



MBR30100DR

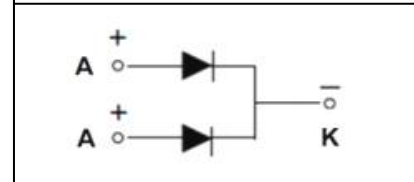
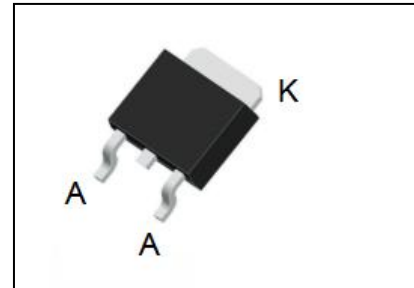
Dual High Voltage Schottky Rectifier

● Features:

- Common Cathode Structure
- Low Power Loss and High Efficiency
- Low Forward Voltage Drop
- High Surge Capability

● Application:

- High Frequency Switch
- Free Wheeling, and Polarity Protection Applications



Absolute Maximum Ratings (T_c=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|--------------------|--|-------------------------------|------|
| V _{RRM} | Maximum Repetitive Reverse Voltage | 100 | V |
| V _R | Maximum DC Reverse Voltage | 100 | V |
| I _{F(AV)} | Average Rectified Forward Current, T _c =120°C | 15(Per Leg) 30(Per Device) | A |
| I _{FSM} | Peak Forward Surge Current, 8.3ms Half Sine wave | 230 | A |
| T _j | Operating Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature Range | -55 to +150 | °C |

Thermal Characteristics (T_c=25°C unless otherwise noted)

| Symbol | Parameter | Max | Unit |
|------------------|--|-----|-------|
| R _{θJC} | Thermal Resistance, Junction to Case Per Leg | 2.5 | °C /W |

Electrical Characteristics (T_c=25°C unless otherwise noted)

| Symbol | Parameter | Test Conditions | Min | Max | Unit |
|------------------|------------------------------------|--|-----|------------------------------|------|
| V _{RRM} | Maximum Repetitive Reverse Voltage | I _R =250μA | 100 | | V |
| I _R | Reverse Current | V _R =100V T _c =25°C V _R =100V T _c =125°C | | 0.1 5 | mA |
| V _F | Forward Voltage | I _F =15A T _c =25°C I _F =15A T _c =125°C I _F =30A T _c =25°C I _F =30A T _c =125°C | | 0.92 0.82 1.02 0.92 | V |

