

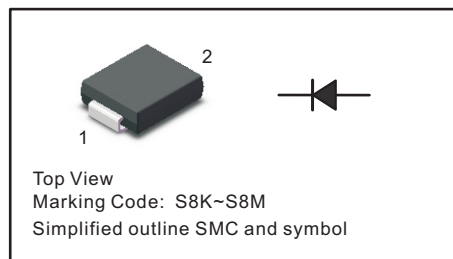


## S8K THRU S8M

### Surface Mount Standard Rectifiers

#### PINNING

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



#### FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

#### MECHANICAL DATA

- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz

#### 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                            | S8K        | S8M  | Units                |
|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------|------|----------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                                                 | $V_{RRM}$                          | 800        | 1000 | V                    |
| Maximum RMS voltage                                                                                                                     | $V_{RMS}$                          | 560        | 700  | V                    |
| Maximum DC Blocking Voltage                                                                                                             | $V_{DC}$                           | 800        | 1000 | V                    |
| Maximum Average Forward Rectified Current                                                                                               | $I_{F(AV)}$                        | 8          |      | A                    |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load                                                      | $I_{FSM}$                          | 200        |      | A                    |
| Maximum Instantaneous Forward Voltage at 8 A                                                                                            | $V_F$                              | 0.985      |      | V                    |
| Maximum DC Reverse Current<br>$T_a = 25\text{ }^{\circ}\text{C}$<br>at Rated DC Blocking Voltage<br>$T_a = 125\text{ }^{\circ}\text{C}$ | $I_R$                              | 10<br>250  |      | $\mu\text{A}$        |
| Typical Junction Capacitance <sup>(1)</sup>                                                                                             | $C_j$                              | 40         |      | pF                   |
| Typical Thermal Resistance <sup>(2)</sup>                                                                                               | $R_{\theta JA}$<br>$R_{\theta JC}$ | 35<br>13   |      | $^{\circ}\text{C/W}$ |
| Operating and Storage Temperature Range                                                                                                 | $T_j, T_{stg}$                     | -55 ~ +150 |      | $^{\circ}\text{C}$   |

(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.



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Fig.1 Forward Current Derating Curve

