

# Schottky Barrier Rectifier

# SBR3045CT

### FEATURES

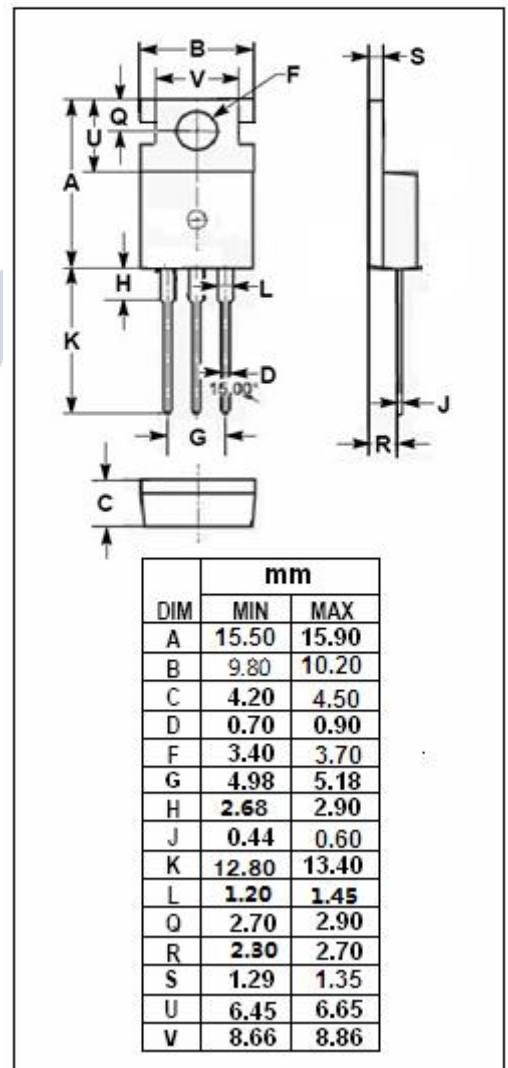
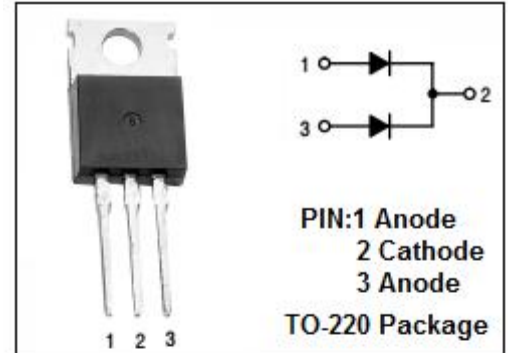
- With TO-220 packaging
- High junction temperature capability
- Low forward voltage drop
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

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

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

| SYMBOL   | PARAMETER  | VALUE   | UNIT |
|--|--|---------|------|
| V <sub>R</sub> RM<br>V <sub>R</sub> WM<br>V <sub>R</sub> | Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                 | 45      | V    |
| I <sub>F</sub> (AV)                                      | Average Rectified Forward Current@Tc=130°C   | 30      | A    |
| I <sub>FSM</sub>   | Nonrepetitive Peak Surge Current<br>( 8.3ms single half sine-wave superimposed on rated load conditions ) tp=5 μs sine | 200     | A    |
| T <sub>J</sub>   | Junction Temperature   | 150     | °C   |
| T <sub>stg</sub>   | Storage Temperature Range  | -65~150 | °C   |



**Schottky Barrier Rectifier****SBR3045CT****THERMAL CHARACTERISTICS**

| SYMBOL        | PARAMETER                            | MAX | UNIT |
|---------------|--------------------------------------|-----|------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 2   | °C/W |

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

| SYMBOL | PARAMETER                             | CONDITIONS                          | MAX  | UNIT |
|--------|---------------------------------------|-------------------------------------|------|------|
| $V_F$  | Maximum Instantaneous Forward Voltage | $I_F = 15A ; T_c = 25^\circ C$      | 0.55 | V    |
|        |                                       | $I_F = 15A ; T_c = 25^\circ C$      | 0.5  |      |
| $I_R$  | Maximum Instantaneous Reverse Current | $V_R = V_{RWM} ; T_c = 25^\circ C$  | 0.5  | mA   |
|        |                                       | $V_R = V_{RWM} ; T_c = 100^\circ C$ | 100  |      |

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