

**SCHOTTKY BARRIER RECTIFIERS**

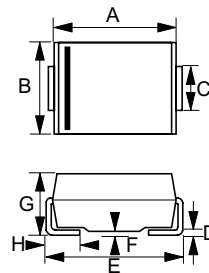
REVERSE VOLTAGE - **20 to 200** Volts  
 FORWARD CURRENT - **1.0** Amperes

**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 SMA molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.062 grams
- Mounting position : Any

**SMA**

| SMA                          |      |       |
|------------------------------|------|-------|
| DIM.                         | MIN. | MAX.  |
| A                            | 3.99 | 4.50  |
| B                            | 2.54 | 2.79  |
| C                            | 1.32 | 1.47  |
| D                            | 0.15 | 0.31  |
| E                            | 4.93 | 5.28  |
| F                            | 0.05 | 0.127 |
| G                            | 1.98 | 2.29  |
| H                            | 0.76 | 1.52  |
| 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%

| PARAMETER                                                                          | SYMBOL           | B120        | B130 | B140 | B150 | B160 | B180 | B1100 | B1150 | B1200 | UNIT |
|------------------------------------------------------------------------------------|------------------|-------------|------|------|------|------|------|-------|-------|-------|------|
| Maximum repetitive peak reverse voltage                                            | V <sub>RRM</sub> | 20          | 30   | 40   | 50   | 60   | 80   | 100   | 150   | 200   | V    |
| Maximum RMS voltage                                                                | V <sub>RMS</sub> | 14          | 21   | 28   | 35   | 42   | 56   | 70    | 105   | 140   | V    |
| Maximum DC blocking voltage                                                        | V <sub>DC</sub>  | 20          | 30   | 40   | 50   | 60   | 80   | 100   | 150   | 200   | V    |
| Maximum average forward redified current                                           | I <sub>F</sub>   | 1.0         |      |      |      |      |      |       |       |       | A    |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I <sub>FSM</sub> | 30.0        |      |      |      |      |      |       |       |       | A    |
| Maximum Instantaneous Forward Voltage @ 1.0A                                       | V <sub>F</sub>   | 0.50        |      |      | 0.70 |      | 0.85 |       | 0.87  | 0.90  | V    |
| Maximum DC Reverse Current @ TA=25°C<br>at Rated DC Blocking Voltage @ TA=100°C    | I <sub>R</sub>   | 0.5         |      |      |      |      | 0.2  |       |       |       | mA   |
|                                                                                    |                  | 10.0        |      |      |      |      | 5.0  |       |       |       |      |
| Typical Junction Capacitance                                                       | C <sub>J</sub>   | 70          |      |      | 60   |      | 50   |       | 35    |       | pF   |
| Typical Thermal Resistance                                                         | R <sub>θJA</sub> | 70          |      |      |      |      |      |       |       |       | °C/W |
| Operating Temperature Range                                                        | T <sub>J</sub>   | -55 to +125 |      |      |      |      |      |       |       |       | °C   |
| Storage Temperature Range                                                          | T <sub>STG</sub> | -55 to +150 |      |      |      |      |      |       |       |       | °C   |



FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

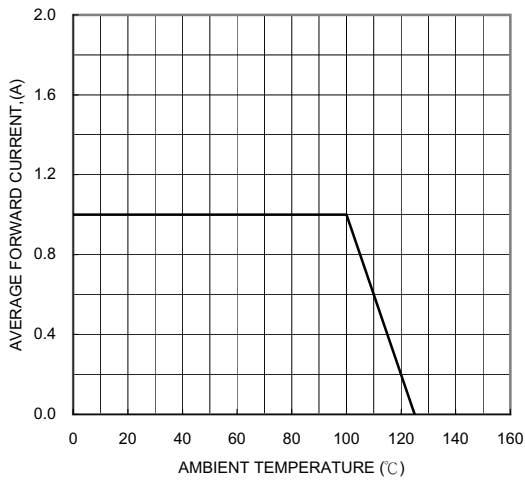


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

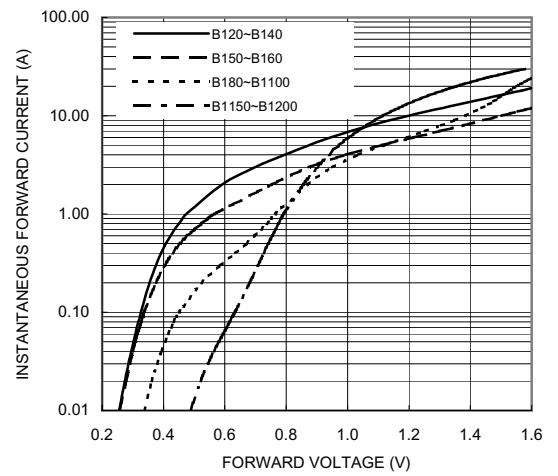


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

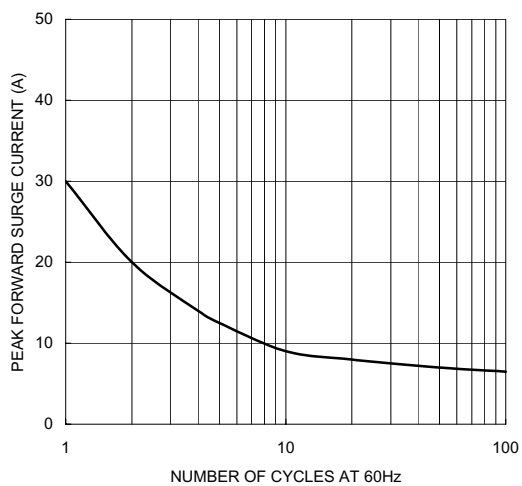


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

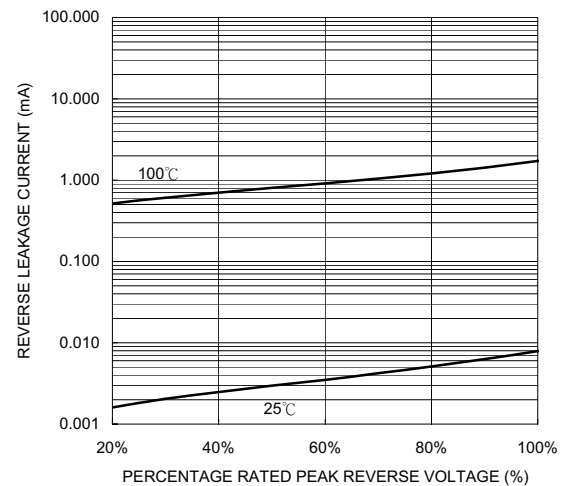


FIG. 5-TYPICAL JUNCTION CAPACITANCE

