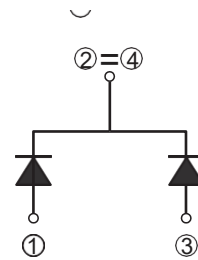


## SCHOTTKY BARRIER RECTIFIER

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25"(6.35mm) from case for 10 seconds

### TO-252(D-PAK)



### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

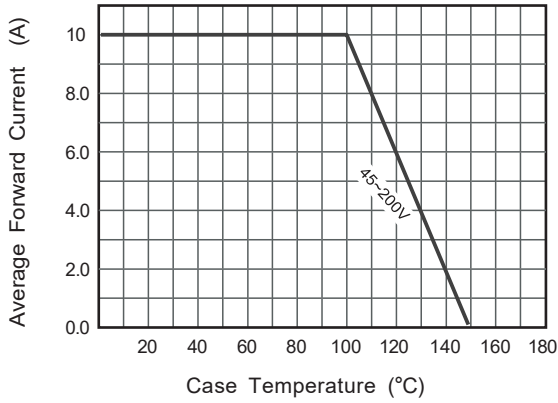
| Parameter                                                                                                       | SYMBOLS           | MBRD<br>1045 | MBRD<br>1060 | MBRD<br>10100 | MBRD<br>10150 | MBRD<br>10200 | UNITS |
|-----------------------------------------------------------------------------------------------------------------|-------------------|--------------|--------------|---------------|---------------|---------------|-------|
| Marking Code                                                                                                    |                   |              |              |               |               |               |       |
| 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            | 135           | 140           | V     |
| Maximum DC blocking voltage                                                                                     | V <sub>Dc</sub>   | 45           | 60           | 100           | 150           | 200           | V     |
| Maximum average forward rectified current (see fig.1)                                                           | I <sub>(AV)</sub> | 10.0         |              |               |               |               | A     |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)                | I <sub>FSM</sub>  | 150          |              |               | 125           |               | A     |
| Maximum instantaneous forward voltage at 5.0A                                                                   | V <sub>F</sub>    | 0.60         | 0.75         | 0.85          | 0.95          |               | V     |
| Maximum DC reverse current      T <sub>A</sub> =25°C<br>at rated DC blocking voltage      T <sub>A</sub> =100°C | I <sub>R</sub>    | 1.0          |              |               | 0.1           |               | mA    |
|                                                                                                                 |                   | 15.0         | 50.0         |               | 15.0          |               |       |
| Typical thermal resistance (NOTE 2)                                                                             | R <sub>θJC</sub>  | 2.0          |              |               | 1.5           |               | °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 1MHz and applied reverse voltage of 4.0V D.C.

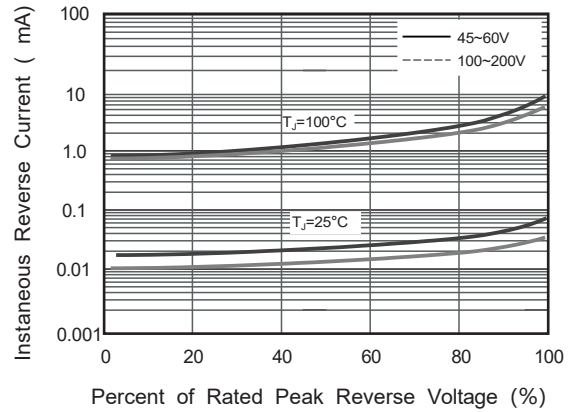
2. Thermal resistance from junction to case.

## Ratings And Characteristic Curves

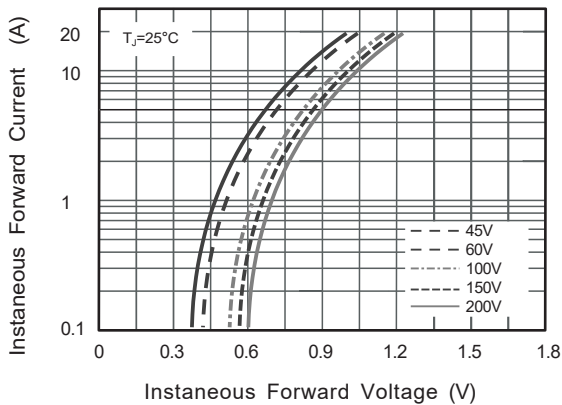
**Fig.1 Typical Forward Current Derating Curve**



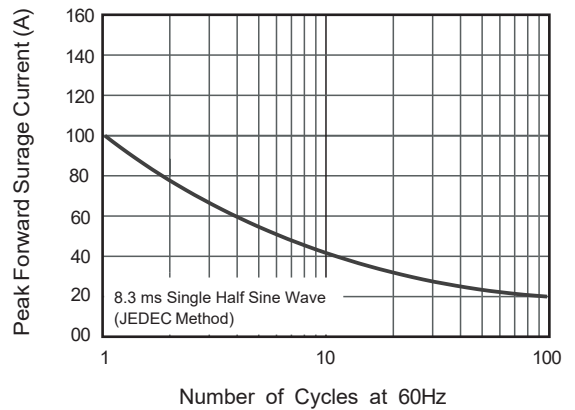
**Fig.2 Typical Reverse Characteristics**



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



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



The curve above is for reference only.