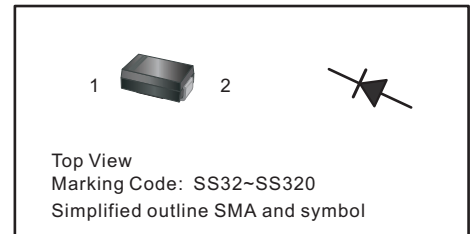




**Surface Mount Schottky Barrier Rectifier**  
**Reverse Voltage - 20 to 200 V**  
**Forward Current - 3.0A**

**PINNING**

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



**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

**MECHANICAL DATA**

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 60mg / 0.0021oz

**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 %

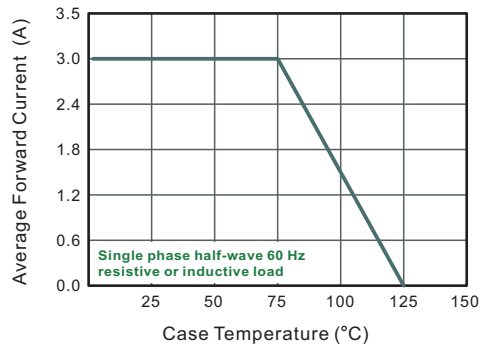
| Parameter                                                                                                 | Symbols            | SS32K      | SS34K | SS36K | SS38K    | SS310K | SS312K | SS315K | SS320K | Units |
|-----------------------------------------------------------------------------------------------------------|--------------------|------------|-------|-------|----------|--------|--------|--------|--------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                                   | V <sub>RRM</sub>   | 20         | 40    | 60    | 80       | 100    | 120    | 150    | 200    | V     |
| Maximum RMS voltage                                                                                       | V <sub>RMS</sub>   | 14         | 28    | 42    | 56       | 70     | 84     | 105    | 140    | V     |
| Maximum DC Blocking Voltage                                                                               | V <sub>DC</sub>    | 20         | 40    | 60    | 80       | 100    | 120    | 150    | 200    | V     |
| Maximum Average Forward Rectified Current                                                                 | I <sub>F(AV)</sub> | 3.0        |       |       |          |        |        |        |        | A     |
| Peak Forward Surge Current,8.3ms<br>Single Half Sine-wave Superimposed<br>on Rated Load (JEDEC method)    | I <sub>FSM</sub>   | 80         |       |       |          |        |        |        |        | A     |
| Max Instantaneous Forward Voltage at 3 A                                                                  | V <sub>F</sub>     | 0.55       | 0.70  |       |          | 0.85   |        | 0.95   |        | V     |
| Maximum DC Reverse Current   T <sub>a</sub> = 25°C<br>at Rated DC Reverse Voltage   T <sub>a</sub> =100°C | I <sub>R</sub>     | 0.5<br>5   |       |       | 0.3<br>3 |        |        |        |        | mA    |
| Typical Junction Capacitance <sup>(1)</sup>                                                               | C <sub>j</sub>     | 450        |       |       | 400      |        |        |        |        | pF    |
| Typical Thermal Resistance <sup>(2)</sup>                                                                 | R <sub>θJA</sub>   | 70         |       |       |          |        |        |        |        | °C/W  |
| Operating Junction Temperature Range                                                                      | T <sub>j</sub>     | -55 ~ +125 |       |       |          |        |        |        |        | °C    |
| Storage Temperature Range                                                                                 | T <sub>stg</sub>   | -55 ~ +150 |       |       |          |        |        |        |        | °C    |

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

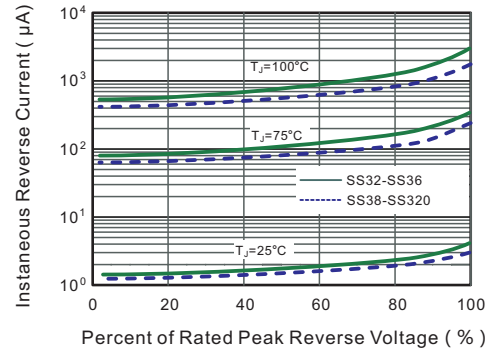
( 2 ) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



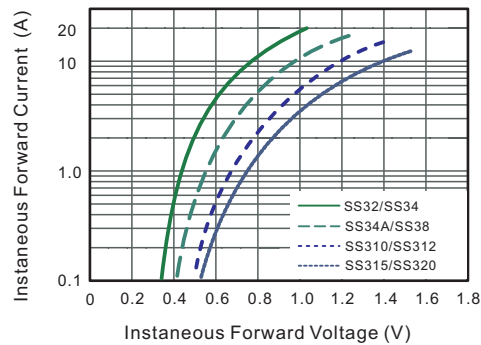
**Fig.1 Forward Current Derating Curve**



