

**Power Schottky Rectifier - 20Amp 150Volt**

**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
- ESD performance human body mode > 6 KV
- Halogen-Free

**Application**

- AC/DC Switching Adaptor and other Switching Power Supply

**Absolute maximum ratings**

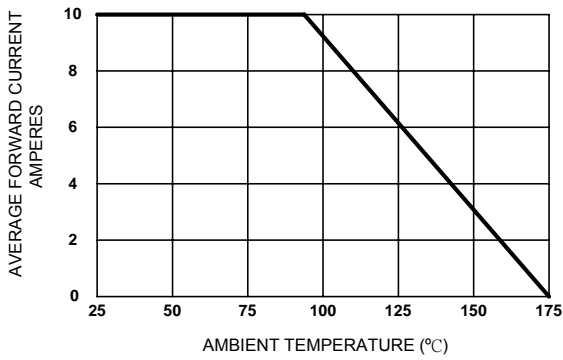
| Symbol   | Ratings     | Unit | Conditions                        |
|----------|-------------|------|-----------------------------------|
| IF(AV)   | 20          | A    | Average Forward Current           |
| VRRM     | 150         | V    | Repetitive Peak Reverse Voltage   |
| IFSM     | 150         | A    | Peak Forward Surge Current        |
| VF       | 0.69        | V    | Forward Voltage Drop              |
| Tj, Tstg | -50 to +175 | °C   | Operating and Storage Temperature |

**Electrical characteristics**

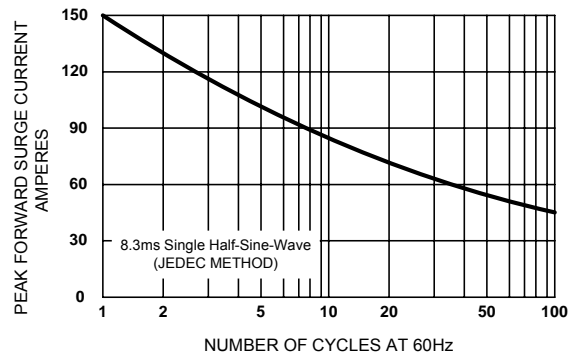
| Parameters                                   | Symbol  | Ratings  | Conditions                            |
|--|---------|----------|---------------------------------------|
| Maximum Instantaneous Forward Voltage        | VF      | 0.88V    | Per Leg at IF = 10A<br>Tc = 25°C      |
|  |         | 0.69V    | Tc = 125°C                            |
| Maximum Reverse Leakage Current              | IR      | 0.05mA   | Per Leg at VR = 150V<br>Tc = 25°C     |
|  |         | 10mA     | Tc = 125°C                            |
| Typical Thermal Resistance, Junction to Case | Rθ(j-c) | 2.2 °C/W | Per Leg<br>TO-220AB / TO-262 / TO-263 |
|  |         | 4.5 °C/W | ITO-220AB                             |

Note : 1.Mounted on P.C.B with copper pad size 20mm x 30mm, thickness 1.5mm  
 2.Reverse Surge 1.5A @ 0.004ms, 10 cycle  
 3.Repetitive Peak Reverse Current (IRRM) 0.5A @ Per Leg at tp = 2μs, 1kHz

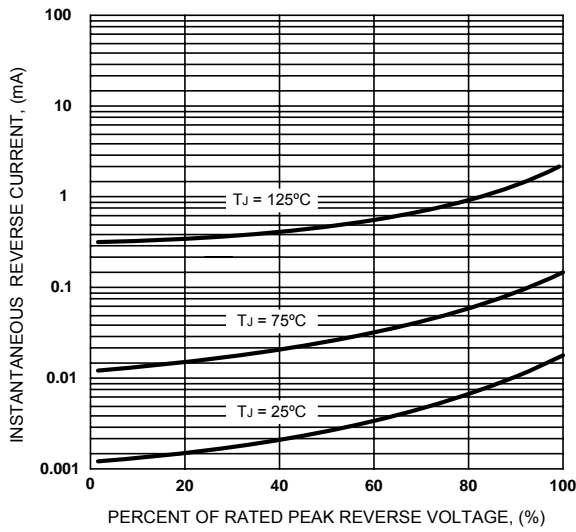
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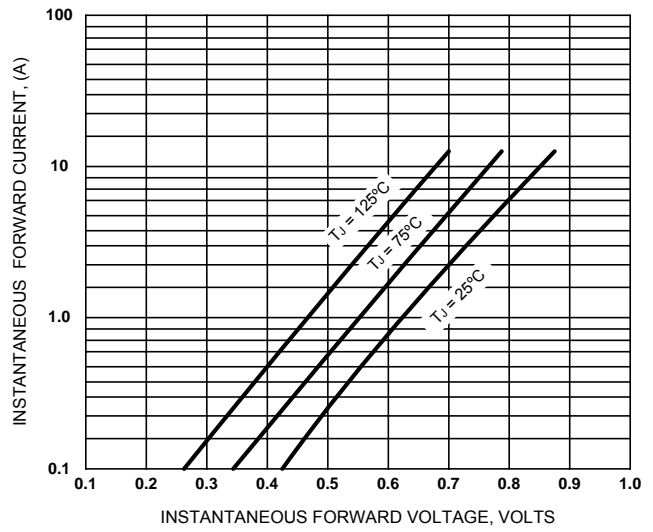
**Figure 1. Forward Current Derating Curve**



