



# SS54L~SS5200L Surface Mount Low VF Schottky Rectifiers

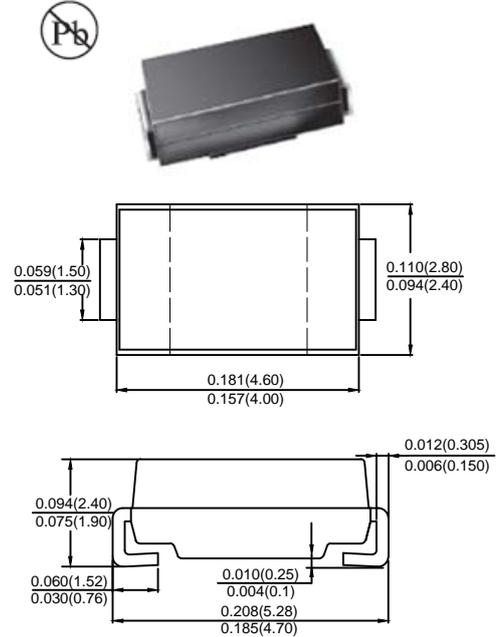
## Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:  
260°C/10 seconds at terminals
- Component in accordance to  
RoHS 2002/95/1 and WEEE 2002/96/EC

## Mechanical Date

- **Case:** JEDEC DO-214AC (SMA) molded plastic
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end

## SMA/DO-214AC



Dimensions in inches and (millimeters)

## Maximum Ratings & Thermal Characteristics & Electrical Characteristics

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

| Type Number  | SYMBOL          | SS 54L      | SS 55L | SS 56L | SS 58L | SS 510L | SS 5150L | SS 5200L | Unit                  |
|--|-----------------|-------------|--------|--------|--------|---------|----------|----------|-----------------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 40          | 50     | 60     | 80     | 100     | 150      | 200      | V                     |
| Maximum RMS Voltage  | $V_{RMS}$       | 28          | 35     | 42     | 56     | 70      | 105      | 140      | V                     |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 40          | 60     | 60     | 80     | 100     | 150      | 200      | V                     |
| Average Rectified Output Current<br>@ $T_L = 100^\circ\text{C}$                                  | $I_{F(AV)}$     | 5.0         |        |        |        |         |          |          | A                     |
| Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 110         |        |        |        |         |          |          | A                     |
| Rating for fusing ( $t < 8.3\text{ms}$ )   | $I^2 t$         | 50.22       |        |        |        |         |          |          | $\text{A}^2 \text{s}$ |
| Forward Voltage @ $I_F = 5.0\text{A}$ (Note 1)   | $V_{FM}$        | 0.45        | 0.55   | 0.75   |        | 0.85    |          | V        |                       |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$  | $I_R$           | 0.2         |        |        | 0.1    |         |          |          | mA                    |
| At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$   |                 | 10          |        |        | 5      |         |          |          |                       |
| Typical Junction Capacitance   | $C_J$           | 28          |        |        |        |         |          |          | pF                    |
| Typical Thermal Resistance per leg (Note 2)  | $R_{\theta JA}$ | 88          |        |        |        |         |          |          | $^\circ\text{C/W}$    |
| Operating Temperature Range  | $T_J$           | -55 to +150 |        |        |        |         |          |          | $^\circ\text{C}$      |
| Storage Temperature Range  | $T_{STG}$       | -55 to +150 |        |        |        |         |          |          | $^\circ\text{C}$      |

Note: 1. Pulse Test with  $PW = 300\mu\text{sec}$ , 1% Duty Cycle.

2. Mounted on P.C.Board with  $5.0 \text{ mm}^2$  (0.13mm thick) copper pad areas.



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## Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Current Derating Curve

