

**VOLTAGE RANGE: 50 - 1000V**

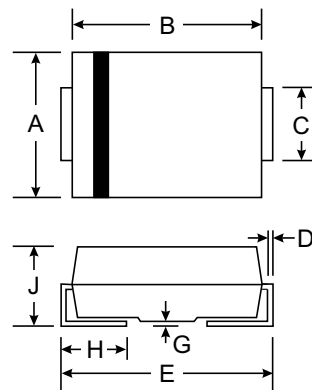
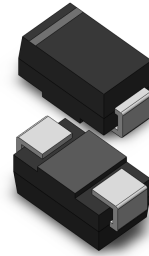
**CURRENT: 1.0 A**

### Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Fast Recovery Time
- Plastic Case Material has UL Flammability

### Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)



| SMA(DO-214AC)        |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 2.29 | 2.92 |
| B                    | 4.00 | 4.60 |
| C                    | 1.27 | 1.63 |
| D                    | 0.15 | 0.31 |
| E                    | 4.80 | 5.59 |
| G                    | 0.10 | 0.20 |
| H                    | 0.76 | 1.52 |
| J                    | 2.01 | 2.62 |
| All Dimensions in mm |      |      |

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

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

| Characteristic                                                                                                        | Symbol                           | SMF101A      | SMF102A | SMF103A | SMF104A | SMF105A | SMF106A | SMF107A | Unit |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------|---------|---------|---------|---------|---------|---------|------|
| Maximum repetitive peak reverse voltage                                                                               | V <sub>RRM</sub>                 | 50           | 100     | 200     | 400     | 600     | 800     | 1000    | V    |
| Maximum RMS voltage                                                                                                   | V <sub>RMS</sub>                 | 35           | 70      | 140     | 280     | 420     | 560     | 700     | V    |
| Maximum DC blocking voltage                                                                                           | V <sub>DC</sub>                  | 50           | 100     | 200     | 400     | 600     | 800     | 1000    | V    |
| Maximum average forward rectified current at T <sub>A</sub> =65°C (NOTE 1)                                            | I <sub>(AV)</sub>                | 1.0          |         |         |         |         |         |         | A    |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T <sub>L</sub> =25°C | I <sub>FSM</sub>                 | 30.0         |         |         |         |         |         |         | A    |
| Maximum instantaneous forward voltage at 1.0A                                                                         | V <sub>F</sub>                   | 1.3          |         |         |         |         |         |         | V    |
| Maximum DC reverse current T <sub>A</sub> =25°C at rated DC blocking voltage T <sub>A</sub> =100°C                    | I <sub>R</sub>                   | 5.0<br>100.0 |         |         |         |         |         |         | μA   |
| Maximum reverse recovery time (NOTE 2)                                                                                | t <sub>rr</sub>                  | 150          |         |         |         | 250     | 500     |         | ns   |
| Typical junction capacitance (NOTE 3)                                                                                 | C <sub>J</sub>                   | 15           |         |         |         |         |         |         | pF   |
| Typical thermal resistance (NOTE 4)                                                                                   | R <sub>θJA</sub>                 | 180          |         |         |         |         |         |         | K/W  |
| Operating junction and storage temperature range                                                                      | T <sub>J</sub> ,T <sub>STG</sub> | -50 to +150  |         |         |         |         |         |         | °C   |

**Note:** 1. Averaged over any 20ms period.  
 2. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.  
 3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 4. Thermal resistance junction to ambient, 6.0 mm<sup>2</sup> copper pads to each terminal.

