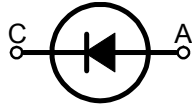


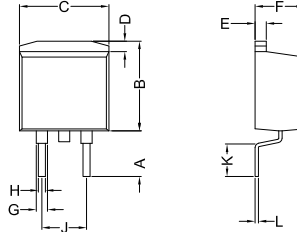
# MBRB2515L

## High T<sub>jm</sub> Low IRRM Schottky Barrier Diodes



A=Anode, C=Cathode, TAB=Cathode

### Dimensions TO-263(D<sup>2</sup>PAK)



| Dim. | Millimeter |       | Inches |       |
|------|------------|-------|--------|-------|
|      | Mln.       | Max.  | Mln.   | Max.  |
| A    | 5.00       | 5.60  | 0.197  | 0.220 |
| B    | 9.32       | 10.52 | 0.337  | 0.414 |
| C    | 9.60       | 10.40 | 0.378  | 0.409 |
| D    | 1.10       | 1.40  | 0.047  | 0.055 |
| E    | 1.20       | 1.50  | 0.051  | 0.059 |
| F    | 4.32       | 4.82  | 0.170  | 0.190 |
| G    | 1.15       | 1.65  | 0.045  | 0.065 |
| H    | 0.64       | 1.00  | 0.025  | 0.040 |
| J    | 4.80       | 5.20  | 0.177  | 0.200 |
| K    | 2.80       | 3.90  | 0.110  | 0.154 |
| L    | 0.30       | 0.45  | 0.012  | 0.017 |

|                  | V <sub>RRM</sub><br>V | V <sub>RMS</sub><br>V | V <sub>DC</sub><br>V |
|------------------|-----------------------|-----------------------|----------------------|
| <b>MBRB2515L</b> | 15                    | 10.5                  | 15                   |

| Symbol                         | Characteristics  | Maximum Ratings      | Unit |
|--------------------------------|--|----------------------|------|
| I <sub(av)< sub=""></sub(av)<> | Maximum Average Forward Rectified Current @T <sub>c</sub> =90°C  | 25                   | A    |
| I <sub>FSM</sub>               | Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)   | 150                  | A    |
| dv/dt                          | Voltage Rate Of Change (Rated V <sub>R</sub> )   | 10000                | V/us |
| V <sub>F</sub>                 | Maximum Forward Voltage At (Note 1)<br>I <sub>F</sub> =19A @T <sub>J</sub> =70°C<br>I <sub>F</sub> =25A @T <sub>J</sub> =70°C<br>I <sub>F</sub> =25A @T <sub>J</sub> =25°C | 0.28<br>0.42<br>0.45 | V    |
| I <sub>R</sub>                 | Maximum DC Reverse Current At Rated DC Blocking Voltage<br>@T <sub>J</sub> =25°C<br>@T <sub>J</sub> =100°C   | 15<br>200            | mA   |
| R <sub>θJC</sub>               | Typical Thermal Resistance (Note 3)  | 1.0                  | °C/W |
| C <sub>J</sub>                 | Typical Junction Capacitance Per Element (Note 2)  | 1150                 | pF   |
| T <sub>J</sub>                 | Operating Temperature Range  | -55 to +125          | °C   |
| T <sub>stg</sub>               | Storage Temperature Range  | -55 to +150          | °C   |

- NOTES: 1. 300us Pulse Width, Duty Cycle 2%.  
2. Measured At 1.0MHz And Applied Reverse Voltage of 4.0V DC.  
3. Thermal Resistance Junction To Case.

### FEATURES

- \* Guard ring for transient protection
- \* Low power loss, high efficiency
- \* High current capability, low V<sub>F</sub>
- \* High surge capacity
- \* For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- \* Ü[ PUA { ] |æ t

### MECHANICAL DATA

- \* Case: D<sup>2</sup>PAK molded plastic
- \* Polarity: As marked on the body
- \* Weight: 1.6 grams

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## High T<sub>jm</sub> Low IRRM Schottky Barrier Diodes

