

Schottky Barrier Rectifier

HBR20150S

FEATURES

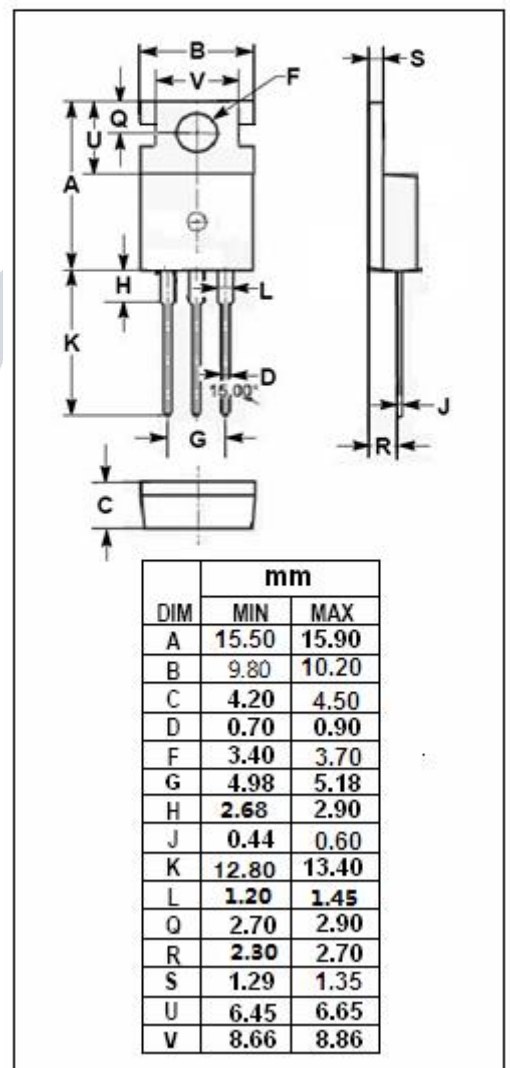
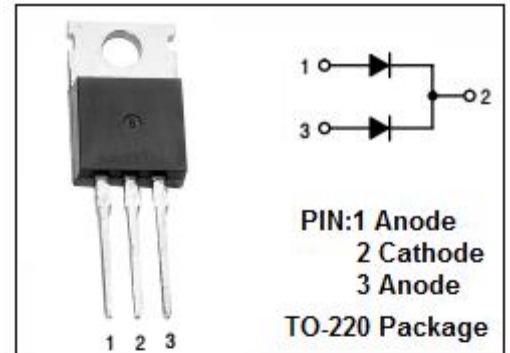
- With TO-220 packaging
- High junction temperature capability
- Low forward voltage drop
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|--|--|---------|------|
| V _{RRM} V _{RWM} V _R | Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | 150 | V |
| I _{F(AV)} | Average Rectified Forward Current@T _c =150°C | 20 | A |
| I _{FSM} | Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions) t _p =5 μs sine | 180 | A |
| T _J | Junction Temperature | 175 | °C |
| T _{stg} | Storage Temperature Range | -40~150 | °C |



Schottky Barrier Rectifier**HBR20150S****THERMAL CHARACTERISTICS**

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|-----|---------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.5 | $^{\circ}C/W$ |

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 1%)

| SYMBOL | PARAMETER | CONDITIONS | MAX | UNIT |
|--------|---------------------------------------|--------------------------------------|------|------|
| V_F | Maximum Instantaneous Forward Voltage | $I_F = 10A ; T_c = 25^{\circ}C$ | 0.9 | V |
| | | $I_F = 10A ; T_c = 125^{\circ}C$ | 0.75 | |
| I_R | Maximum Instantaneous Reverse Current | $V_R = V_{RWM} ; T_c = 25^{\circ}C$ | 0.01 | mA |
| | | $V_R = V_{RWM} ; T_c = 125^{\circ}C$ | 5 | |

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