

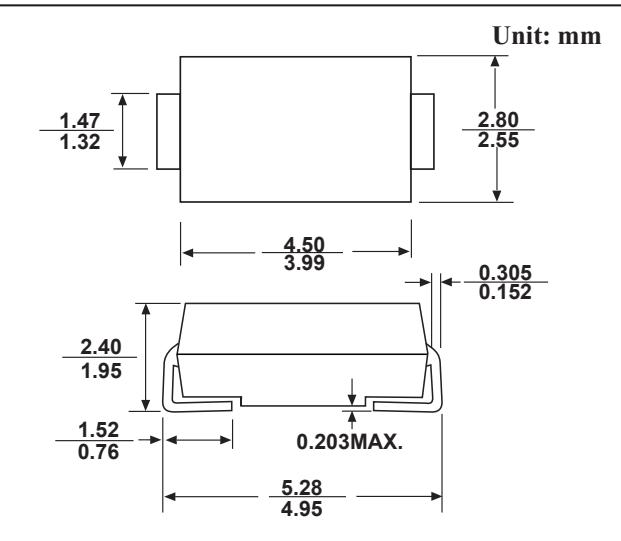
## SMA SCHOTTKY BARRIER DIODE

### FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- High reliability
- High temperature soldering guaranteed: 260 °C/10 seconds at terminals
- Component in accordance to RoHS 2015/863 and WEEE 2012/19/EU

### MECHANICAL DATA

- Case style: SMA molded plastic
- Mounting position: Any



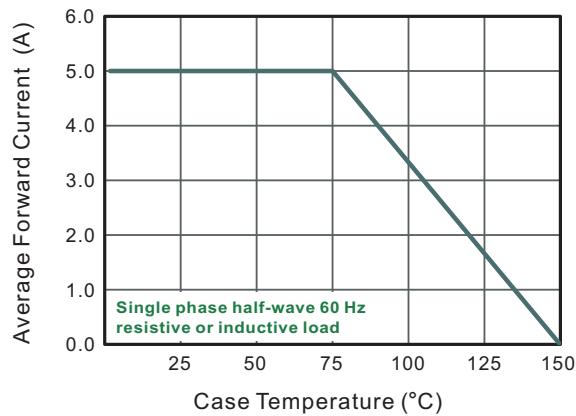
### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

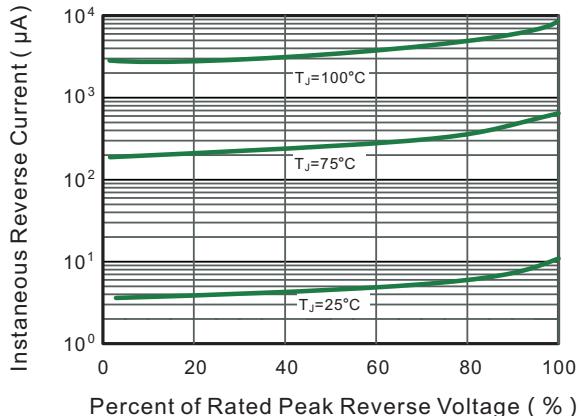
| Parameter  | Symbols     | SS52       | SS54 | SS56 | SS58 | SS510 | SS512 | SS515 | SS520 | Units |  |  |  |  |  |
|--|-------------|------------|------|------|------|-------|-------|-------|-------|-------|--|--|--|--|--|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$   | 20         | 40   | 60   | 80   | 100   | 120   | 150   | 200   | V     |  |  |  |  |  |
| Maximum RMS voltage  | $V_{RMS}$   | 14         | 28   | 42   | 56   | 70    | 84    | 105   | 140   | V     |  |  |  |  |  |
| Maximum DC Blocking Voltage  | $V_{DC}$    | 20         | 40   | 60   | 80   | 100   | 120   | 150   | 200   | V     |  |  |  |  |  |
| Maximum Average Forward Rectified Current  | $I_{F(AV)}$ | 5.0        |      |      |      |       |       |       | A     |       |  |  |  |  |  |
| Peak Forward Surge Current, 8.3ms<br>Single Half Sine-wave Superimposed<br>on Rated Load (JEDEC method)      | $I_{FSM}$   | 150        |      |      |      |       |       |       | A     |       |  |  |  |  |  |
| Max Instantaneous Forward Voltage at 5 A   | $V_F$       | 0.55       |      | 0.70 |      | 0.85  |       |       | V     |       |  |  |  |  |  |
| Maximum DC Reverse Current $T_a = 25^\circ\text{C}$<br>at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$ | $I_R$       | 1.0<br>50  |      |      |      |       |       |       | mA    |       |  |  |  |  |  |
| Typical Junction Capacitance   | $C_j$       | 500        |      | 300  |      |       |       |       | pF    |       |  |  |  |  |  |
| Typical Thermal Resistance   | $R_{QJA}$   | 60         |      |      |      |       |       |       | °C/W  |       |  |  |  |  |  |
| Operating Junction Temperature Range   | $T_j$       | -55 ~ +150 |      |      |      |       |       |       | °C    |       |  |  |  |  |  |
| Storage Temperature Range  | $T_{stg}$   | -55 ~ +150 |      |      |      |       |       |       | °C    |       |  |  |  |  |  |

