


|   |   |             |   |         |   |       |  |
|---|---|-------------|---|---------|---|-------|--|
| Surface Mount Schottky Barrier Rectifier  | Reverse Voltage - 20 to 200 V<br>Forward Current - 1.0A |             |   |         |   |       |  |
| <p style="text-align: center;"><u>SMA</u></p> <p><b>PINNING</b></p> <table border="0"> <tr> <td>PIN</td> <td>DESCRIPTION</td> </tr> <tr> <td>1</td> <td>Cathode</td> </tr> <tr> <td>2</td> <td>Anode</td> </tr> </table>  <p>Top View<br/>Marking Code: SS12 ~ SS120<br/>Simplified outline SMA and symbol</p> | PIN   | DESCRIPTION | 1 | Cathode | 2 | Anode | <p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Metal silicon junction, majority carrier conduction</li> <li>• For surface mounted applications</li> <li>• Low power loss, high efficiency</li> <li>• High forward surge current capability</li> <li>• For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications</li> </ul> <p><b>Mechanical Data</b></p> <ul style="list-style-type: none"> <li>• Case: SMA</li> <li>• Terminals: Solderable per MIL-STD-750, Method 2026</li> <li>• Approx. Weight: 70mg / 0.0025oz</li> </ul> |
| PIN   | DESCRIPTION   |             |   |         |   |       |  |
| 1   | Cathode   |             |   |         |   |       |  |
| 2   | Anode   |             |   |         |   |       |  |

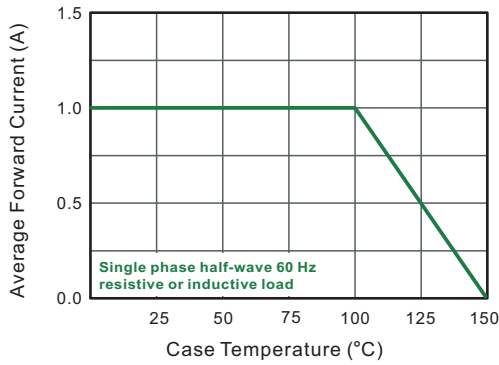
**Absolute Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

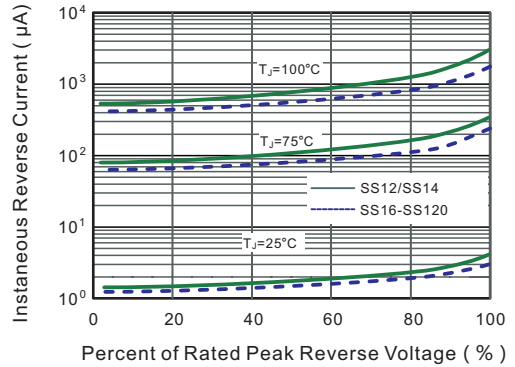
| Parameter   | Symbols         | SS12       | SS14 | SS16 | SS18     | SS110 | SS112    | SS115 | SS120 | Units              |
|---|-----------------|------------|------|------|----------|-------|----------|-------|-------|--------------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 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 at $T_c = 100\text{ }^\circ\text{C}$                            | $I_{F(AV)}$     | 1.0        |      |      |          |       |          |       |       | A                  |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)         | $I_{FSM}$       | 30         |      |      |          |       |          |       |       | A                  |
| Max Instantaneous Forward Voltage at 1 A  | $V_F$           | 0.55       | 0.70 |      | 0.85     |       | 0.90     |       | V     |                    |
| Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$ | $I_R$           | 0.3<br>10  |      |      | 0.2<br>5 |       | 0.1<br>2 |       | mA    |                    |
| Typical Junction Capacitance <sup>(1)</sup>   | $C_j$           | 110        | 80   |      |          |       |          |       |       | pF                 |
| Typical Thermal Resistance <sup>(2)</sup>   | $R_{\theta JA}$ | 90         |      |      |          |       |          |       |       | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range  | $T_j$           | -55 ~ +150 |      |      |          |       |          |       |       | $^\circ\text{C}$   |
| Storage Temperature Range   | $T_{stg}$       | -55 ~ +150 |      |      |          |       |          |       |       | $^\circ\text{C}$   |

( 1 ) Measured at 1MHz 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.

