

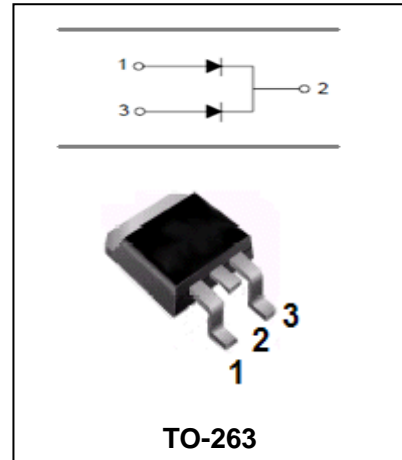
## Schottky Barrier Rectifier MBRB1080CT---MBRB10100CT

### FEATURES

- High Surge Capacity.
- For Use In Low Voltage,High Frequency Inverters,Free Wheeling,And Polarity Protection Applications.
- Metal Silicon Junction,Majority Carrier Conduction.
- High Current Capacity,Low Forward Voltage Drop.
- Guard Ring for Over Voltage Protection.



Lead-free



### MAXIMUM RATING operating temperature range applies unless otherwise specified

| Symbol          | Parameter  | MBRB1080CT  | MBRB10100CT | Unit          |
|-----------------|--|-------------|-------------|---------------|
| $V_{RRM}$       | Recurrent Peak Reverse Voltage   | 80          | 100         | V             |
| $V_{RMS}$       | RMS Reverse Voltage  | 56          | 70          | V             |
| $V_{DC}$        | DC Blocking Voltage  | 80          | 100         | V             |
| $I_{F(AV)}$     | Average Forward Rectified total device Current @ $T_A=100^{\circ}C$ per leg      | 10          | 5.0         | A             |
| $I_{FSM}$       | Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimosed on Rated Load | 120         |             | A             |
| $R_{\theta JC}$ | Typical Thermal Resistance Junction to Case                                      | 4.4         |             | $^{\circ}C/W$ |
| $T_j T_{stg}$   | Operating Junction and Storage Temperature Range                                 | -55 to +150 |             | $^{\circ}C$   |



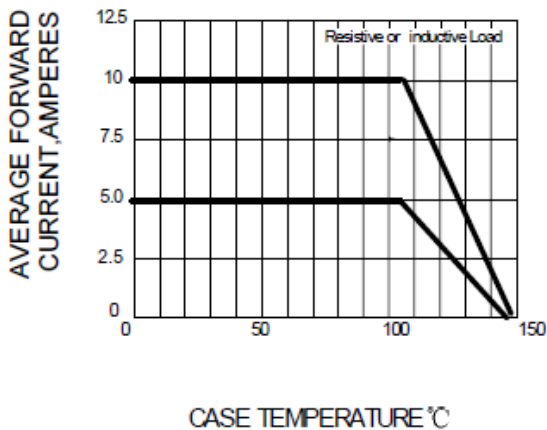
**Schottky Barrier Rectifier MBRB1080CT---MBRB10100CT**

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

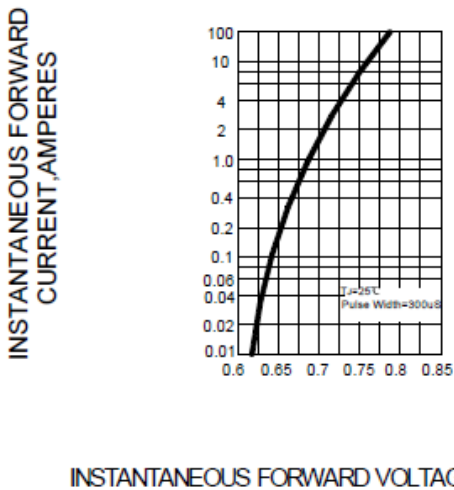
| Parameter            | Symbol | Test conditions   | TYP | MAX          | UNIT |
|----------------------|--------|---|-----|--------------|------|
| Reverse Current      | $I_R$  | $V_R=V_{RRM}, T_A=25^\circ\text{C}$<br>$V_R=V_{RRM}, T_A=125^\circ\text{C}$     | -   | 0.1<br>50    | mA   |
| Forward Voltage      | $V_F$  | $I_F=5\text{A}, T_A=125^\circ\text{C}$<br>$I_F=5\text{A}, T_A=25^\circ\text{C}$ | -   | 0.75<br>0.85 | V    |
| Junction Capacitance | $C_j$  | $V_R=4\text{V}, f=1\text{MHz}$  | 300 | -            | pF   |

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

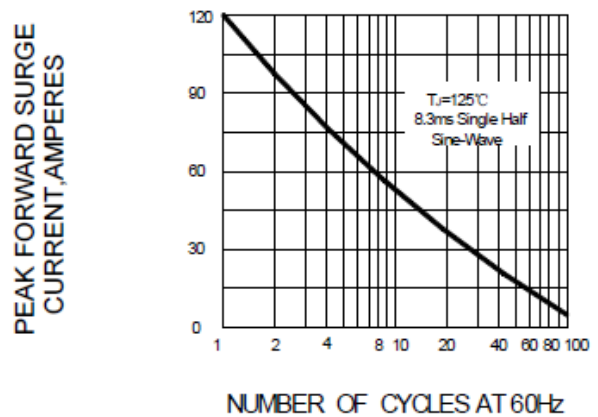
**FIG.1 – FORWARD CURRENT DERATING CURVE**



