 | |
| E | .224 | .244 | 5.70 | 6.20 | |
| F | .094 | .114 | 2.40 | 2.90 | |
| G | .016 | .023 | 0.40 | 0.60 | |
| H | .169 | .185 | 4.30 | 4.70 | |
| I | .026 | .039 | 0.65 | 1.00 | |
| J | .016 | .023 | 0.40 | 0.60 | |