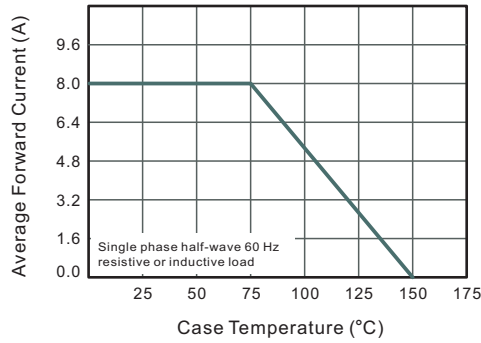


Fig.2 Typical Reverse Characteristics

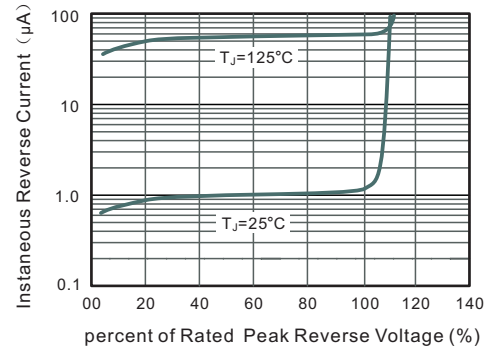


Fig.3 Typical Forward Characteristic

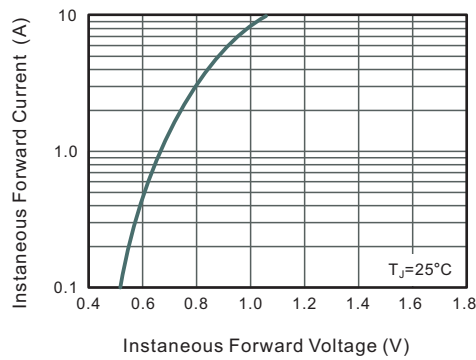


Fig.4 Typical Junction Capacitance

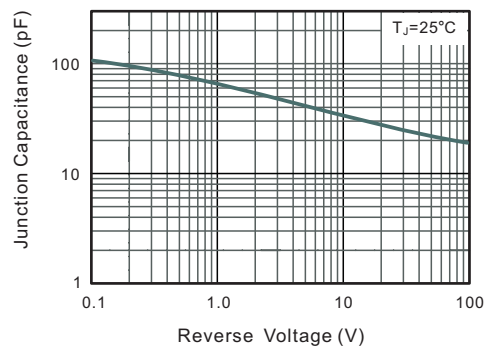
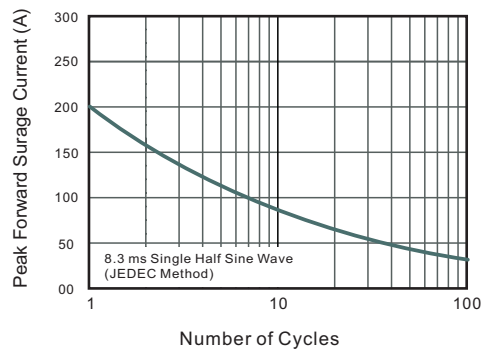


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



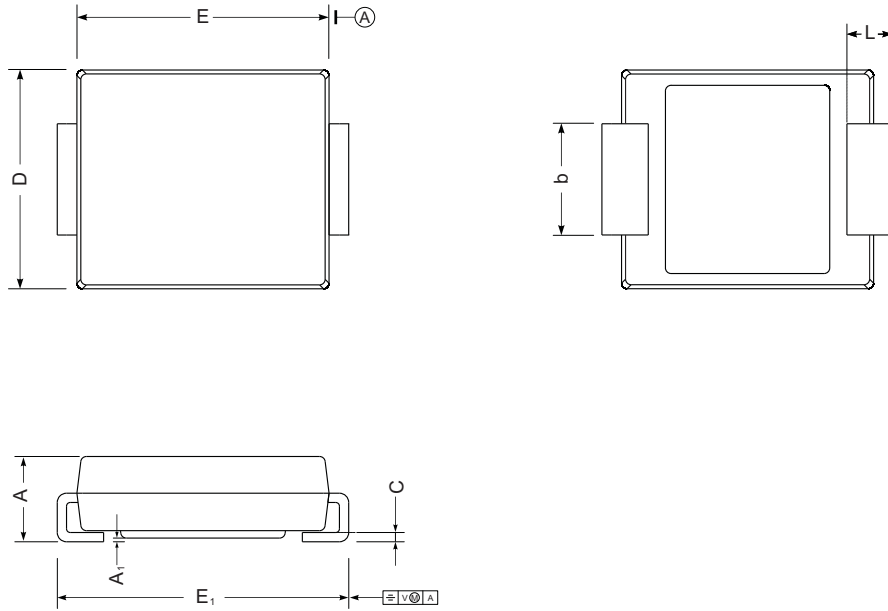


# S8K THRU S8M

## Surface Mount Standard Rectifiers

Plastic surface mounted package; 2 leads

SMC



SMC mechanical data

| UNIT |     | A    | E   | D   | E <sub>1</sub> | A <sub>1</sub> | C    | L   | b    |
|------|-----|------|-----|-----|----------------|----------------|------|-----|------|
| mm   | max | 2.62 | 7.0 | 6.2 | 8.0            | 0.21           | 0.31 | 1.6 | 3.25 |
|      | min | 2.00 | 6.5 | 5.6 | 7.6            | 0.05           | 0.15 | 0.9 | 2.75 |
| mil  | max | 103  | 276 | 244 | 315            | 8.3            | 12   | 63  | 128  |
|      | min | 79   | 256 | 220 | 299            | 2.0            | 5.9  | 35  | 108  |

### The recommended mounting pad size