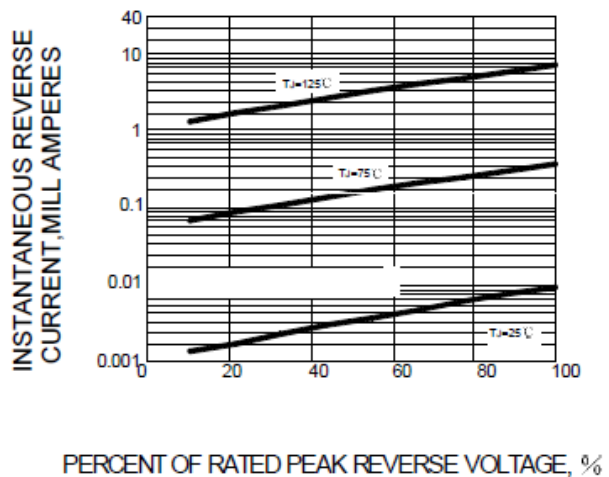
**FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PERLEG**



**FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



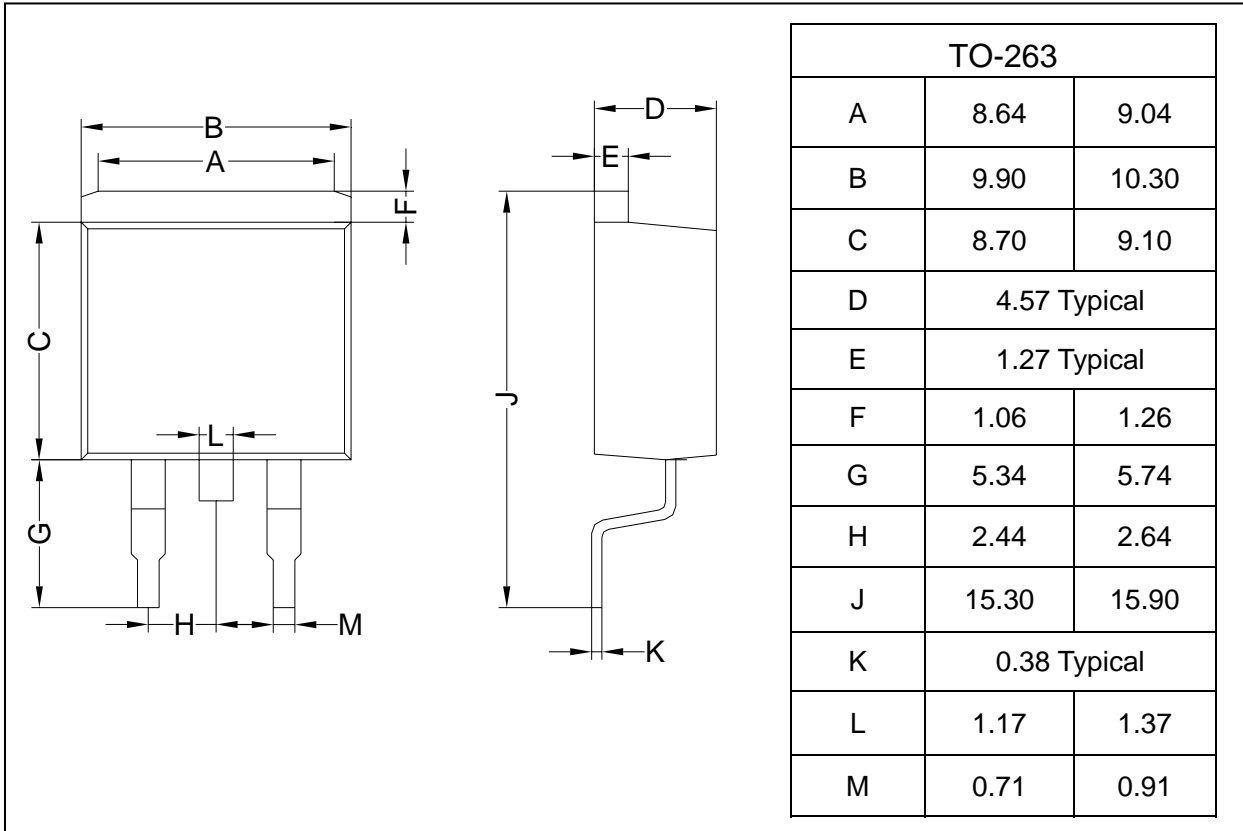


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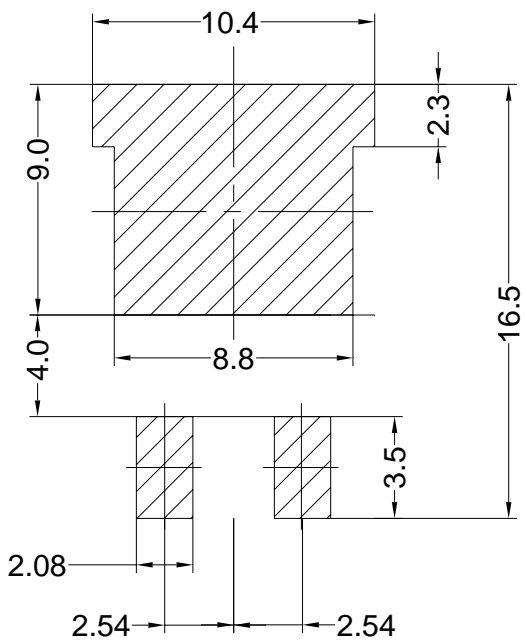
**PACKAGE OUTLINE**

Plastic surface mounted package

TO-263



**SOLDERING FOOTPRINT**



Unit:mm