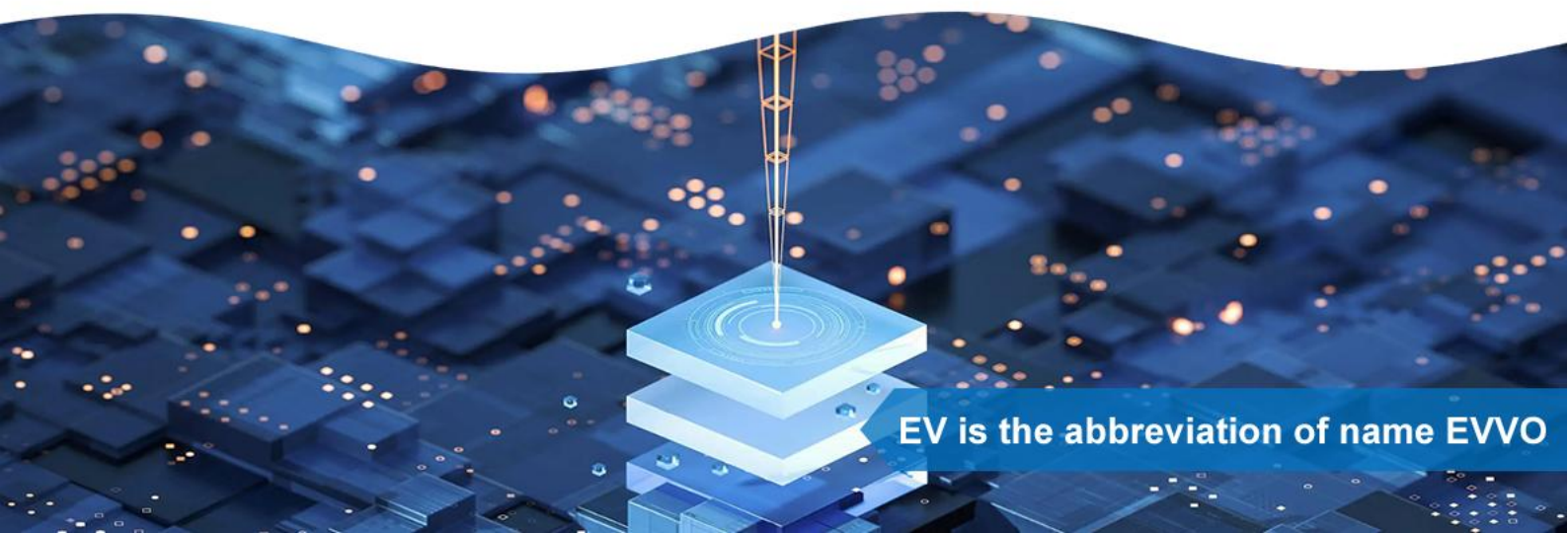
EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

# Product Specification

| | |
|---|---|
| Domestic Part Number | SK54C |
| Overseas Part Number | SK54C |
| Equivalent Part Number | SK54C |



## Surface Mount Schottky Barrier Rectifier
## Reverse Voltage - 40V
## Forward Current - 5.0A

**PINNING**

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


Top View
Marking Code: SS54
Simplified outline SMC and symbol

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

### 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 | SK54C | Units |
|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 40 | V |
| Maximum RMS voltage | $V_{RMS}$ | 28 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 40 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 5.0 | A |
| Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$ | 175 | A |
| Max Instantaneous Forward Voltage at 5 A | $V_F$ | 0.55 | V |
| Maximum DC Reverse Current $T_a$ = 25°C<br>at Rated DC Reverse Voltage $T_a$ =100°C | $I_R$ | 1.0<br>50 | mA |
| Typical Junction Capacitance (1) | $C_j$ | 600 | pF |
| Typical Thermal Resistance (2) | $R_{\theta JA}$ | 35 | °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**

