

# Silicon Rectifiers

#### **Feature**

- > For surface mounted applications
- Low profile package
- Glass Passivated Chip Juntion
- Easy to pick and place
- ➤ Lead free in comply with EU RoHS 2011/65/EU directives



#### **Mechanical Characteristics**

- Case: SMAF
- > Terminals: Solderable per MIL-STD-750, Method 2026
- > Approx. Weight: 27mg 0.00086oz

### Absolute maximum rating@25℃

| Parameter   | Symb<br>ol                        | PM1        | PM2 | PM3 | PM4 | PM5 | PM6      | PM7  | Unit<br>s |
|---|-----------------------------------|------------|-----|-----|-----|-----|----------|------|-----------|
| 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 Ta = 65 °C   | I <sub>F(AV)</sub>                | 1          |     |     |     |     |          | А    |           |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | IFSM                              | 30         |     |     |     |     |          | А    |           |
| Maximum Instantaneous Forward Voltage at 1A   | VF                                | 1.1        |     |     |     |     |          | V    |           |
| Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta =125 °C                     | I <sub>R</sub>                    | 5<br>50    |     |     |     |     |          | μА   |           |
| Typical Junction Capacitance <sup>1)</sup>  | Cj                                | 4          |     |     |     |     | pF       |      |           |
| Typical Thermal Resistance <sup>2</sup>   | RөJA                              | 180        |     |     |     |     | °C<br>/W |      |           |
| Operating and Storage Temperature Range   | T <sub>j</sub> , T <sub>stg</sub> | -55 ~ +150 |     |     |     |     | °C       |      |           |

#### **Typical Characteristics**

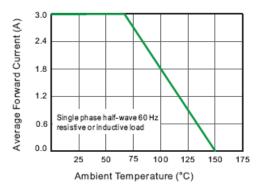
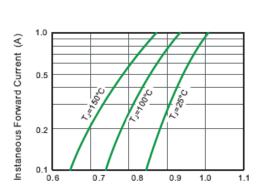


Fig.1 Forward Current Derating Curve



Instaneous Forward Voltage (V)
Fig.3 Typical Forward Characteristic

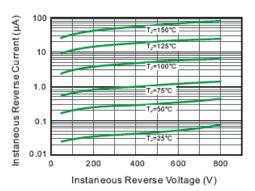


Fig.2 Typical Instaneous Reverse Characteristics

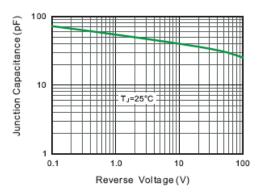
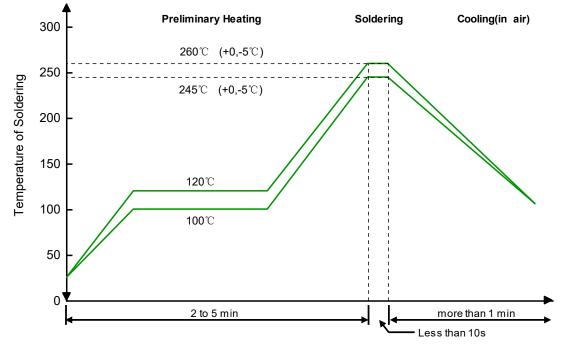


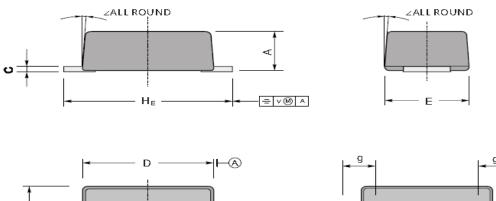
Fig.4 Typical Junction Capacitance

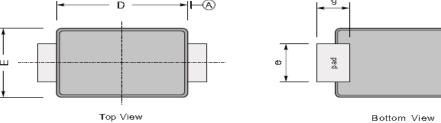
#### **Solder Reflow Recommendation**



Remark: Pb free for 260°C; Pb for 245°C.

### **Product dimension (SMAF)**

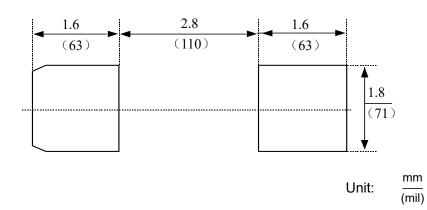




pad

| UNIT  |     | Α   | С    | D   | Е   | е   | g   | H <sub>E</sub> | 2    |
|-------|-----|-----|------|-----|-----|-----|-----|----------------|------|
| mm    | max | 1.3 | 0.23 | 3.7 | 2.7 | 1.6 | 1.3 | 4.9            |      |
| mm    | min | 0.9 | 0.18 | 3.3 | 2.4 | 1.3 | 1.0 | 4.4            | . 7° |
| mil   | max | 51  | 9.1  | 146 | 106 | 63  | 51  | 193            | ,    |
| 11111 | min | 35  | 7.1  | 130 | 94  | 51  | 39  | 173            |      |

## The recommended mounting pad size



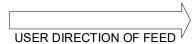
## Ordering information

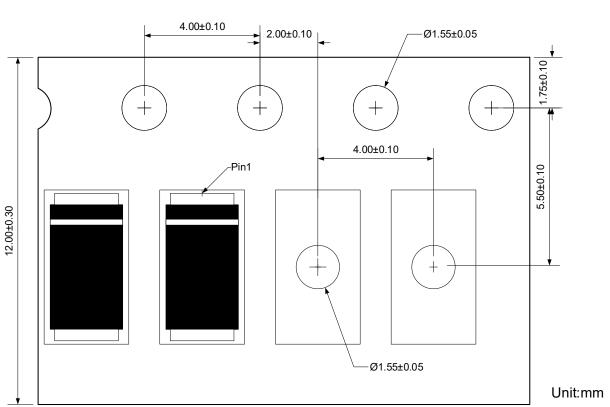
| Device | Marking |
|--------|---------|
| PM1    | M1      |
| PM7    | M7      |

### Ordering information

| Device  | Package | Reel | Shipping          |  |
|---------|---------|------|-------------------|--|
| PM1-PM7 | SMAF    | 7"   | 3000/ Tape & Reel |  |

### Load with information





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