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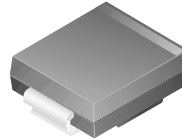
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# MBRS320

## Features

- Compact surface mount with J-bend leads (SMC)
- 3.0 Watt Power Dissipation package
- 3.0 Ampere, forward voltage less than 500 mV



**SMC (D0-214AB)**  
Color Band Denotes Cathode  
Mark: B32

## Schottky Rectifier

### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

| Symbol      | Parameter                                                                                 | Value       | Units            |
|-------------|-------------------------------------------------------------------------------------------|-------------|------------------|
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage                                                        | 20          | V                |
| $I_{F(AV)}$ | Average Rectified Forward Current @ $T_L = 100^\circ\text{C}$<br>$T_L = 90^\circ\text{C}$ | 3.0<br>4.0  | A<br>A           |
| $I_{FSM}$   | Non-repetitive Peak Forward Surge Current<br>(Half wave, single phase, 60 Hz)             | 80          | A                |
| $T_{stg}$   | Storage Temperature Range                                                                 | -65 to +150 | $^\circ\text{C}$ |
| $T_J$       | Operating Junction Temperature                                                            | -65 to +125 | $^\circ\text{C}$ |

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

| Symbol          | Parameter                            | Value | Units                     |
|-----------------|--------------------------------------|-------|---------------------------|
| $R_{\theta JL}$ | Thermal Resistance, Junction to Lead | 11    | $^\circ\text{C}/\text{W}$ |

### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

| Symbol | Parameter                                                                                | Value     | Units    |
|--------|------------------------------------------------------------------------------------------|-----------|----------|
| $V_F$  | Forward Voltage @ $I_F = 3.0\text{A}$ ,                                                  | 500       | mV       |
| $I_R$  | Reverse Current @ $V_R = 20\text{V}$ ,<br>$V_R = 20\text{V}$ , $T_A = 100^\circ\text{C}$ | 2.0<br>20 | mA<br>mA |

Typical Characteristics

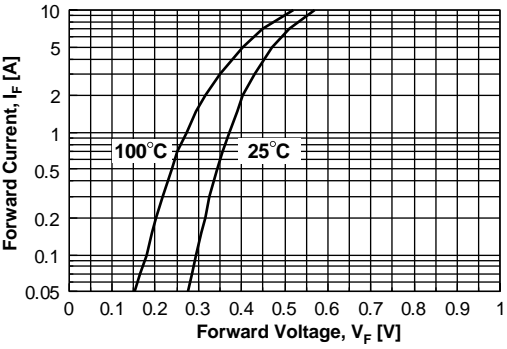


Figure 1. Forward Voltage Characteristics

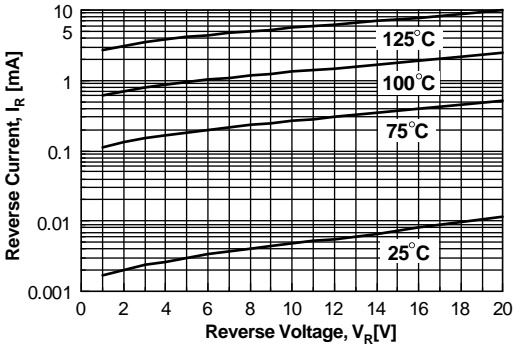


Figure 2. Reverse Current vs Reverse Voltage

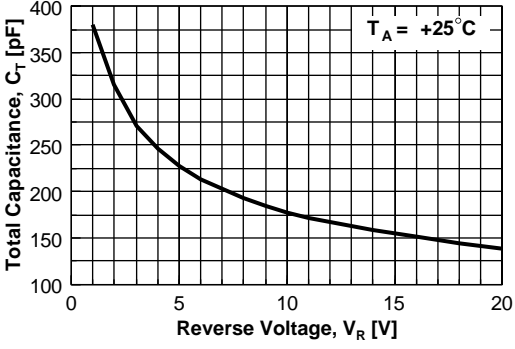


Figure 3. Total Capacitance

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