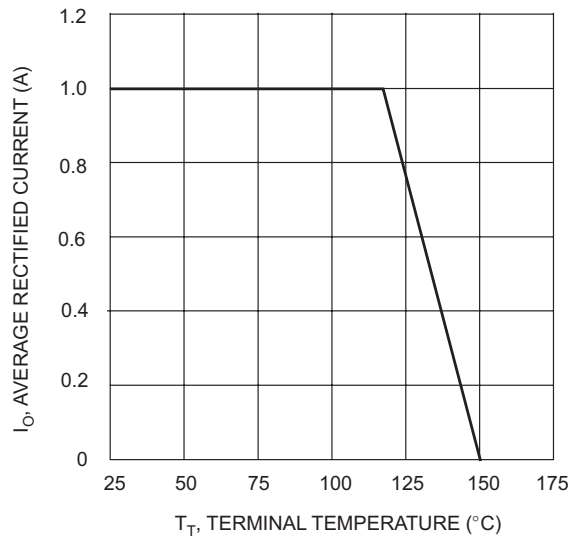


Fig. 1 Forward Current Derating Curve

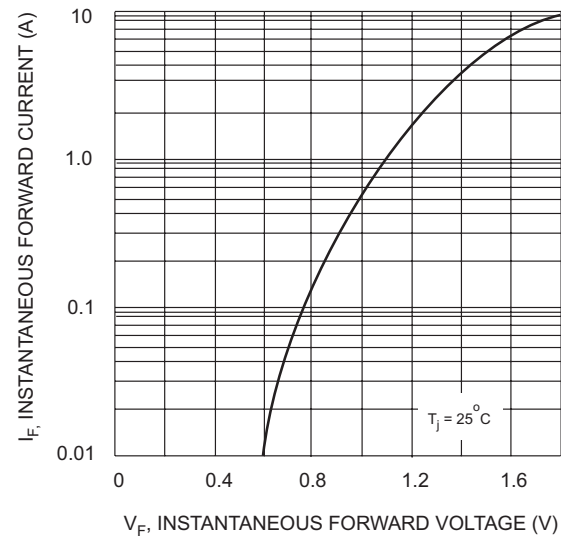


Fig. 2 Typical Forward Characteristics

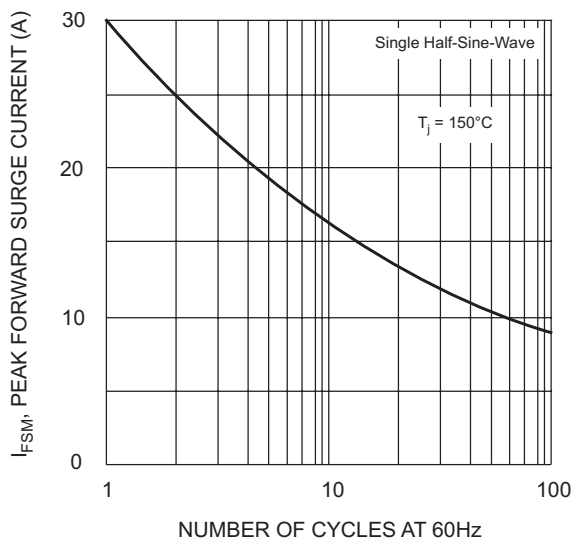


Fig. 3 Forward Surge Current Derating Curve

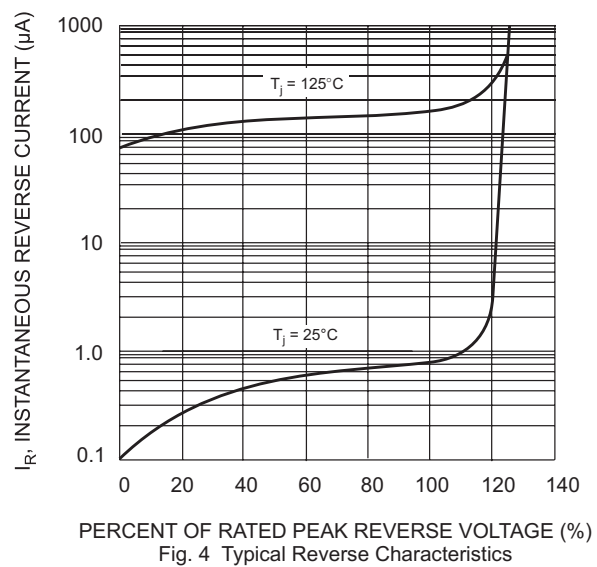
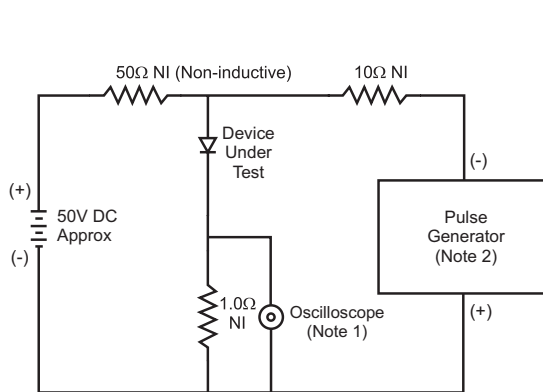
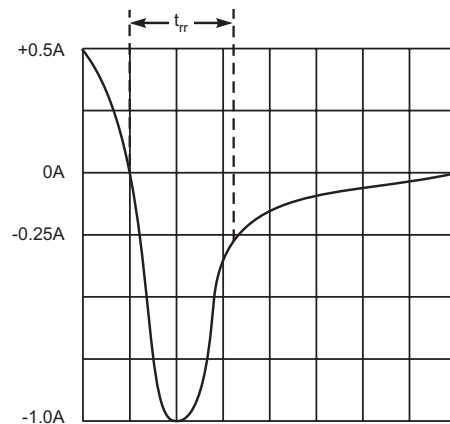


Fig. 4 Typical Reverse Characteristics



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0M $\Omega$ , 22pF.
  2. Rise Time = 10ns max. Input Impedance = 50 $\Omega$ .

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit



Set time base for 50/100 ns/cm

单击下面可查看定价，库存，交付和生命周期等信息

[>>SUNMATE\(森美特\)](#)