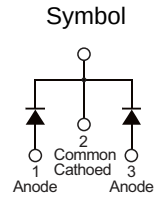


#### ■ PRODUCT CHARACTERISTICS

|               |        |
|---------------|--------|
| VR(@IC=0.5mA) | 200V   |
| VF(Typ@IF=5A) | 0.85V  |
| IR(@VR=200V)  | 0.05mA |
| ID            | 10A    |

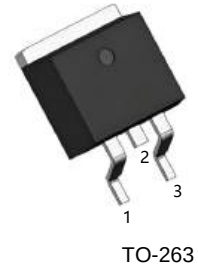


#### ■ MECHANICAL CHARACTERISTICS

- \* Case: epoxy,molded
- \* Finish:all external surfaces corrosion resistant and terminal
- \* Leads are readily solderable
- \* Leads temperature for soldering purposes:  
260°C Max for 10 seconds

#### ■ FEATURES

- \* Low forward voltage
- \* Low power loss/high efficiency
- \* Low stored charge majority carrier conduction
- \* Pb free package are available



#### ■ ORDER INFORMATION

| Order codes  |           | Package | Packing        |
|--------------|-----------|---------|----------------|
| Halogen-free | Halogen   |         |                |
| N/A          | MBR10200E | TO-263  | 800pieces/Reel |

#### ■ MAXIMUM RATINGS (Each diode leg)

| Parameter                                                                                        |         | Symbol         | Value        | Unit |
|--------------------------------------------------------------------------------------------------|---------|----------------|--------------|------|
| Peak repetitive reverse voltage                                                                  |         | $V_{RRM}$      | 200          | V    |
| Average rectified output current                                                                 | Total   | $I_o$          | 10           | A    |
|                                                                                                  | Per leg |                | 5            | A    |
| Non-repetitive peak forward surge current 8.3ms single half sine-wave superimposed on reate load |         | $I_{FSM}$      | 150          | A    |
| Operating and storage temperature range                                                          |         | $T_J, T_{STG}$ | -55 to + 175 | °C   |

#### ■ ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ Unless otherwise specified)

| Parameter                              | Symbol           | Conditions                                 | Min | Typ  | Max  | Unit |
|----------------------------------------|------------------|--------------------------------------------|-----|------|------|------|
| Peak repetitive reverse voltage        | $B_V$            | $I_C=0.5\text{mA}, T_J=25^{\circ}\text{C}$ | 200 | -    | -    | V    |
| Forward voltage drop                   | $V_F$            | $I_F=5\text{A}, T_J=25^{\circ}\text{C}$    | -   | 0.85 | 0.9  | V    |
| Typical junction capacitance per diode | $C_J$            | $V_R=4\text{V}, f=1\text{MHz}$             | -   | 105  | -    | pF   |
| Leakage current                        | $I_R$            | $V_R=200\text{V}, T_J=25^{\circ}\text{C}$  | -   | -    | 0.05 | mA   |
|                                        |                  | $V_R=200\text{V}, T_J=125^{\circ}\text{C}$ | -   | -    | 20   |      |
| Typical thermal resistance per diode   | $R_{\theta J-A}$ |                                            | -   | 50   | -    | °C/W |
|                                        | $R_{\theta J-C}$ |                                            | -   | 2    | -    |      |