## RATINGS AND CHARACTERISTIC CURVES

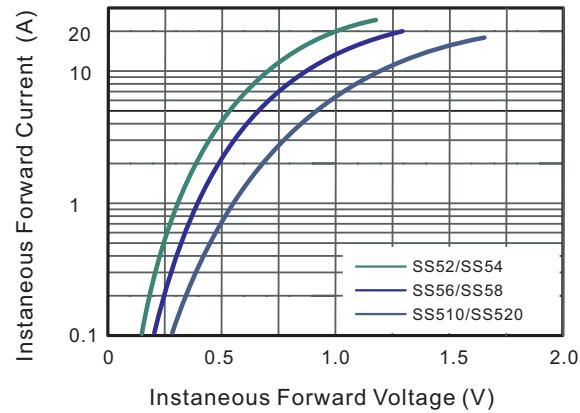
**Fig.1 Forward Current Derating Curve**



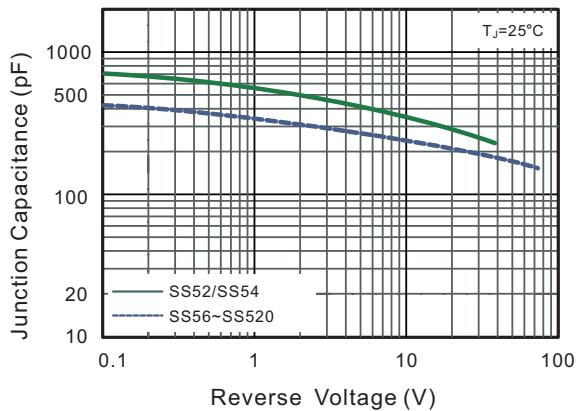
**Fig.2 Typical Reverse Characteristics**



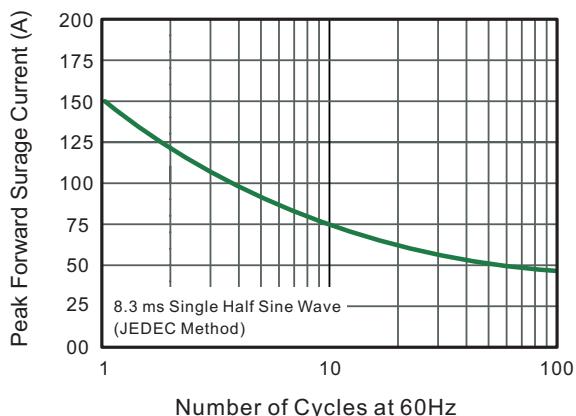
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.6- Typical Transient Thermal Impedance**