V_F Typical Values: 0.82V@ I_F=15A, T_c=25°C

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

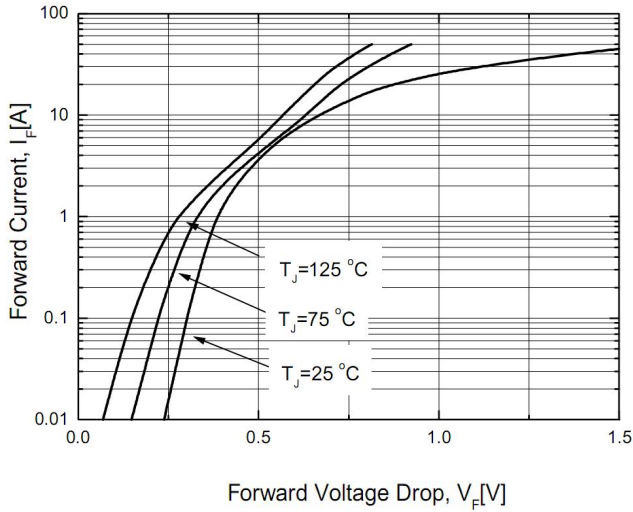


Figure 2. Reverse Leakage Current

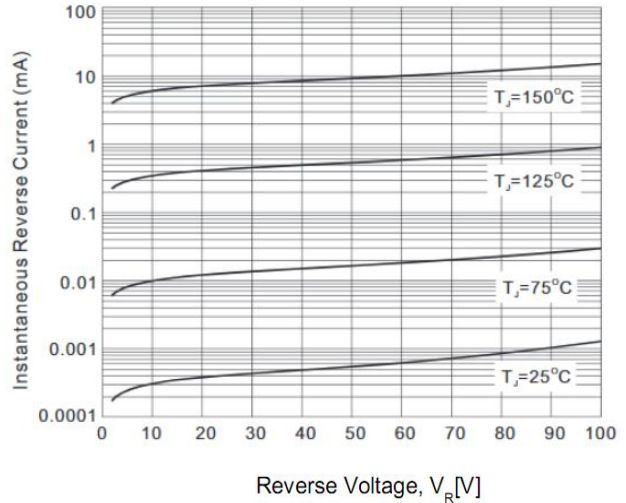


Figure 3. Junction Capacitance

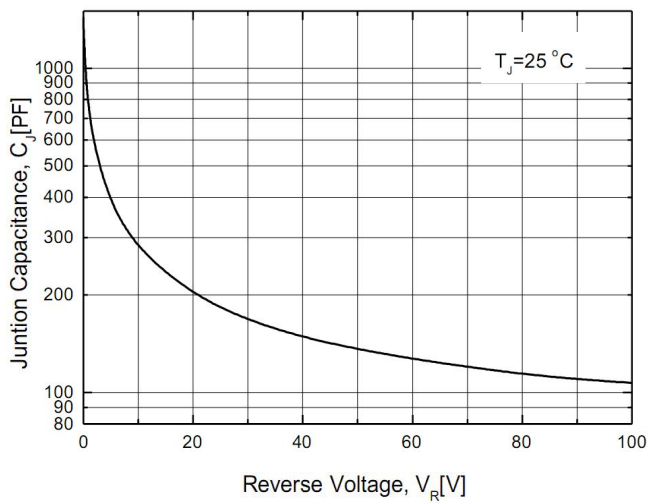
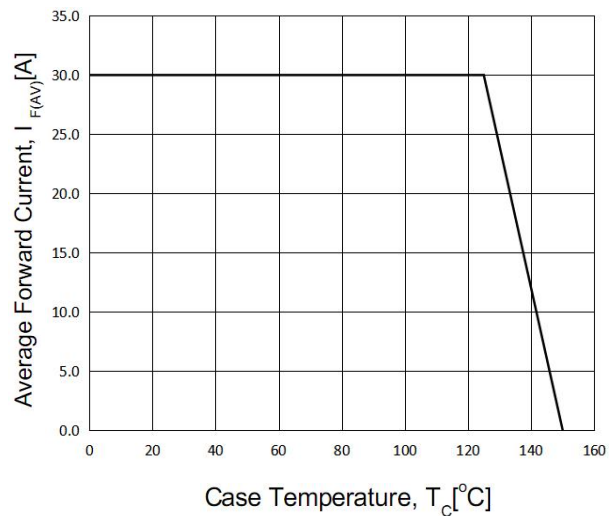


Figure 4. Power Derating





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TO-252 Package Dimensions

UNIT: mm

| SYMBOL | min | nom | max | SYMBOL | min | nom | max |
|--------|------|-----|------|--------------|------|------|-------|
| A | 6.40 | | 6.60 | D | 2.90 | | 3.10 |
| A1 | 5.20 | | 5.40 | D1 | 0.45 | | 0.55 |
| A2 | 4.40 | | 4.60 | D2 | 0.45 | | 0.55 |
| A3 | 4.40 | | 4.60 | e | | 2.30 | |
| A4 | 0 | | 0.15 | E | 2.20 | | 2.40 |
| A5 | 4.65 | | 4.95 | F | 0.45 | | 0.55 |
| B | 5.90 | | 6.20 | G | | 1.70 | |
| B1 | 1.57 | | 1.77 | L | 1.40 | | 1.60 |
| C | 0.90 | | 0.96 | θ (度) | 0 | | 10.00 |

