

# Schottky Barrier Rectifier

## DSA30C150PB

### FEATURES

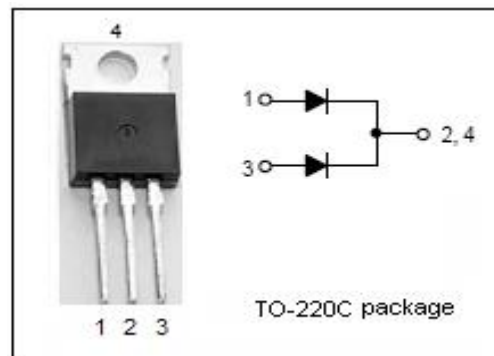
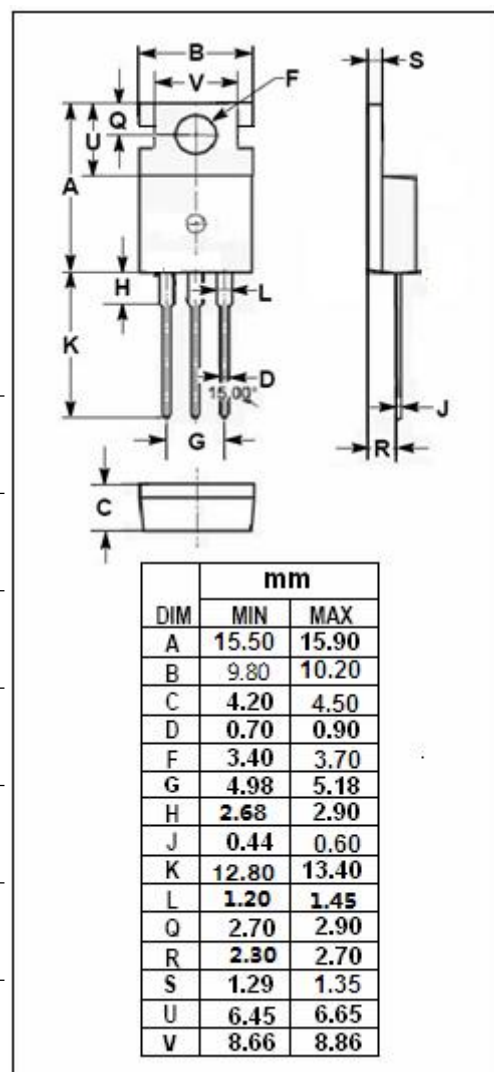
- Dual Rectifier Conduction, Positive Center Tap
- Low Power Loss/High Efficiency
- High Current Capability, Low Forward Voltage Drop
- High Surge Capacity
- Guarding for Overvoltage protection
- For AC/DC switching adaptor and other switching power supply applications.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable

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

| SYMBOL      | PARAMETER                                                                                                | VALUE   | UNIT                   |
|-------------|----------------------------------------------------------------------------------------------------------|---------|------------------------|
| $V_{RRM}$   | Peak Repetitive Reverse Voltage                                                                          | 150     | V                      |
| $I_{F(AV)}$ | Average Rectified Forward Current<br>$T_C=100^{\circ}\text{C}$                                           | 30      | A                      |
| $I_{FSM}$   | Nonrepetitive Peak Surge Current<br>8.3ms single half sine-wave superimposed<br>on rated load conditions | 330     | A                      |
| $T_J$       | Junction Temperature                                                                                     | 150     | $^{\circ}\text{C}$     |
| $T_{stg}$   | Storage Temperature Range                                                                                | -55~175 | $^{\circ}\text{C}$     |
| $dv/dt$     | Voltage Rate of Change (Rated $V_R$ )                                                                    | 10,000  | $\text{V}/\mu\text{s}$ |



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## MBR30150CT

## THERMAL CHARACTERISTICS

| SYMBOL        | PARAMETER                            | MAX  | UNIT |
|---------------|--------------------------------------|------|------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.75 | °C/W |

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

| SYMBOL | PARAMETER                             | CONDITIONS                                                                                                                             | MAX                          | UNIT    |
|--------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------|
| $V_F$  | Maximum Instantaneous Forward Voltage | $I_F = 15A ; T_C = 25^\circ C$<br>$I_F = 15A ; T_C = 125^\circ C$<br>$I_F = 30A ; T_C = 25^\circ C$<br>$I_F = 30A ; T_C = 125^\circ C$ | 0.89<br>0.75<br>1.02<br>0.89 | V       |
| $I_R$  | Maximum Instantaneous Reverse Current | Rated DC Voltage, $T_C = 25^\circ C$                                                                                                   | 250                          | $\mu A$ |

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