

Schottky Barrier Rectifier

MBR16150

FEATURES

- Low Forward Voltage
- 170°C Operating Junction Temperature
- Low Power Loss/High Efficiency
- High Surge Capacity

APPLICATIONS

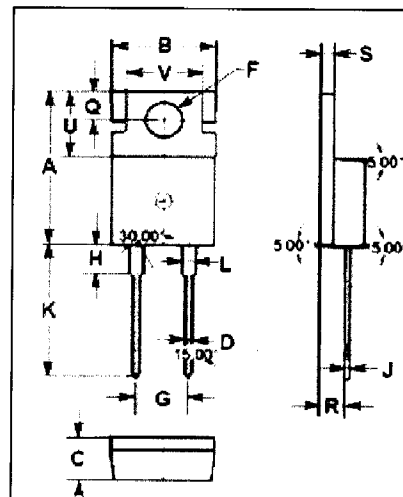
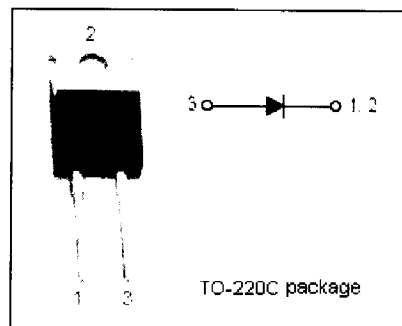
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

MECHANICAL CHARACTERISTICS

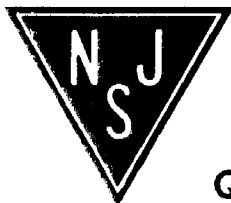
- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-------------|--|---------|------|
| V_{RRM} | DC Blocking Voltage | 150 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current (Rated V_R) $T_C=133^\circ\text{C}$ | 8 | A |
| I_{FSM} | Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz) | 210 | A |
| T_J | Junction Temperature | 170 | °C |
| T_{stg} | Storage Temperature Range | -50~170 | °C |



| DIM | mm | |
|-----|-------|-------|
| | MIN | MAX |
| A | 15.70 | 15.90 |
| B | 9.90 | 10.10 |
| C | 4.20 | 4.40 |
| D | 0.70 | 0.90 |
| F | 3.40 | 3.60 |
| G | 4.98 | 5.18 |
| H | 2.70 | 2.90 |
| J | 0.44 | 0.46 |
| K | 13.20 | 13.40 |
| L | 1.10 | 1.30 |
| Q | 2.70 | 2.90 |
| R | 2.50 | 2.70 |
| S | 1.29 | 1.31 |
| U | 6.45 | 6.65 |
| V | 8.66 | 8.86 |



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Schottky Barrier Rectifier**MBR16150****THERMAL CHARACTERISTICS**

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|-----|---------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 3.0 | $^{\circ}C/W$ |

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

| SYMBOL | PARAMETER | CONDITIONS | MAX | UNIT |
|--------|---------------------------------------|---------------------------------|------|---------|
| V_F | Maximum Instantaneous Forward Voltage | $I_F = 8A ; T_C = 25^{\circ}C$ | 0.92 | V |
| I_R | Maximum Instantaneous Reverse Current | $V_R = 150V, T_C = 25^{\circ}C$ | 10 | μA |