

1.5 A Surface Mount Silicon Rectifier
Rectifier Reverse Voltage 50 to 1000V



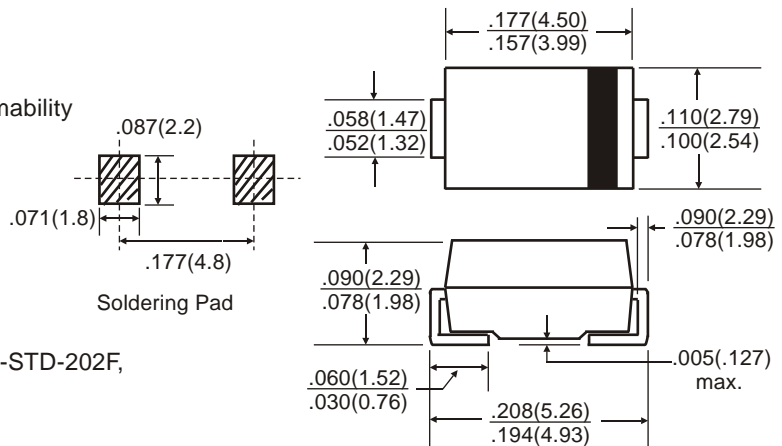
SMA / DO-214AC

Features

- Ideal for surface mount application
- Surge overload rating to 50A peak
- Plastic material has UL recognition flammability classification 94V-0
- Built-in strain relief

Mechanical Data

Case: Molded plastic
 Terminals: Solder plated solderable per MIL-STD-202F, Method 208
 Polarity: Color band denotes cathode end
 Mounting Position: Any
 Weight: 0.063grams (approx)



All dimensions inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
 For Capacitive load derate current by 20%.

| Parameter | Symbol | SM 5391 | SM 5392 | SM 5393 | SM 5395 | SM 5397 | SM 5398 | SM 5399 | unit |
|---|----------|--------------|---------|---------|---------|---------|---------|---------|------|
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS bridge input voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified output current at TA=100°C | IF(AV) | 1.5 | | | | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM | 50.0 | | | | | | | A |
| Typical thermal resistance per element (1) | ReJA | 28 | | | | | | | °C/W |
| Typical junction capacitance per element (2) | Cj | 10 | | | | | | | pF |
| Operating junction and storage temperature range | TJ, TSTG | -65 to + 150 | | | | | | | °C |

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
 For Capacitive load derate by 20 %.

| Parameter | Symbol | SM 5391 | SM 5392 | SM 5393 | SM 5395 | SM 5397 | SM 5398 | SM 5399 | Unit |
|--|--------|------------|---------|---------|---------|---------|---------|---------|------|
| Maximum instantaneous forward voltage drop per leg at 1.5A | VF | 1.1 | | | | | | | V |
| Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C | IR | 5.0 100 | | | | | | | µA |

Notes: (1)Thermal resistance from Junction to Ambient on P.C.board mounting.
 (2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

SM5391 thru SM5399

Fig. 1 Derating Curve for Output Rectified Current

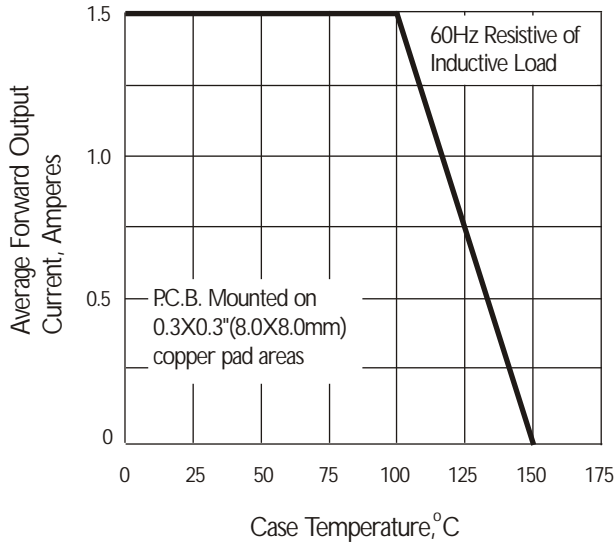


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

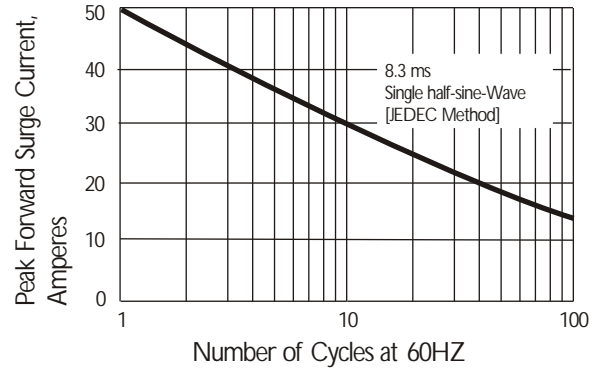


Fig. 3 Typical Instantaneous Forward Characteristics

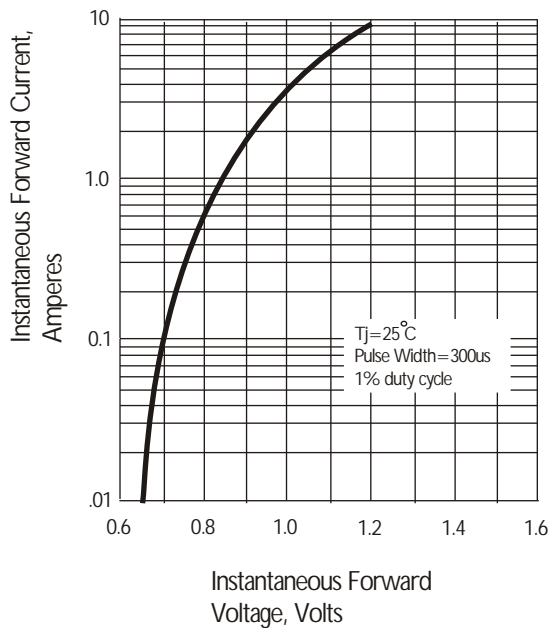


Fig. 4 Typical Reverse Characteristics

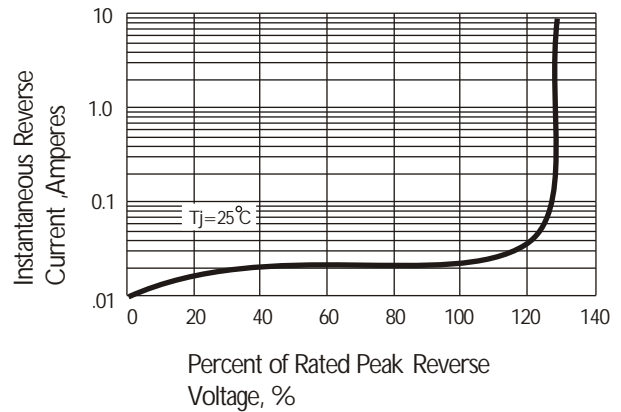


Fig. 5 Typical Junction Capacitance

