



## SS12L SERIES

### LOW VF SURFACE MOUNT SCHOTTKY RECTIFIER

**VOLTAGE** 20 to 90 Volts    **CURRENT** 1.0 Amperes

**SMA / DO-214AC**

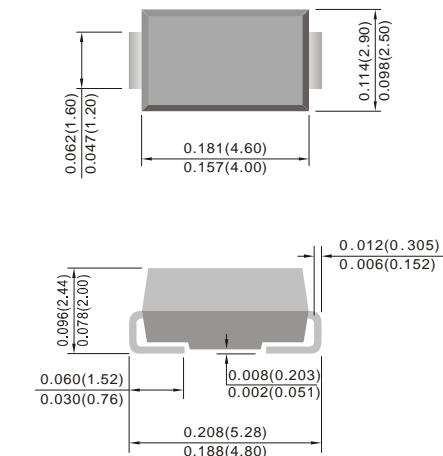
Unit : inch(mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- High current capacity, low VF
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- In compliance with EU RoHS 2002/95/EC directives

#### MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0023 ounce, 0.0679 gram



#### MAXIMUM RATINGS(T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER   | SYMBOL                               | SS12L | SS13L | SS14L        | SS14AL    | SS16L       | SS19L | UNIT |
|---|--------------------------------------|-------|-------|--------------|-----------|-------------|-------|------|
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>                     | 20    | 30    | 40           | 45        | 60          | 90    | V    |
| Maximum rms voltage   | V <sub>RMS</sub>                     | 14    | 21    | 28           | 31.5      | 42          | 64    | V    |
| Maximum dc blocking voltage   | V <sub>R</sub>                       | 20    | 30    | 40           | 45        | 60          | 90    | V    |
| Maximum average forward rectified current   | I <sub>F(AV)</sub>                   |       |       |              | 1         |             |       | A    |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load | I <sub>FSM</sub>                     |       |       |              | 30        |             | 40    | A    |
| Maximum thermal resistance  | R <sub>θJA</sub><br>R <sub>θJL</sub> |       |       |              | 120<br>40 |             |       | °C/W |
| Operating junction temperature range  | T <sub>J</sub>                       |       |       | -55 to + 125 |           | -55 to +150 |       | °C   |
| Storage temperature range   | T <sub>STG</sub>                     |       |       | -55 to + 150 |           | -55 to +150 |       | °C   |

#### ELECTRICAL CHARACTERISTICS(T<sub>A</sub>=25°C unless otherwise noted)

| PARAMETER   | SYMBOL         | TEST CONDITIONS      | SS12L | SS13L | SS14L | SS14AL | SS16L | SS19L | UNIT |
|---|----------------|----------------------|-------|-------|-------|--------|-------|-------|------|
| Maximum instantaneous forward voltage (Notes 1)       | V <sub>F</sub> | I <sub>F</sub> =1.0A |       | 0.42  |       | 0.45   | 0.50  | 0.68  | V    |
| Maximum reverse current at rated peak reverse voltage | I <sub>R</sub> | -                    | 200   |       | 100   |        | 80    | μA    |      |

#### NOTES:

1. Pulse test : 300μs pulse width, 1% duty cycle.



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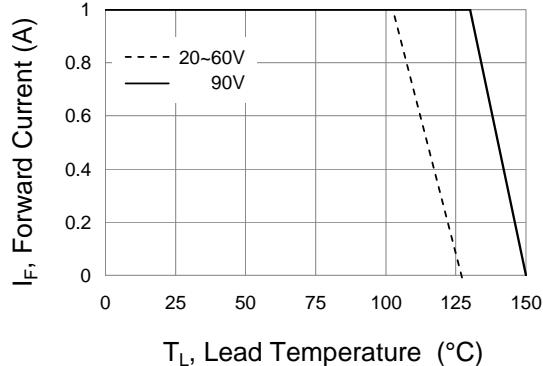


