

## MBR0520-MBR05100

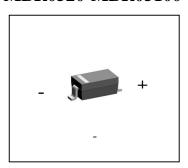
## **Features**

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering: 250°C for 10 Seconds At Terminals
- Low Forward Voltage

## Maximum Ratings

Operating Temperature: -55°C to +150°C
 Storage Temperature: -55°C to +150°C

Maximum Thermal Resistance: 5°C/W Junction to Lead



**SOD123** 

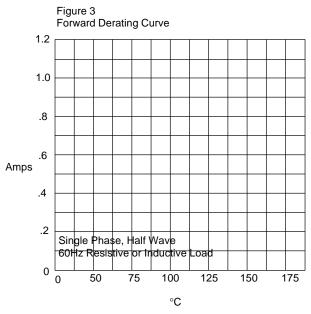
| MCC<br>Catalog<br>Number | Maximum<br>Recurrent<br>Peak<br>Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|--------------------------|--|---------------------------|--------------------------------------|
| MBR0520                  | 20V  | 14V                       | 20V                                  |
| MBR0530                  | 30V  | 21V                       | 30V                                  |
| MBR0540                  | 40V  | 28V                       | 40V                                  |
| MBR0560                  | 60V  | 42V                       | 60V                                  |
| MBR0580                  | 80V  | 56V                       | 80V                                  |
| MBR05100                 | 100V   | 70V                       | 100V                                 |

Electrical Characteristics @ 25°C Unless Otherwise Specified

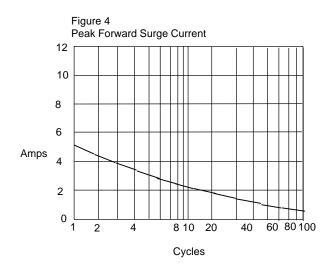
| Average Forward  Current  | I <sub>F(AV)</sub> | 0.5A                                      | T <sub>J</sub> =115°C                           |
|---|--------------------|---|---|
| Peak Forward Surge<br>Current   | I <sub>FSM</sub>   | 5A  | 8.3ms half sine                                 |
| Maximum Instantaneous Forward Voltage MBR0520 MBR0530 MBR0540 MBR0560 MBR0580-05100 | V <sub>F</sub>     | 0.45V<br>0.55V<br>0.55V<br>0.70V<br>0.80V | I <sub>FM</sub> =0.5A<br>T <sub>A</sub> =25°C   |
| Maximum DC<br>Reverse Current At<br>Rated DC Blocking<br>Voltage                    | I <sub>R</sub>     | 0.2mA                                     | T <sub>J</sub> =25°C                            |
| Typical Junction<br>Capacitance   | СJ                 | 30pF                                      | Measured at<br>1.0MHz,<br>V <sub>R</sub> =4.0 V |



## MBR0520-MBR05100 Typical Characteristics



Average Forward Rectified Current - Amperesversus Ambient Temperature -°C



Peak Forward Surge Current - Amperes*versus* Number Of Cycles At 60Hz - Cycles