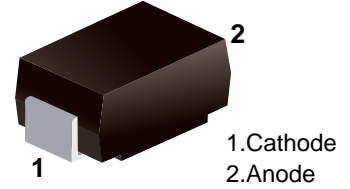


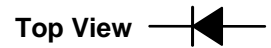
■ Schottky Diodes

■ Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



■ Simplified outline(SMA)



■ Absolute Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

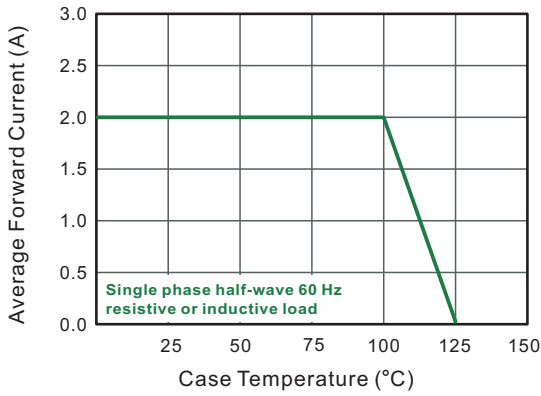
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter  | Symbols         | SS22       | SS24 | SS26 | SS28     | SS210 | SS212 | SS215 | SS220 | 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  | $I_{F(AV)}$     | 2.0        |      |      |          |       |       |       |       | A     |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)            | $I_{FSM}$       | 50         |      |      |          | 40    |       |       |       | A     |
| Max Instantaneous Forward Voltage at 2 A   | $V_F$           | 0.55       |      | 0.70 |          | 0.85  |       | 0.95  |       | V     |
| Maximum DC Reverse Current $T_a = 25^\circ\text{C}$<br>at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$ | $I_R$           | 0.5<br>5   |      |      | 0.3<br>3 |       |       |       | mA    |       |
| Typical Junction Capacitance <sup>(1)</sup>  | $C_j$           | 220        |      | 80   |          |       |       |       |       | pF    |
| Typical Thermal Resistance <sup>(2)</sup>  | $R_{\theta JA}$ | 80         |      |      |          |       |       |       |       | °C/W  |
| Operating Junction Temperature Range   | $T_j$           | -55 ~ +125 |      |      |          |       |       |       |       | °C    |
| Storage Temperature Range  | $T_{stg}$       | -55 ~ +150 |      |      |          |       |       |       |       | °C    |

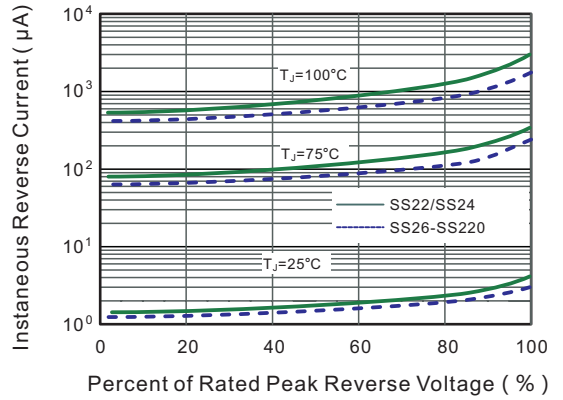
( 1 ) Measured at 1 MHz and applied reverse voltage of 4 V D.C

( 2 ) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

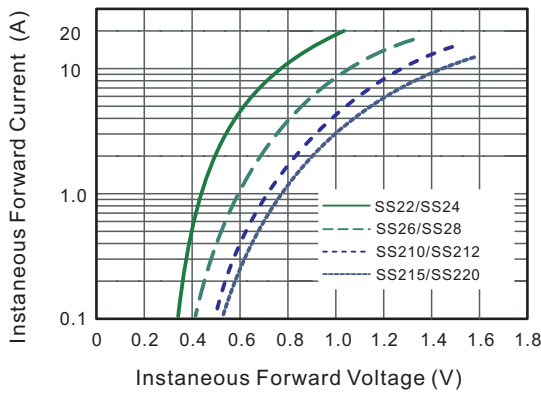
**Fig.1 Forward Current Derating Curve**



