

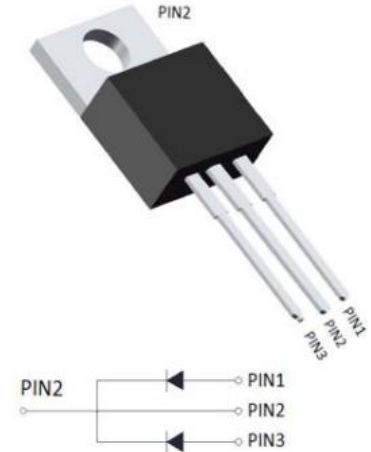


# WSR15030CT

## SCHOTTKY BARRIER RECTIFIER

### Features

- 30A Schottky barrier diode
- Schottky barrier rectifier
- Excellent high temperature stability
- Low forward voltage
- High forward surge capability
- High current capability
- Extremely low thermal resistance



### Mechanical Data

- Case: TO-220 molded plastic package
- Polarity: As marked

### Absolute Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER                                                                         | SYMBOL    | WSR15030CT       | UNIT |
|-----------------------------------------------------------------------------------|-----------|------------------|------|
| Repetitive Peak Reverse Voltage                                                   | $V_{RRM}$ | 150              | V    |
| Average Rectified Output Current<br>@60Hz -sine wave, R- load, Ta=25°C            | $I_O$     | 15(per leg)      | A    |
|                                                                                   |           | 30(total device) |      |
| Forward Surge Current (Non-repetitive)<br>@ 60Hz Half-sine wave, 1 cycle, Ta=25°C | $I_{FSM}$ | 200              | A    |
| Storage Temperature                                                               | $T_{stg}$ | -55 ~+150        | °C   |
| Junction Temperature                                                              | $T_j$     | -55 ~+150        | °C   |

### Electronics characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER                                            | SYMBOL | TEST CONDITIONS                          | WSR15030CT |     | UNIT |
|------------------------------------------------------|--------|------------------------------------------|------------|-----|------|
|                                                      |        |                                          | Typ        | Max |      |
| Maximum instantaneous forward voltage drop per diode | $V_F$  | $I_F = 15.0A$ (per leg)                  | 0.86       | 0.9 | V    |
| Leakage Current                                      | $I_R$  | $V_R = V_{RRM}$ ,<br>$T_j = 25^\circ C$  | /          | 0.1 | mA   |
|                                                      |        | $V_R = V_{RRM}$ ,<br>$T_j = 125^\circ C$ | 5          | /   |      |

Thermal Characteristics ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

| PARAMETER          |                          | SYMBOL           | WSR15030CT | UNIT                        |
|--------------------|--------------------------|------------------|------------|-----------------------------|
| Thermal Resistance | Between Junction to Case | $R_{\theta J-C}$ | 2.0        | $^{\circ}\text{C}/\text{W}$ |

