

**SCHOTTKY BARRIER RECTIFIERS**

REVERSE VOLTAGE - **70 to 100** Volts  
FORWARD CURRENT - **5.0** Amperes

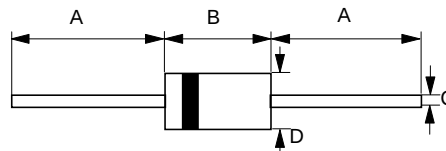
**FEATURES**

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

**MECHANICAL DATA**

- Case : JEDEC DO-201AD molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.04 ounces, 1.1 grams
- Mounting position : Any

**DO-201AD**



| DO-201AD                     |      |      |
|------------------------------|------|------|
| Dim.                         | Min. | Max. |
| A                            | 25.4 | -    |
| B                            | 7.30 | 9.50 |
| C                            | 1.20 | 1.30 |
| D                            | 4.80 | 5.30 |
| All Dimensions in millimeter |      |      |

**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, derate current by 20%

| CHARACTERISTICS                                                                                      | SYMBOL           | SB570        | SB580 | SB590 | SB5100 | UNIT |
|------------------------------------------------------------------------------------------------------|------------------|--------------|-------|-------|--------|------|
| Maximum Recurrent Peak Reverse Voltage                                                               | V <sub>RRM</sub> | 70           | 80    | 90    | 100    | V    |
| Maximum RMS Voltage                                                                                  | V <sub>RMS</sub> | 49           | 56    | 63    | 70     | V    |
| Maximum DC Blocking Voltage                                                                          | V <sub>DC</sub>  | 70           | 80    | 90    | 100    | V    |
| Maximum Average Forward Rectified Current @T <sub>L</sub> =90°C                                      | I(AV)            | 5.0          |       |       |        | A    |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load                   | I <sub>FSM</sub> | 125          |       |       |        | A    |
| Maximum forward Voltage at 5.0A DC @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C                      | V <sub>F</sub>   | 0.85<br>0.75 |       |       |        | V    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C | I <sub>R</sub>   | 0.5<br>50    |       |       |        | mA   |
| Typical Junction Capacitance (Note 1)                                                                | C <sub>J</sub>   | 135          |       |       |        | pF   |
| Typical Thermal Resistance (Note 2)                                                                  | R <sub>θJL</sub> | 6            |       |       |        | °C/W |
| Operating Temperature Range                                                                          | T <sub>J</sub>   | -55 to +150  |       |       |        | °C   |
| Storage Temperature Range                                                                            | T <sub>STG</sub> | -55 to +150  |       |       |        | °C   |

NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Thermal Resistance Junction to Lead.

REV. 1, Apr-2005, KDHF06

FIG.1 - FORWARD CURRENT DERATING CURVE

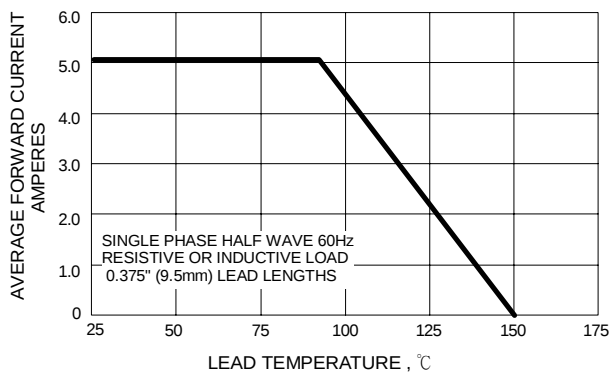


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

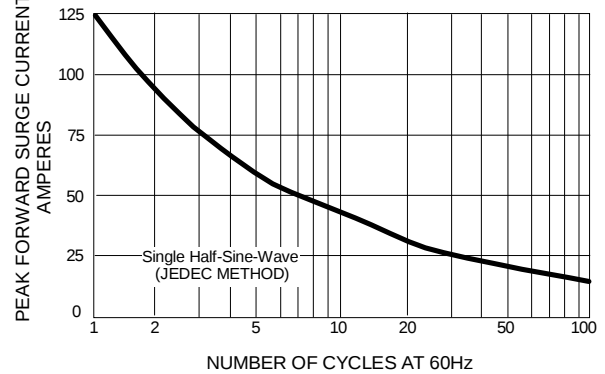


FIG.3 - TYPICAL JUNCTION CAPACITANCE

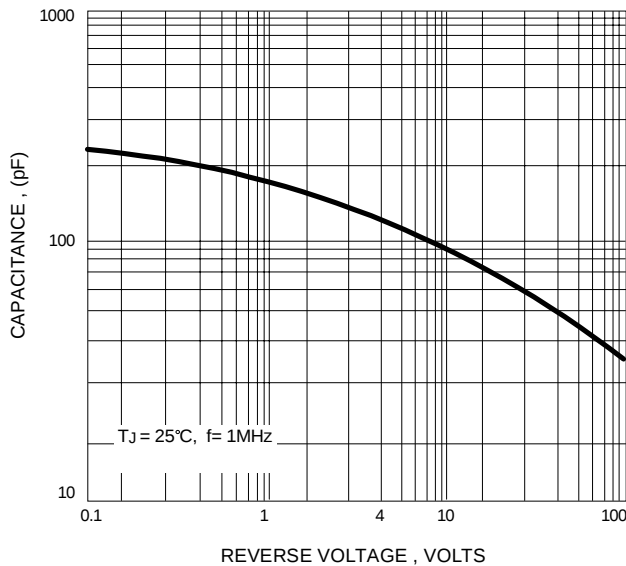


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

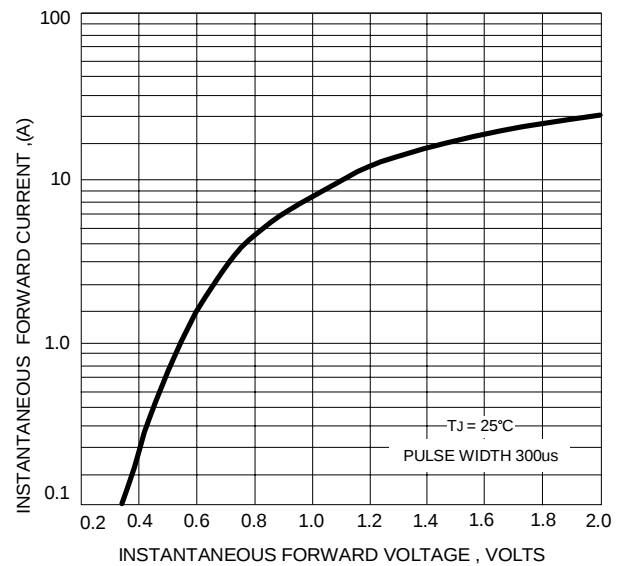


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

