

Schottky Barrier Rectifier

MBRB4030

FEATURES

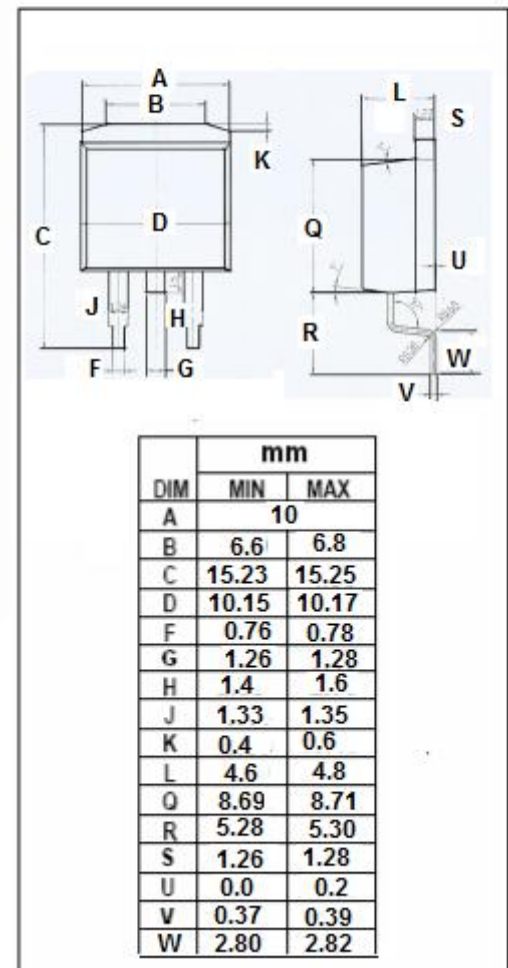
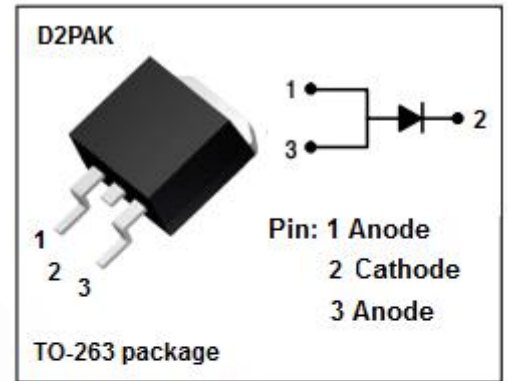
- Schottky barrier chip
- Low Power Loss, High Efficiency
- Guard ring for transient protection
- High Operating Junction Temperature
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For use in high frequency rectifier of switching mode power supplies, freewheeling diodes, DC-to-DC converters or polarity protection application.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|--------------------|---|---------|------|
| VRRM VRMS VR | Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage | 30 | V |
| IF(AV) | Average Rectified Forward Current | 40 | A |
| IFSM | Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions | 300 | A |
| TJ | Junction Temperature | -65~175 | °C |
| Tstg | Storage Temperature Range | -65~175 | °C |



Schottky Barrier Rectifier**MBRB4030****THERMAL CHARACTERISTICS**

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|-----|---------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.0 | $^{\circ}C/W$ |

ELECTRICAL CHARACTERISTICS

| SYMBOL | PARAMETER | | | CONDITIONS | TYP | MAX | UNIT |
|--------|-----------------|---------------|---------|---------------------------------|-----|------|---------|
| V_F | Maximum Voltage | Instantaneous | Forward | $I_F=20A ; T_j=25^{\circ}C$ | | 0.46 | V |
| | | | | $I_F=20A ; T_j=150^{\circ}C$ | | 0.34 | |
| | | | | $I_F=80A ; T_j=25^{\circ}C$ | | 0.55 | |
| | | | | $I_F=80A ; T_j=150^{\circ}C$ | | 0.45 | |
| I_R | Maximum Current | Instantaneous | Reverse | $V_R=V_{RWM}; T_j=25^{\circ}C$ | | 35 | μA |
| | | | | $V_R=V_{RWM}; T_j=125^{\circ}C$ | | 150 | mA |