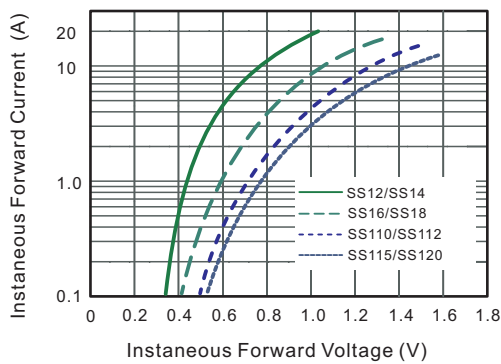
**Fig.1 Forward Current Derating Curve**



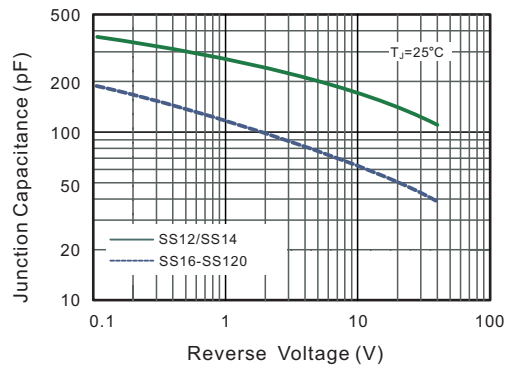
**Fig.2 Typical Reverse Characteristics**



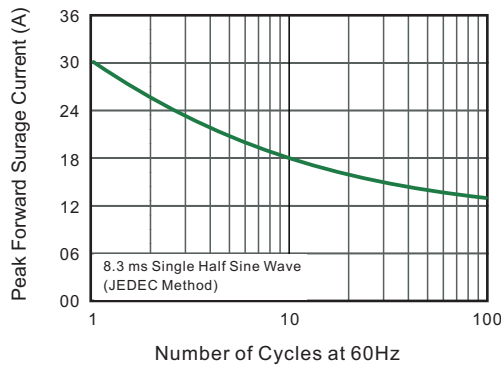
**Fig.3 Typical Forward Characteristic**



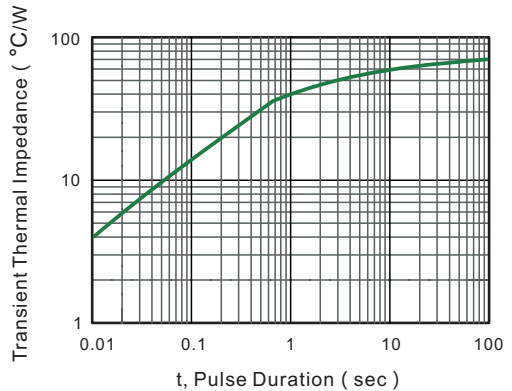
**Fig.4 Typical Junction Capacitance**



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



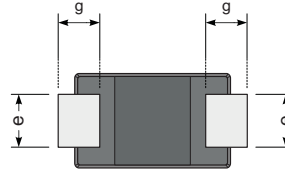
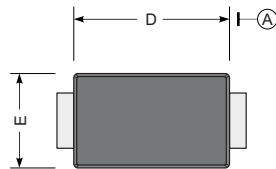
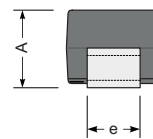
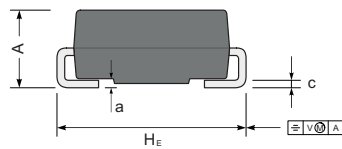
**Fig.6 Typical Transient Thermal Impedance**



**PACKAGE OUTLINE**

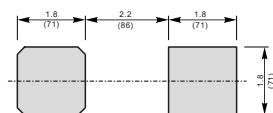
Plastic surface mounted package; 2 leads

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**



Unit :  $\frac{\text{mm}}{\text{mil}}$

**Marking**

| Type number | Marking code |
|-------------|--------------|
| SS12        | SS12         |
| SS14        | SS14         |
| SS16        | SS16         |
| SS18        | SS18         |
| SS110       | SS110        |
| SS112       | SS112        |
| SS115       | SS115        |
| SS120       | SS120        |

单击下面可查看定价，库存，交付和生命周期等信息

[>>DIOS\(迪恩思\)](#)