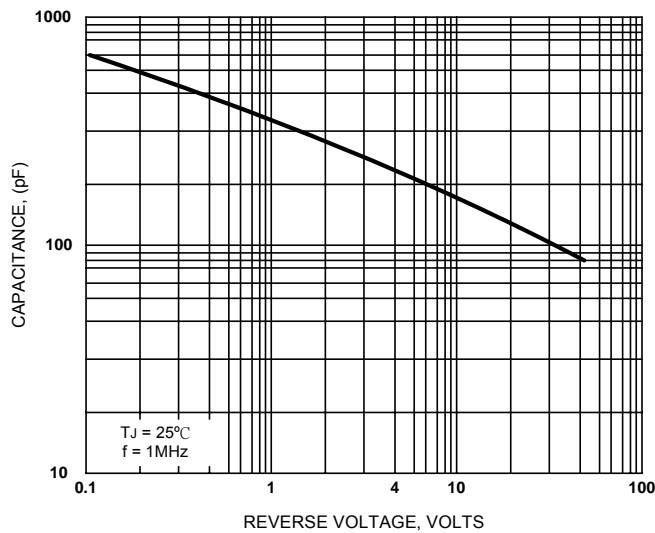
**Figure 2. Maximum Non-repetitive Surge Current**



**Figure 3. Typical Reverse Characteristics**



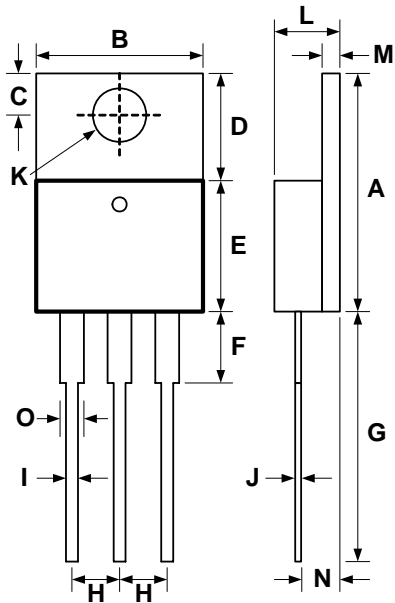
**Figure 4. Typical Forward Characteristics**



**Figure 5. Typical Junction Capacitance**

**MBR20B150CTH**

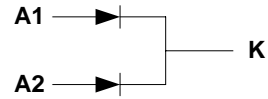
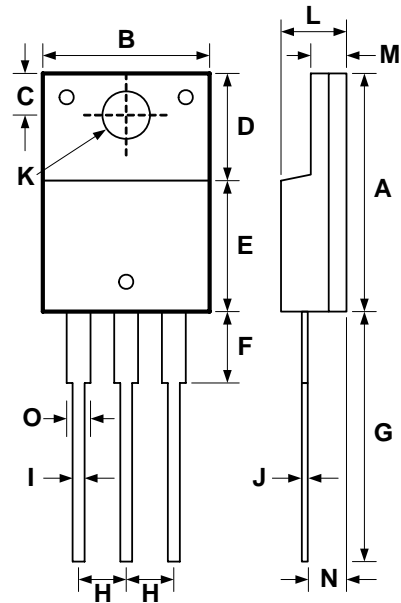
**TO-220AB**



| DIMENSIONS |        |      |             |       |      |
|------------|--------|------|-------------|-------|------|
| DIM        | INCHES |      | MILLIMETERS |       | NOTE |
|            | MIN    | MAX  | MIN         | MAX   |      |
| A          | .593   | .612 | 15.05       | 15.55 |      |
| B          | .392   | .411 | 9.95        | 10.45 |      |
| C          | .104   | .116 | 2.65        | 2.95  |      |
| D          | .244   | .264 | 6.20        | 6.70  |      |
| E          | .339   | .358 | 8.60        | 9.10  |      |
| F          | .154   | .173 | 3.90        | 4.40  |      |
| G          | .539   | .559 | 13.70       | 14.20 |      |
| H          | .096   | .108 | 2.45        | 2.75  |      |
| I          | .028   | .037 | 0.70        | 0.95  |      |
| J          | .012   | .020 | 0.30        | 0.50  |      |
| K          | .146   | .157 | 3.70        | 4.00  |      |
| L          | .175   | .187 | 4.45        | 4.75  |      |
| M          | .045   | .057 | 1.15        | 1.45  |      |
| N          | .098   | .114 | 2.50        | 2.90  |      |
| O          | .047   | .057 | 1.20        | 1.45  |      |