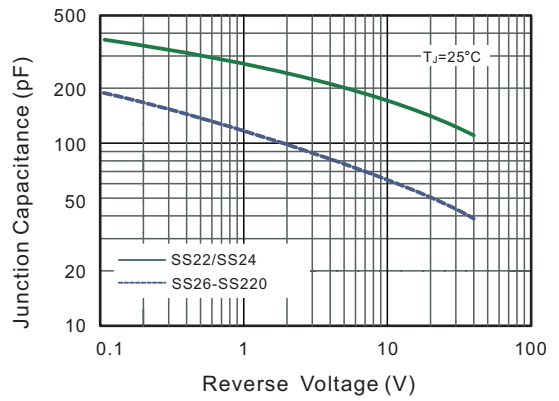
**Fig.2 Typical Reverse Characteristics**



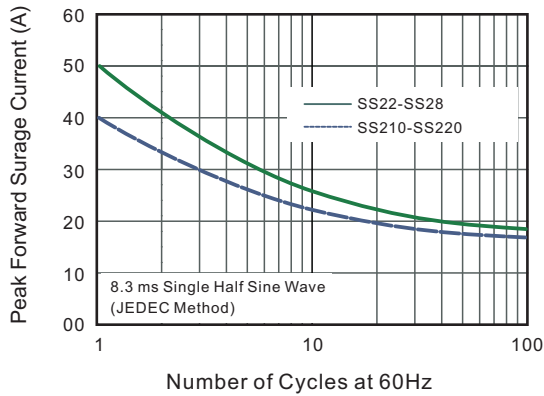
**Fig.3 Typical Forward Characteristic**



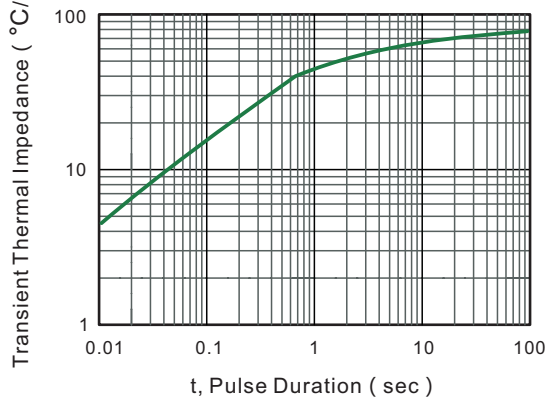
**Fig.4 Typical Junction Capacitance**



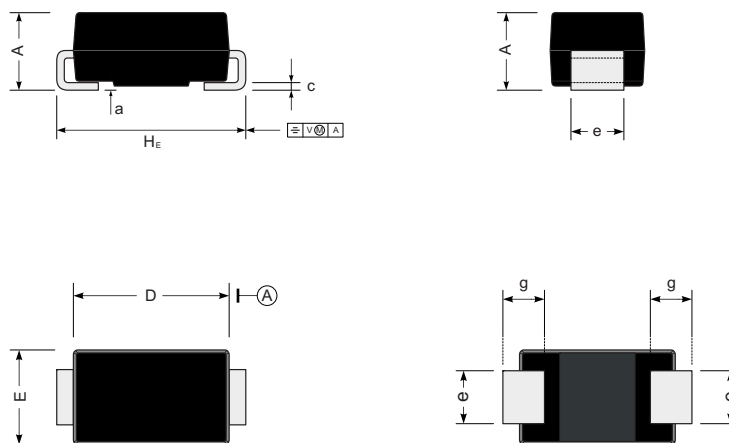
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



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



■ SMA



| UNIT |     | A   | D   | E   | H <sub>E</sub> | c    | e   | g   | a   |
|------|-----|-----|-----|-----|----------------|------|-----|-----|-----|
| mm   | max | 2.2 | 4.5 | 2.7 | 5.2            | 0.31 | 1.6 | 1.5 | 0.3 |
|      | min | 1.9 | 4.0 | 2.3 | 4.7            | 0.15 | 1.3 | 0.9 |     |
| mil  | max | 87  | 181 | 106 | 205            | 12   | 63  | 59  | 12  |
|      | min | 75  | 157 | 91  | 185            | 6    | 51  | 35  |     |

■ The recommended mounting pad size