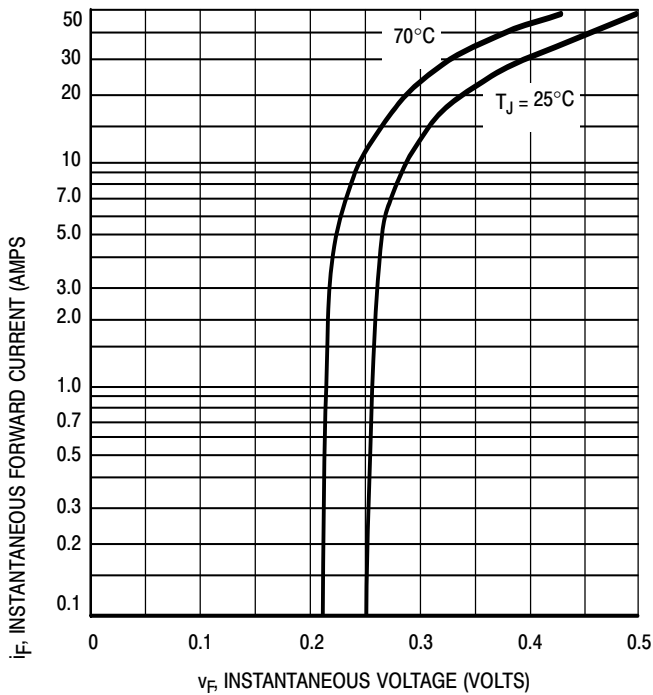


Figure 1. Typical Forward Voltage

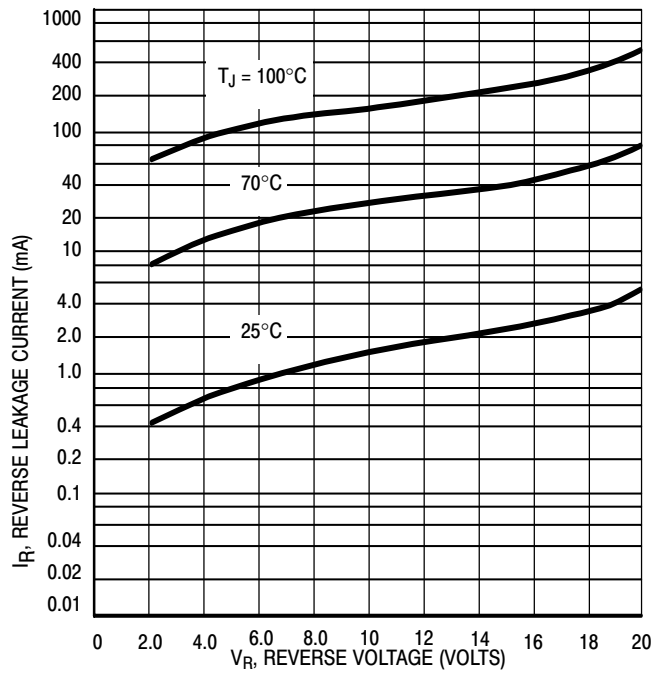


Figure 2. Typical Reverse Leakage Current

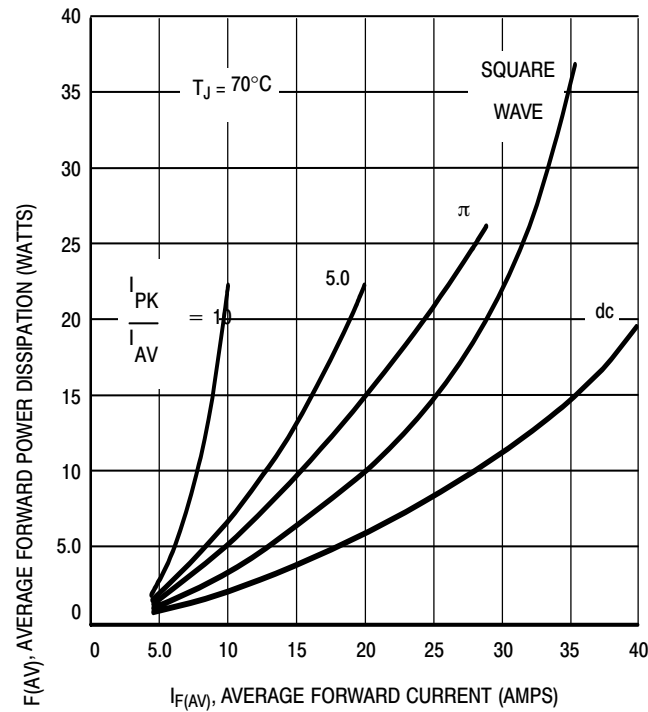


Figure 3. Typical Forward Power Dissipation

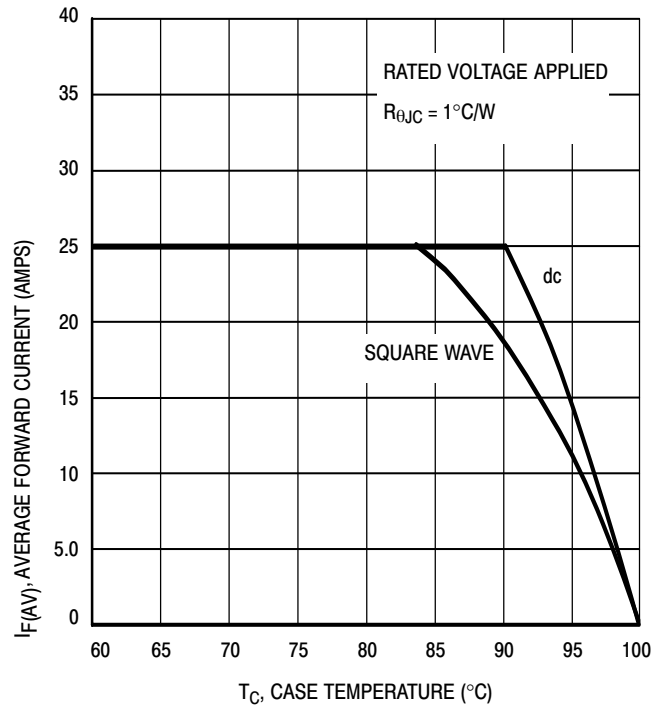


Figure 4. Current Derating, Case