**MBR20B150FCTH**

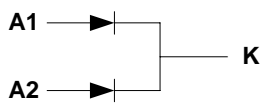
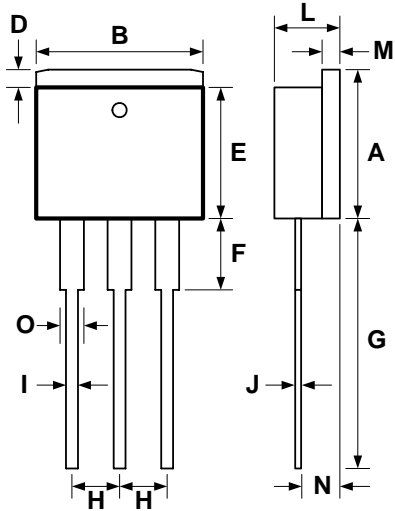
**ITO-220AB**



| DIMENSIONS |        |      |             |       |      |
|------------|--------|------|-------------|-------|------|
| DIM        | INCHES |      | MILLIMETERS |       | NOTE |
|            | MIN    | MAX  | MIN         | MAX   |      |
| A          | .585   | .604 | 14.85       | 15.35 |      |
| B          | .386   | .406 | 9.80        | 10.30 |      |
| C          | .100   | .112 | 2.55        | 2.85  |      |
| D          | .250   | .270 | 6.35        | 6.85  |      |
| E          | .325   | .344 | 8.25        | 8.75  |      |
| F          | .132   | .152 | 3.35        | 3.85  |      |
| G          | .520   | .539 | 13.20       | 13.70 |      |
| H          | .096   | .108 | 2.45        | 2.75  |      |
| I          | .020   | .028 | 0.50        | 0.70  |      |
| J          | .020   | .028 | 0.50        | 0.70  |      |
| K          | .120   | .132 | 3.05        | 3.35  |      |
| L          | .169   | .185 | 4.30        | 4.70  |      |
| M          | .114   | .130 | 2.90        | 3.30  |      |
| N          | .098   | .114 | 2.50        | 2.90  |      |
| O          | .043   | .055 | 1.10        | 1.40  |      |

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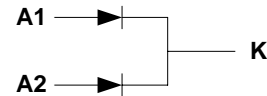
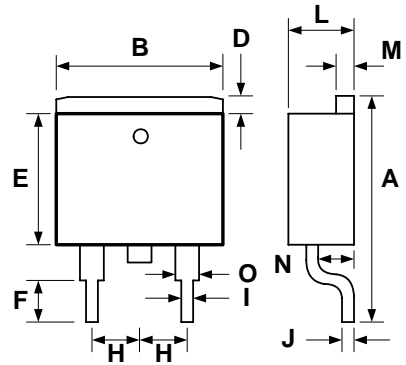
**T0-262**



| DIMENSIONS |        |      |             |       |      |
|------------|--------|------|-------------|-------|------|
| DIM        | INCHES |      | MILLIMETERS |       | NOTE |
|            | MIN    | MAX  | MIN         | MAX   |      |
| A          | .398   | .417 | 10.10       | 10.60 |      |
| B          | .391   | .411 | 9.95        | 10.45 |      |
| D          | .049   | .065 | 1.25        | 1.65  |      |
| E          | .338   | .358 | 8.60        | 9.10  |      |
| F          | .153   | .173 | 3.90        | 4.40  |      |
| G          | .539   | .559 | 13.70       | 14.20 |      |
| H          | .096   | .108 | 2.45        | 2.75  |      |
| I          | .027   | .037 | 0.70        | 0.95  |      |
| J          | .012   | .020 | 0.30        | 0.50  |      |
| L          | .175   | .187 | 4.45        | 4.75  |      |
| M          | .045   | .057 | 1.15        | 1.45  |      |
| N          | .098   | .114 | 2.50        | 2.90  |      |
| O          | .047   | .057 | 1.20        | 1.45  |      |

**MBR20B150CGH**

**T0-263**



| DIMENSIONS |        |      |             |       |      |
|------------|--------|------|-------------|-------|------|
| DIM        | INCHES |      | MILLIMETERS |       | NOTE |
|            | MIN    | MAX  | MIN         | MAX   |      |
| A          | .590   | .610 | 15.00       | 15.50 |      |
| B          | .391   | .411 | 9.95        | 10.45 |      |
| D          | .049   | .065 | 1.25        | 1.65  |      |
| E          | .338   | .358 | 8.60        | 9.10  |      |
| F          | .087   | .106 | 2.20        | 2.70  |      |
| H          | .096   | .108 | 2.45        | 2.75  |      |
| I          | .027   | .037 | 0.70        | 0.95  |      |
| J          | .012   | .020 | 0.30        | 0.50  |      |
| L          | .175   | .187 | 4.45        | 4.75  |      |
| M          | .045   | .057 | 1.15        | 1.45  |      |
| N          | .098   | .114 | 2.50        | 2.90  |      |
| O          | .047   | .057 | 1.20        | 1.45  |      |