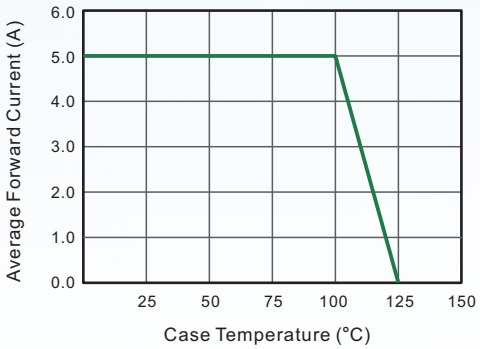



**Fig.2 Typical Reverse Characteristics**

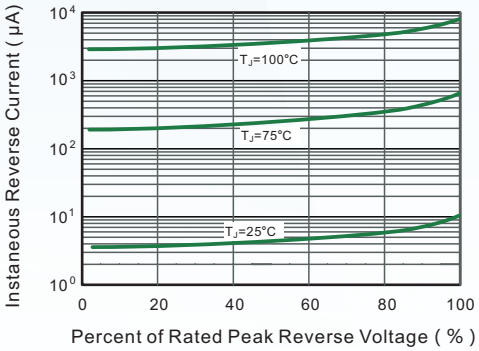



**Fig.3 Typical Forward Characteristic**

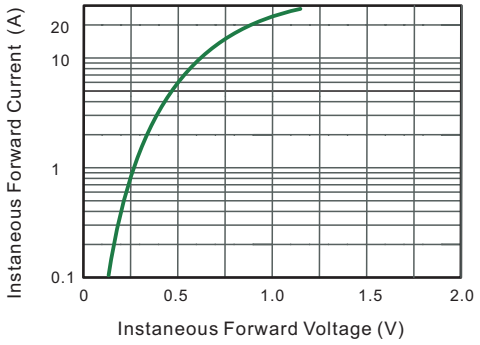



**Fig.4 Typical Junction Capacitance**

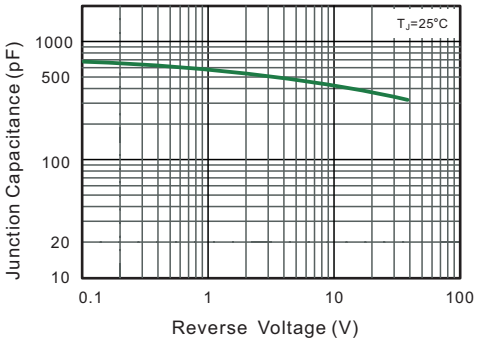



**Fig.5 Maximum Non-Repetitive Peak Forward Surage Current**

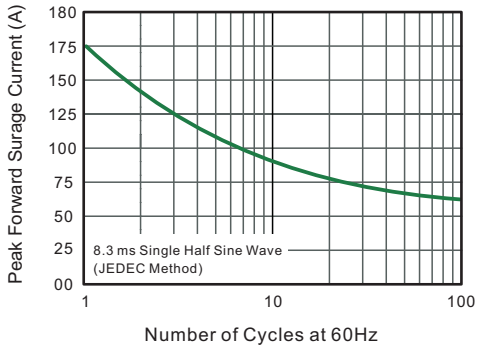
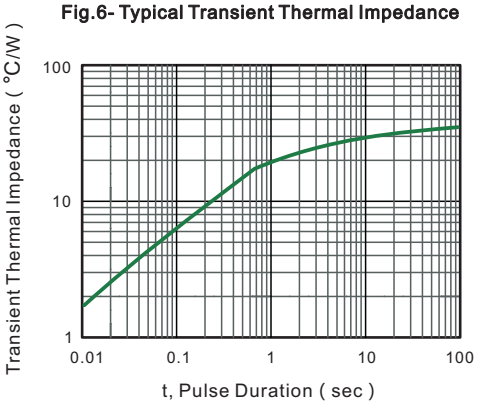