## Typical characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

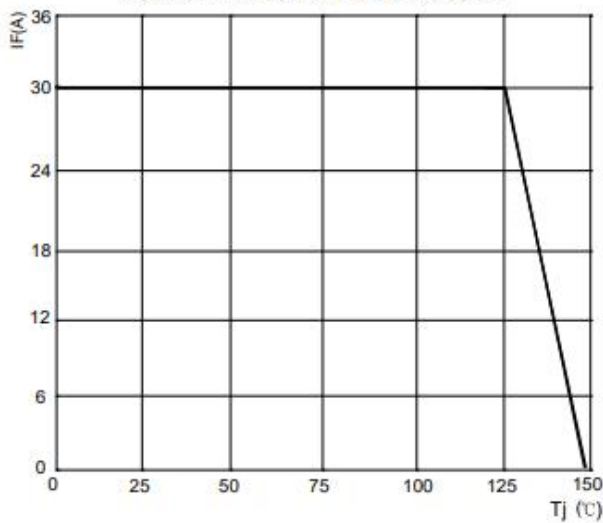


FIG.2: TYPICAL FORWARD CHARACTERISTICS

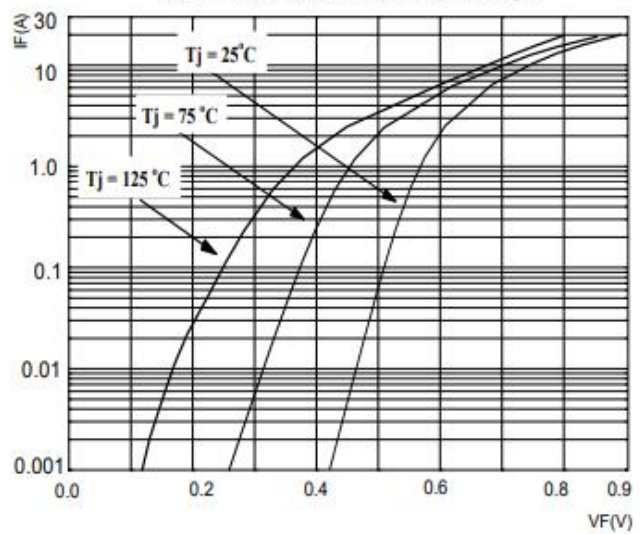


FIG.3: TOTAL CAPACITANCE DERATING CURVE

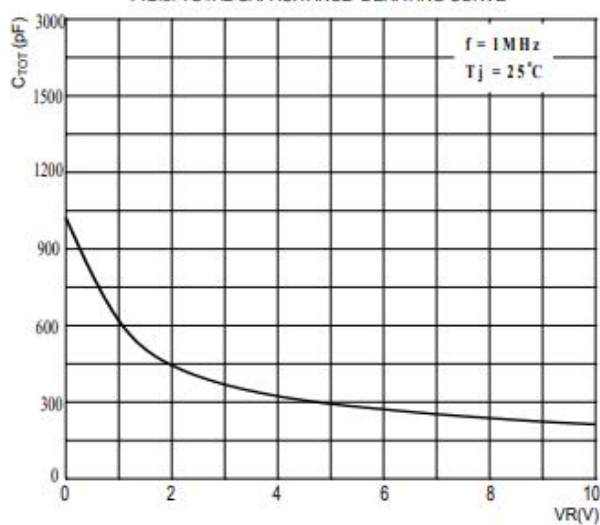
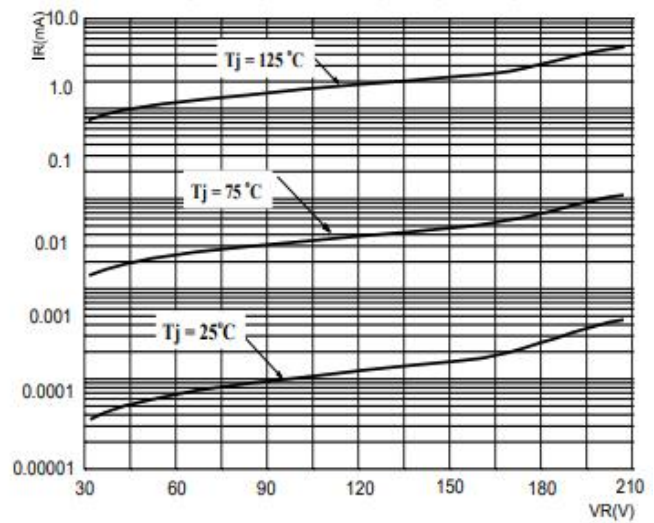
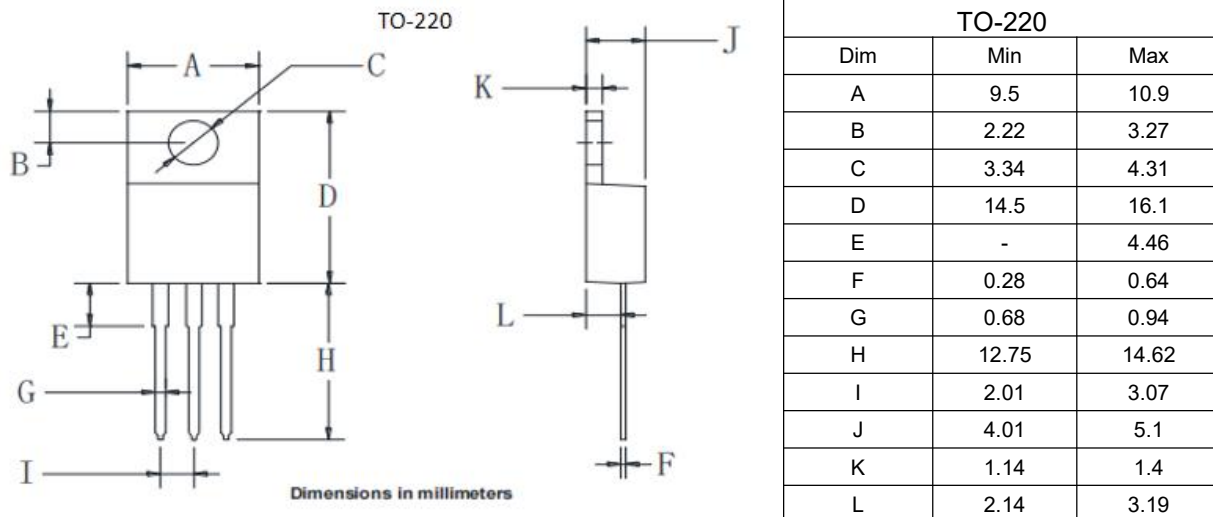


FIG.4: TYPICAL REVERSE CHARACTERISTICS



## Outline Drawing



## Marking Code

|              |            |
|--------------|------------|
| Part Number  | WSR15030CT |
| Marking Code | MBR30150CT |

## Package Information

Quantity per tube: 50pcs

## Contact Information

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For additional information, please contact your local Sales Representative.

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*Specifications are subject to change without notice.*

*The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.*

*Users should verify actual device performance in their specific applications.*