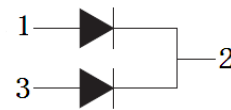
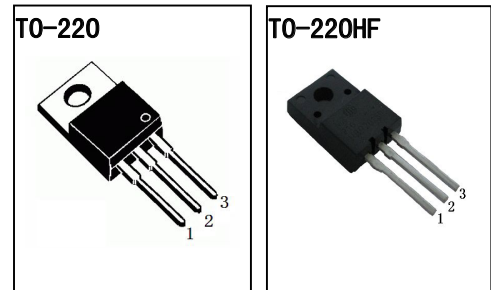


Schottky Diodes

MBR20100V

■ Features

- Common cathode structure
- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---|-----------------|------------|------|
| Reverse Voltage | V_{RM} | 100 | V |
| DC blocking voltage | V_{DC} | 100 | |
| Average Forward Current (Tc=125°C TO-220) | I_{FAV} | 20 | A |
| (Tc=125°C TO-220HF) | | 10 | |
| Peak Forward Surge Current | I_{FSM} | 200 | |
| Thermal Resistance Junction to Case | $R_{\theta JC}$ | 1.9 | °C/W |
| TO-220 TO-220HF | | 2.5 | |
| Junction Temperature | T_J | 175 | °C |
| Storage Temperature range | T_{stg} | -40 to 150 | |

■ Electrical Characteristics Ta = 25°C

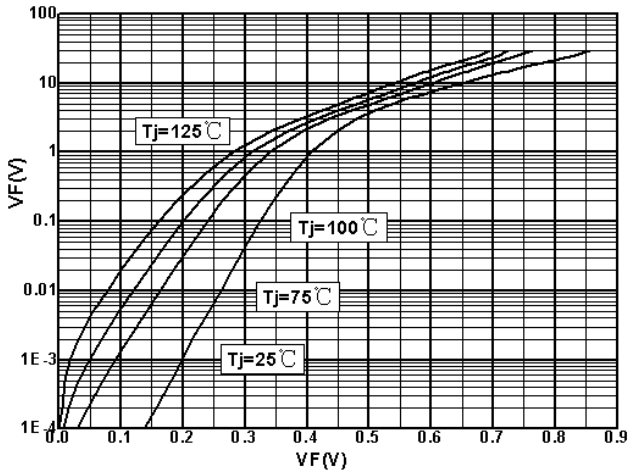
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------------|--------|---|-----|------|------|------|
| Forward voltage | V_F | $I_F=10\text{ A}$ $T_J=25^\circ\text{C}$ | | 0.65 | 0.68 | V |
| | | $I_F=10\text{ A}$ $T_J=125^\circ\text{C}$ | | 0.54 | 0.58 | |
| | | $I_F=15\text{ A}$ $T_J=25^\circ\text{C}$ | | 0.73 | 0.78 | |
| | | $I_F=15\text{ A}$ $T_J=125^\circ\text{C}$ | | 0.6 | 0.65 | |
| Reverse voltage leakage current | I_R | $V_R=V_{RRM}$ $T_J=25^\circ\text{C}$ | | | 50 | uA |
| | | $V_R=V_{RRM}$ $T_J=125^\circ\text{C}$ | | | 30 | mA |

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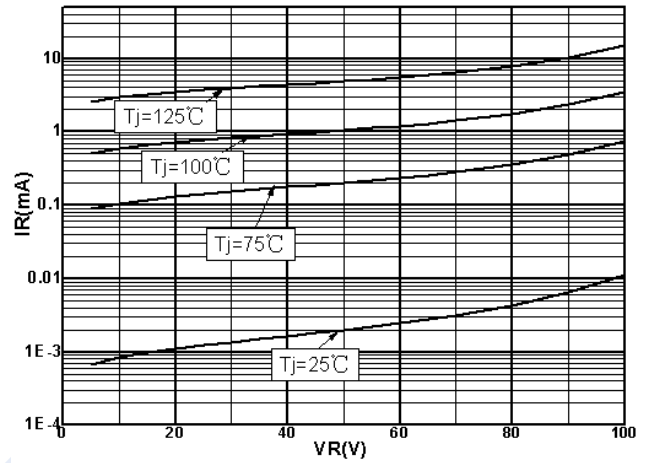
MBR20100V

■ Typical Characteristics

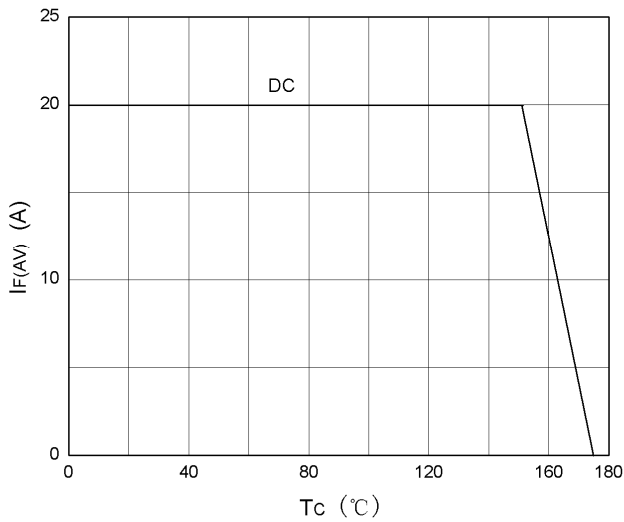
I_F vs V_F



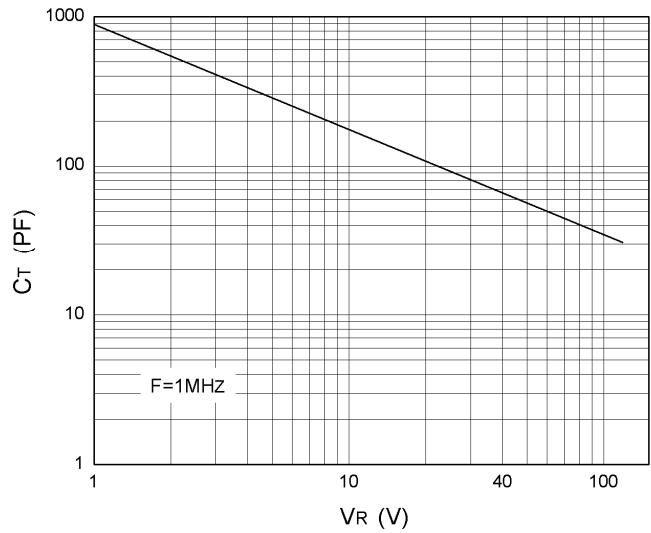
I_R vs V_R



$I_F(AV)$ vs T_c



C_T vs V_R



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MBR20100V

■ Package size chart