■ TYPICAL CHARACTERISTICS

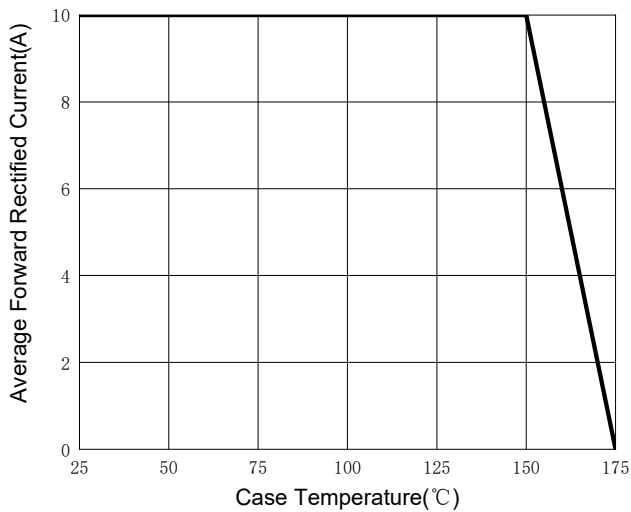


Fig. 1: Forward Current Derating Curve

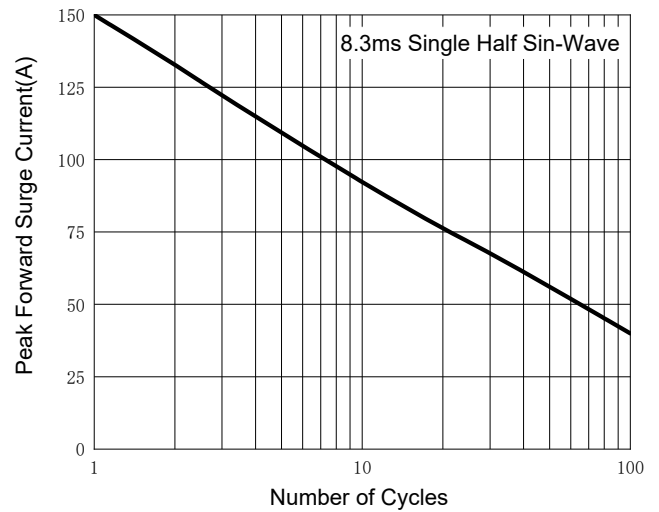


Fig. 2: Forward Surge Current Capability (Per Diode)

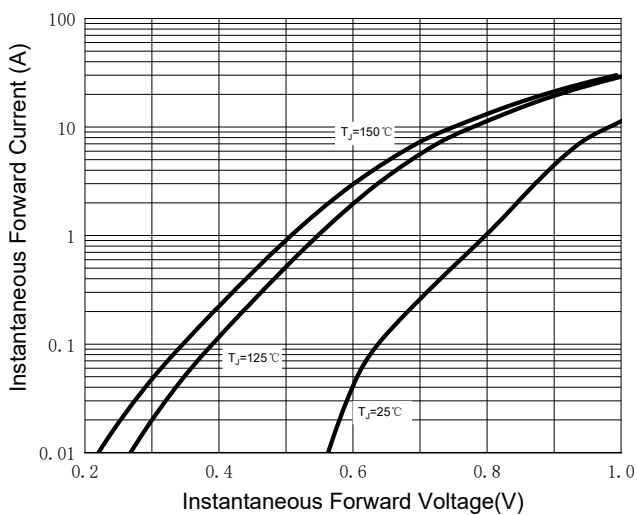


Fig. 3: Typical Instantaneous Forward Characteristics (Per Diode)

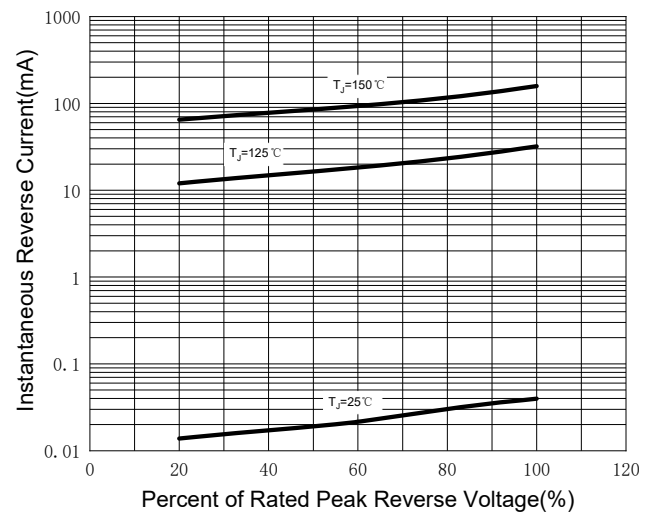


Fig. 4: Typical Reverse Leakage Characteristics (Per Diode)

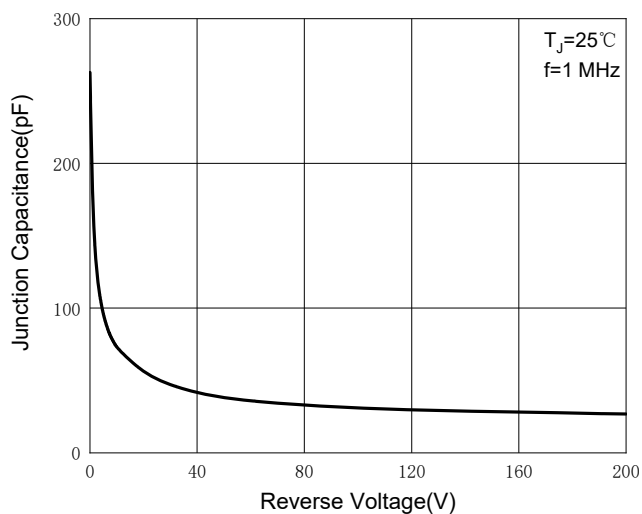


Fig. 5: Typical Junction Capacitance (Per Diode)

### ■ TO-263 PACKAGE OUTLINE DIMENSIONS