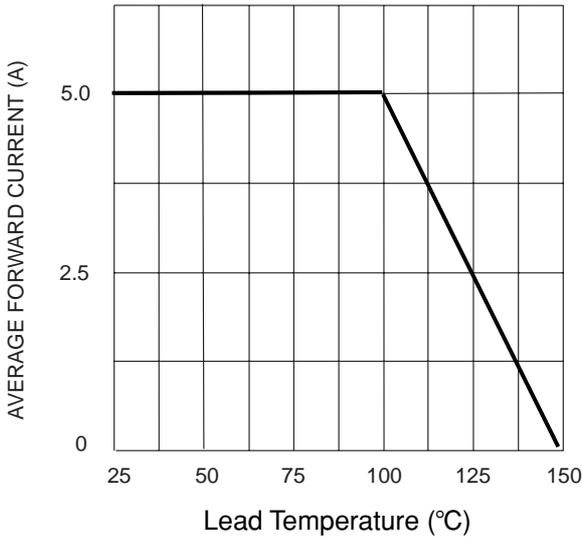


Fig. 2 Typ. Forward Characteristics

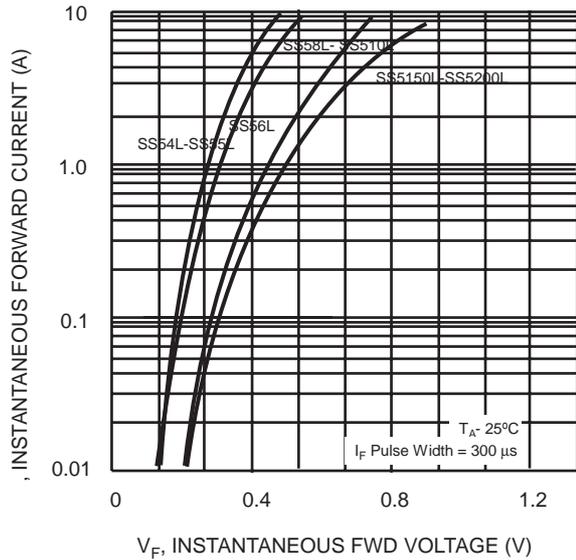


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

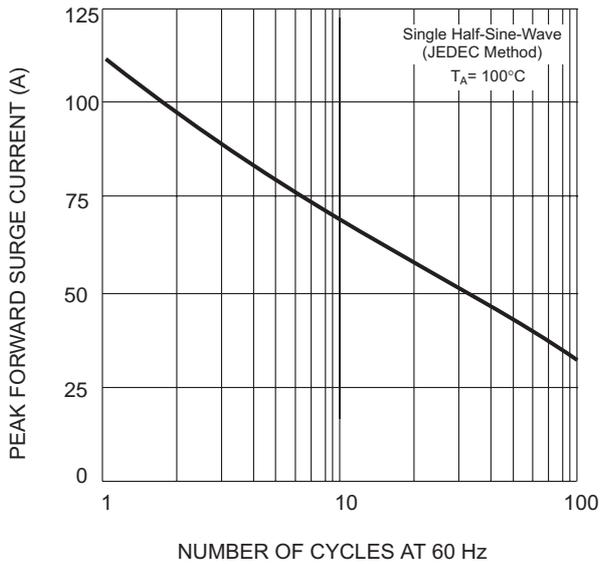
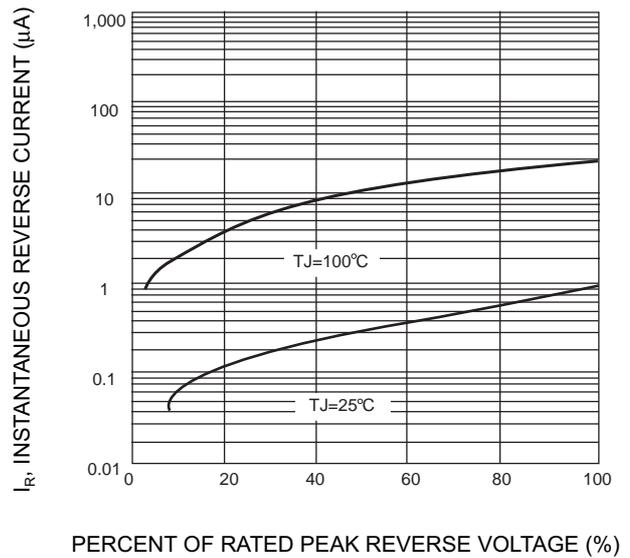
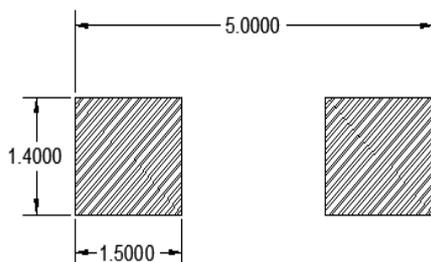


Fig. 4 Typical Reverse Characteristics (per element)



### SMA PAD LAYOUT



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