



## SURFACE MOUNT FAST RECOVERY RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS

**FORWARD CURRENT:** 10.0 AMPERE

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
260°C/10 seconds at terminals

### Mechanical Data

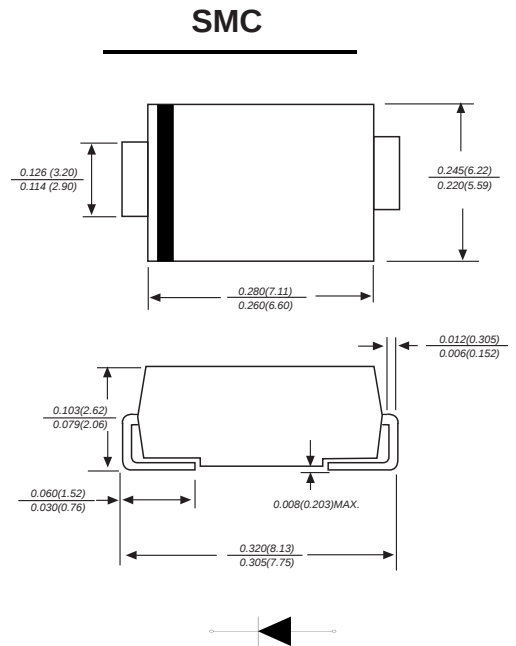
**Case :** Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.008 ounce, 0.225 grams



Dimensions in inches and (millimeters)

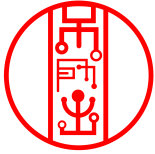
### Maximum Ratings And Electrical Characteristics

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                          | RS10ACG     | RS10BCG | RS10DCG | RS10GCG | RS10JCG | RS10KCG | RS10MCG | UNITS |
|-------------------------------------------------------------------------------------------------------------|----------------------------------|-------------|---------|---------|---------|---------|---------|---------|-------|
| 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>L</sub> =100°C                                          | I <sub>(AV)</sub>                | 10.0        |         |         |         |         |         |         | A     |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                          | I <sub>FSM</sub>                 | 200.0       |         |         |         |         |         |         | A     |
| Maximum instantaneous forward voltage at 10.0A                                                              | V <sub>F</sub>                   | 1.30        |         |         |         |         |         |         | V     |
| Maximum DC reverse current    T <sub>A</sub> =25°C<br>at rated DC blocking voltage    T <sub>A</sub> =125°C | I <sub>R</sub>                   | 2.0<br>200  |         |         |         |         |         |         | μA    |
| Maxinum reverse recovery time(Note 1)                                                                       | T <sub>rr</sub>                  | 150         |         |         |         | 250     | 500     |         | ns    |
| Typical junction capacitance (Note2)                                                                        | C <sub>J</sub>                   | 80.0        |         |         |         |         |         |         | pF    |
| Typical thermal resistance                                                                                  | R <sub>qJA</sub>                 | 47.0        |         |         |         |         |         |         | °C/W  |
| Operating junction and storage temperature range                                                            | T <sub>J</sub> ,T <sub>STG</sub> | -55 to +150 |         |         |         |         |         |         | °C    |

**Note:** 1. Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

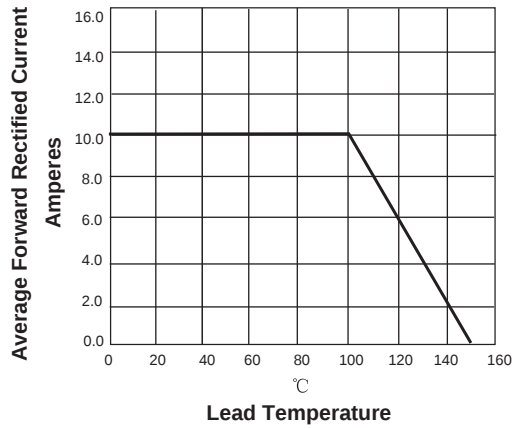


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

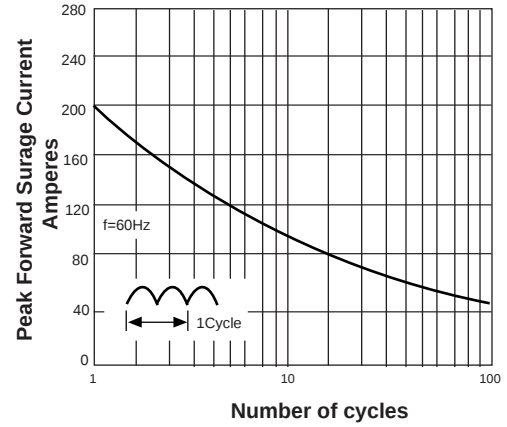


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

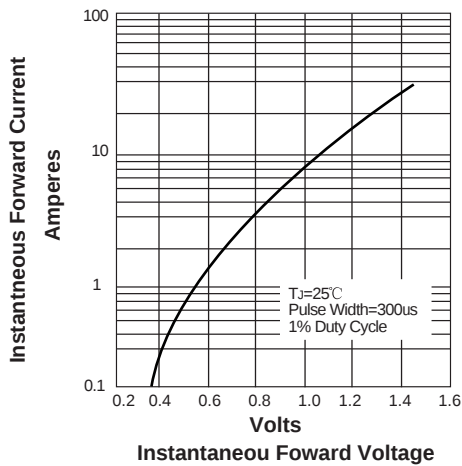


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

