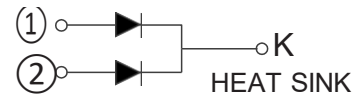


## SCHOTTKY BARRIER GLASS PASSIVATED RECTIFIERS

### FEATURES

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Low power loss, high efficiency
- ◆ High surge capability
- ◆ High temperature soldering guaranteed
- ◆ Mounting position: any

### TO-263(D<sup>2</sup>PAK)



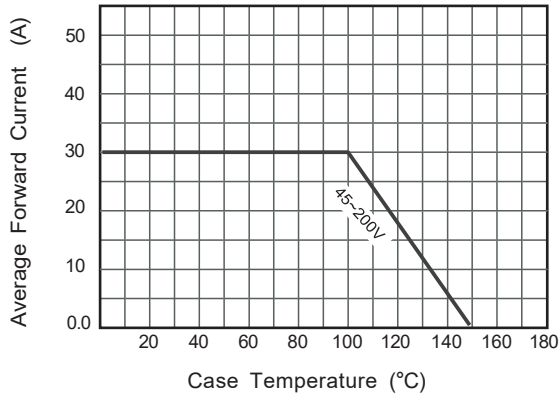
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

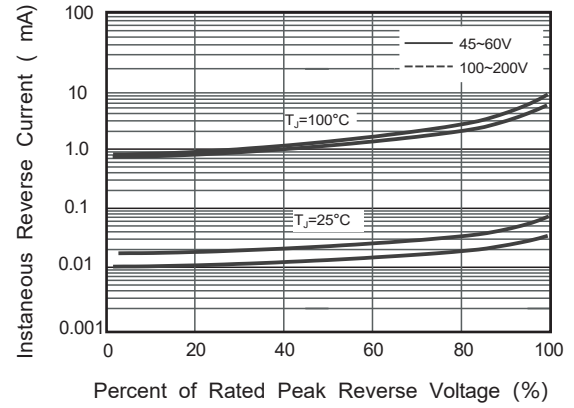
| MCHARACTERISTICS                                                                                                  | SYMBOL             | MBRB<br>3045 | MBRB<br>3060 | MBRB<br>30100 | MBRB<br>30150 | MBRB<br>30200 | UNITS |
|-------------------------------------------------------------------------------------------------------------------|--------------------|--------------|--------------|---------------|---------------|---------------|-------|
| Maximum repetitive peak reverse voltage                                                                           | V <sub>RRM</sub>   | 45           | 60           | 100           | 150           | 200           | V     |
| Maximum RMS voltage                                                                                               | V <sub>RMS</sub>   | 32           | 42           | 70            | 105           | 140           | V     |
| Maximum DC blocking voltage                                                                                       | V <sub>DC</sub>    | 45           | 60           | 100           | 150           | 200           | V     |
| Maximum average forward rectified current<br>per diode<br>per device                                              | I <sub>F(AV)</sub> | 15<br>30     |              |               |               |               | A     |
| Peak forward surge current<br>8.3ms single half sine-wave<br>superimposed on rated load (JEDEC Method) per device | I <sub>FSM</sub>   | 200          |              |               |               |               | A     |
| Maximum instantaneous forward voltage at 15A DC Per leg                                                           | V <sub>F</sub>     | 0.70         | 0.75         | 0.85          | 0.95          |               | V     |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>T <sub>A</sub> =25°C<br>T <sub>A</sub> =125°C       | I <sub>R</sub>     | 0.1<br>20    |              | 0.05<br>20    |               |               | mA    |
| Typical junction capacitance (NOTE 1)                                                                             | C <sub>J</sub>     | 600          | 400          |               |               |               | pF    |
| Typical thermal resistance (NOTE 2)                                                                               | R <sub>θJA</sub>   | 45           |              |               |               |               | °C/W  |
| Operating junction temperature range                                                                              | T <sub>J</sub>     | -55 to +150  |              |               |               |               | °C    |
| Storage temperature range                                                                                         | T <sub>STG</sub>   | -55 to +150  |              |               |               |               | °C    |

**Note:** 1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.  
2. PCB. Mounted on 10cm x 10cm x 1mm copper pad areas  
3. The typical data above is for reference only.

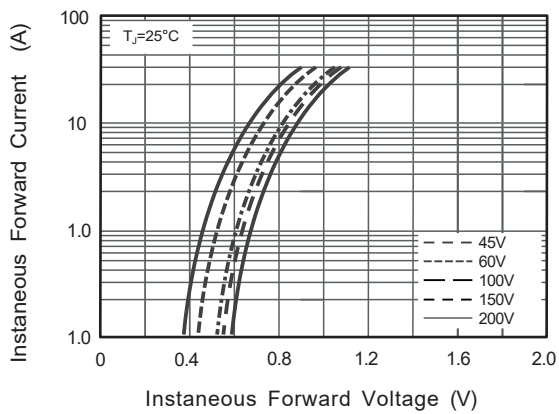
**Fig.1 Typical Forward Current Derating Curve**



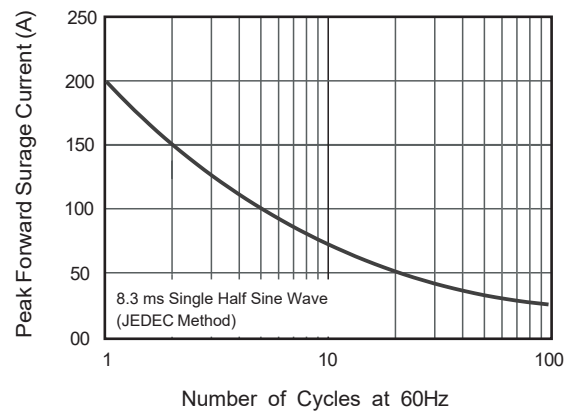
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Forward Characteristic(per leg)**



**Fig.4 Maximum Non-Repetitive Peak Forward Surge Current**



The curve above is for reference only.