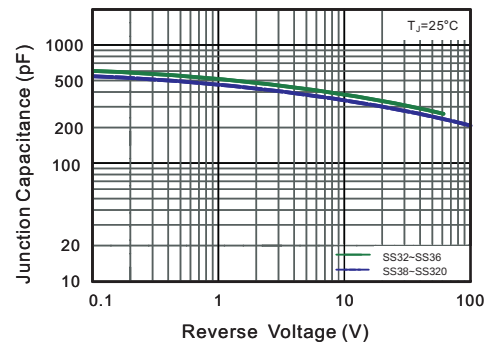
**Fig.2 Typical Reverse Characteristics**



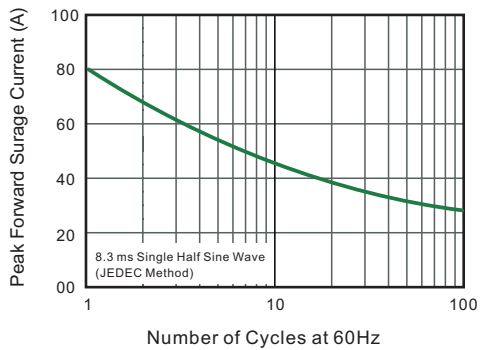
**Fig.3 Typical Forward Characteristic**



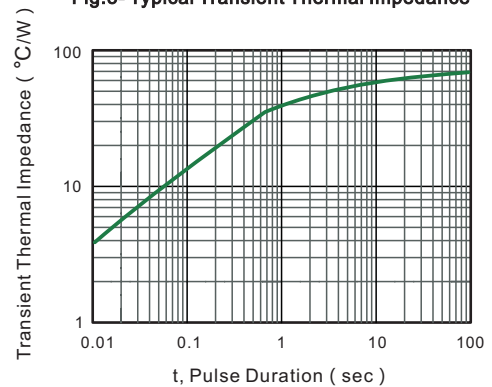
**Fig.4 Typical Junction Capacitance**



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



**Fig.5- Typical Transient Thermal Impedance**

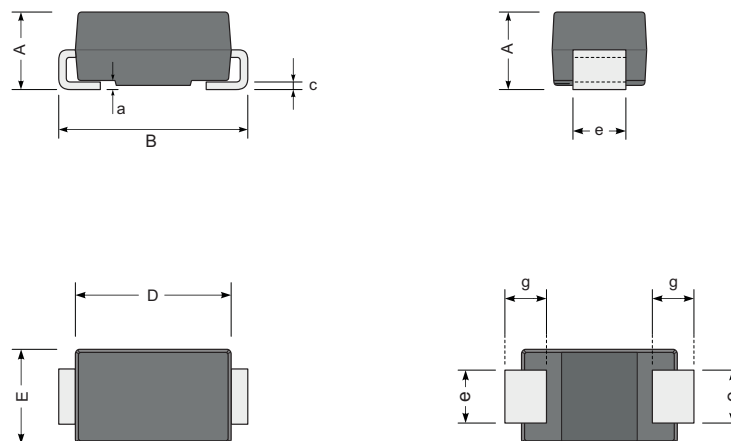




## PACKAGE OUTLINE

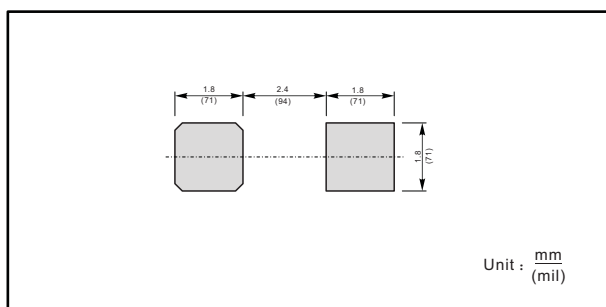
Plastic surface mounted package; 2 leads

**SMAK**



| UNIT |     | A   | D   | E   | B   | c    | e   | g   | a   |
|------|-----|-----|-----|-----|-----|------|-----|-----|-----|
| mm   | max | 2.2 | 4.5 | 2.8 | 5.3 | 0.31 | 1.6 | 1.5 | 0.3 |
|      | min | 1.9 | 4.0 | 2.4 | 4.8 | 0.15 | 1.3 | 0.9 |     |
| mil  | max | 87  | 181 | 110 | 209 | 12   | 63  | 59  | 12  |
|      | min | 75  | 157 | 94  | 189 | 6    | 51  | 35  |     |

## The recommended mounting pad size



## Marking

| Type number | Marking code |
|-------------|--------------|
| SS32K       | SS32K        |
| SS34K       | SS34K        |
| SS36K       | SS36K        |
| SS38K       | SS38K        |
| SS310K      | SS310K       |
| SS312K      | SS312K       |
| SS315K      | SS315K       |
| SS320K      | SS320K       |