Fig.1 Forward Current Derating Curve

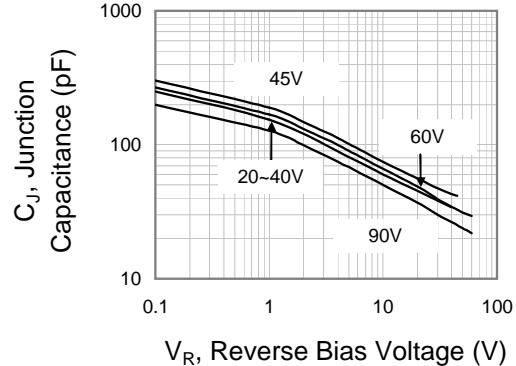


Fig.2 Typical Junction Capacitance

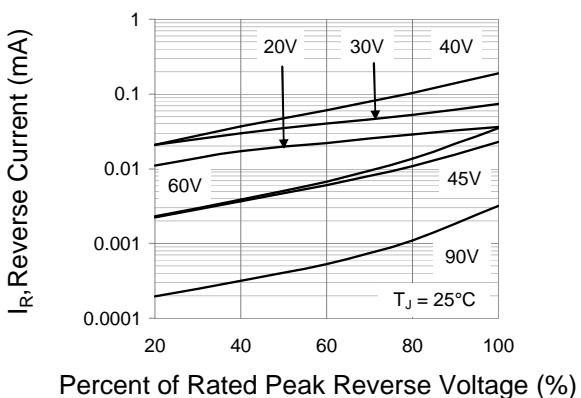


Fig.3 Typical Reverse Characteristics

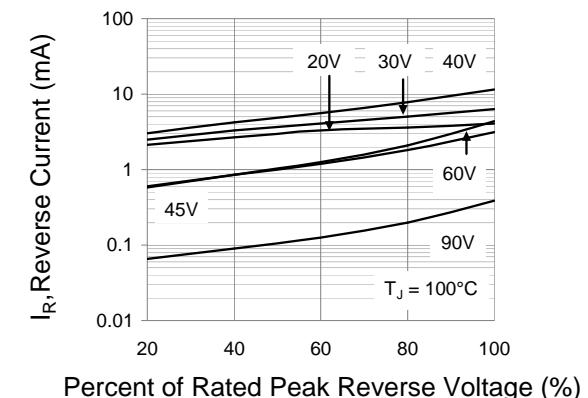


Fig.4 Typical Reverse Characteristics

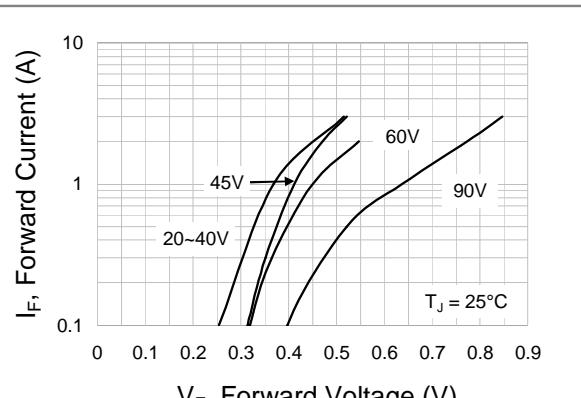


Fig.5 Typical Forward Characteristics

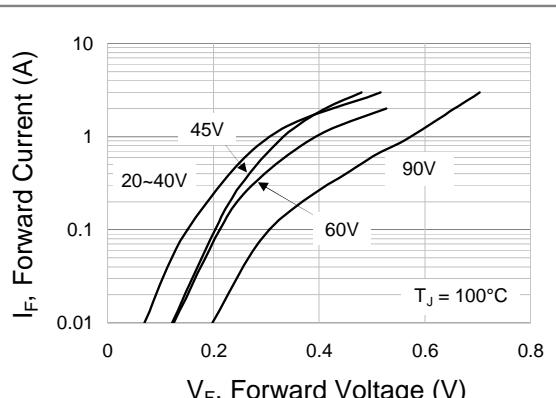
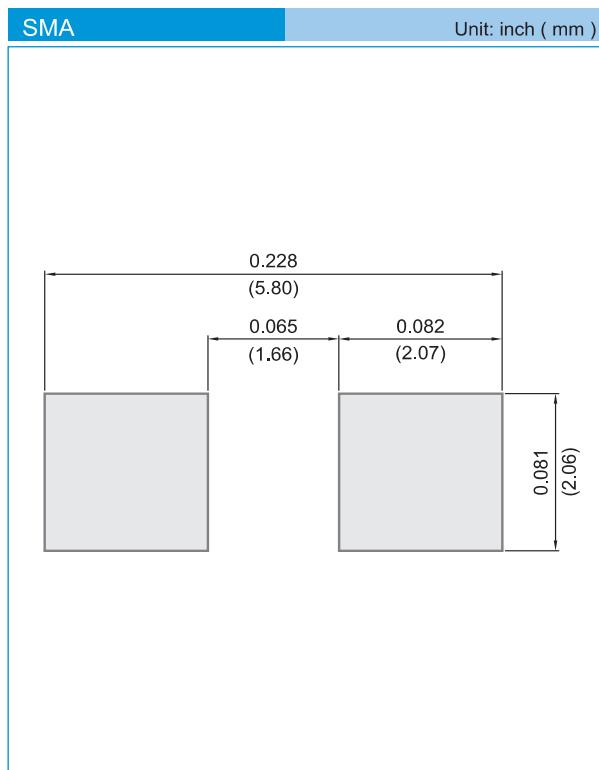


Fig.6 Typical Forward Characteristics



## SS12L SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 7.5K per 13" plastic Reel
  - T/R - 1.8Kper 7" plastic Reel

### LEGAL STATEMENT

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