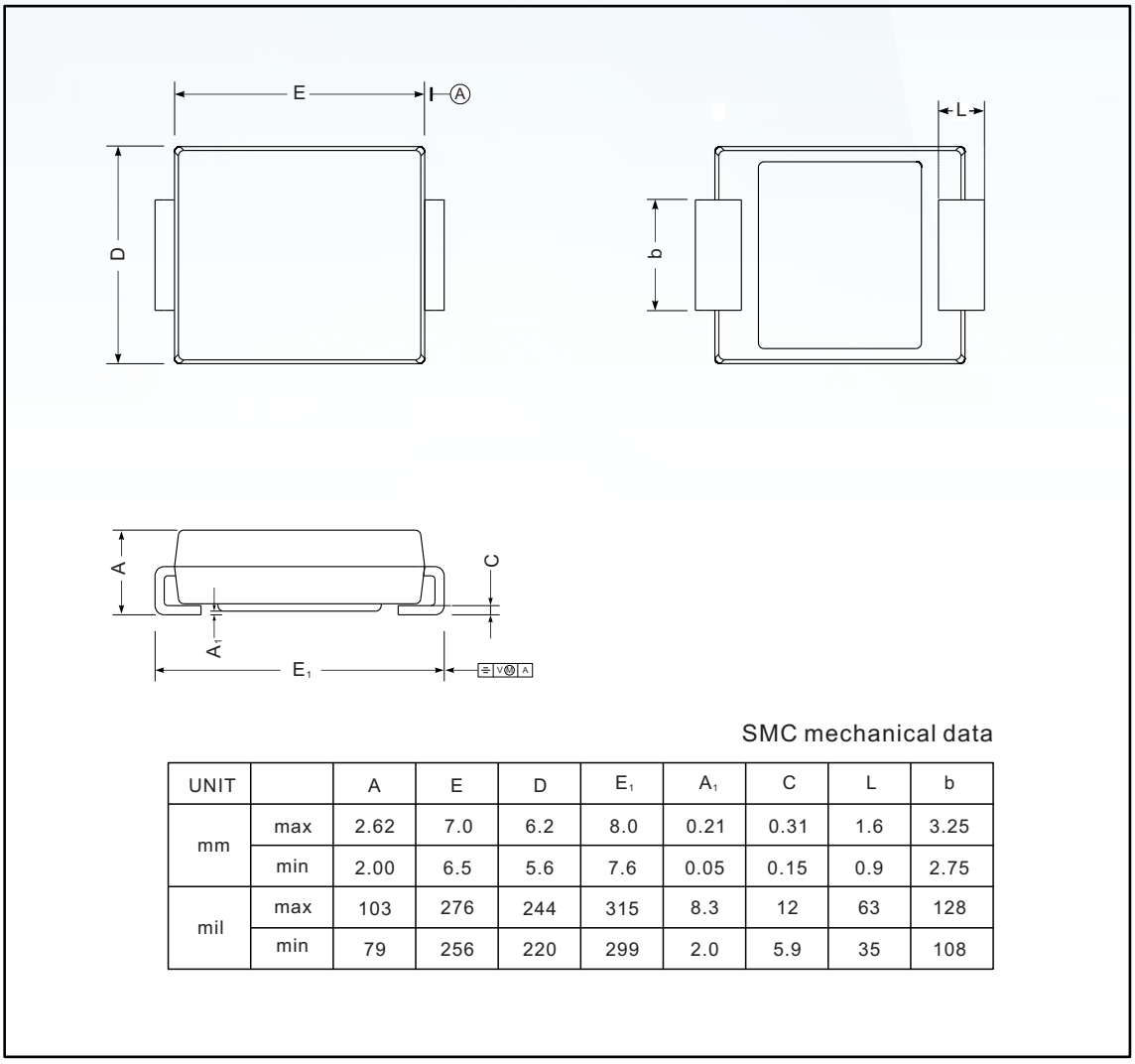



**Fig.6- Typical Transient Thermal Impedance**



## PACKAGE OUTLINE

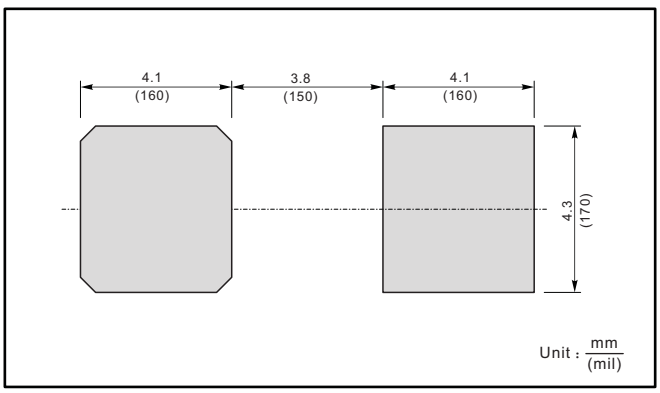
**Plastic surface mounted package; 2 leads**




SMC mechanical data

| UNIT | | A | E | D | $E_1$ | $A_1$ | 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




### Marking

| Type number | Marking code |
|---|---|
| SK54C | SS54 |

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