



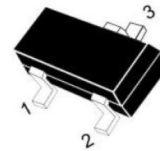
SSCSBAT54/A/C/SS6 Series

Schottky Barrier Diode

- **Features**

- ✧ Extremely fast switching speed
- ✧ Low forward voltage
- ✧ Very small conduction losses

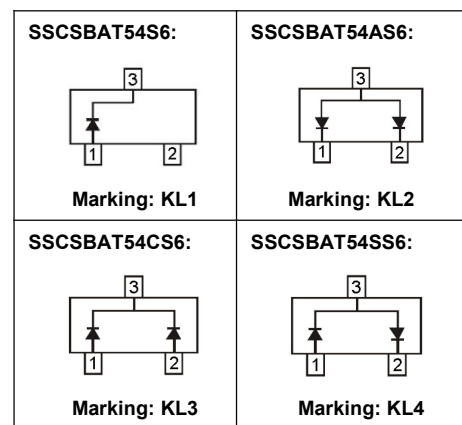
- **PIN configuration**



SOT-23

- **Applications**

- ✧ Ultra high-speed switching
- ✧ Voltage clamping
- ✧ Protection circuits
- ✧ Blocking diodes



Circuit Diagram

- **Absolute maximum rating @T_A=25°C**

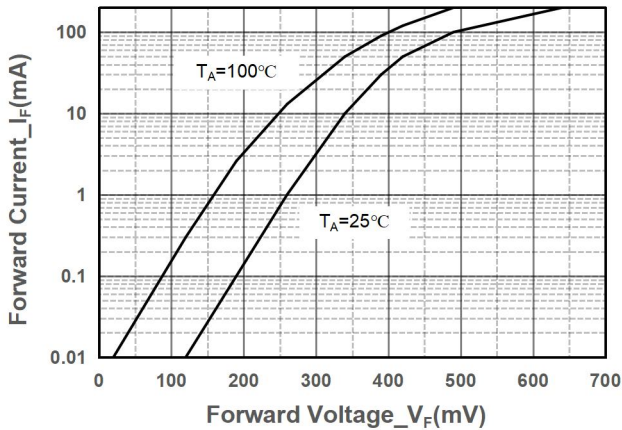
| Parameter | Symbol | Value | Unit |
|---|------------------|------------|------|
| Reverse Voltage (DC) | V _R | 30 | V |
| Average Rectified Forward Current | I _{FM} | 200 | mA |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms | I _{FSM} | 600 | mA |
| Power Dissipation | P _D | 200 | mW |
| Thermal Resistance from Junction to Ambient | R _{θJA} | 500 | °C/W |
| Junction Temperature | T _J | 125 | °C |
| Storage Temperature | T _{STG} | -55 ~ +150 | °C |



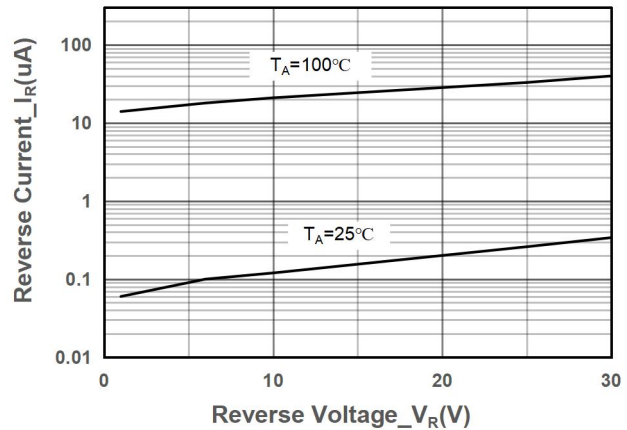
● **Electrical Characteristics @T_A=25°C**

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-----------------------|-----------------|--|------|------|------|------|
| Reverse Voltage | V _R | I _R = 100uA | 30 | | | V |
| Forward Voltage | V _F | I _F = 0.1mA | | | 0.23 | V |
| | | I _F = 1mA | | | 0.30 | V |
| | | I _F = 10mA | | | 0.40 | V |
| | | I _F = 30mA | | | 0.50 | V |
| | | I _F = 100mA | | | 1.00 | V |
| Reverse Current | I _R | V _R = 25V | | | 2 | uA |
| Junction Capacitance | C _J | V _R =1V,f=1MHz | | | 10 | pF |
| Reverse recovery time | t _{rr} | I _F =I _R =10mA,R _L =100Ω,I _{RR} =0.1I _R | | | 5 | ns |

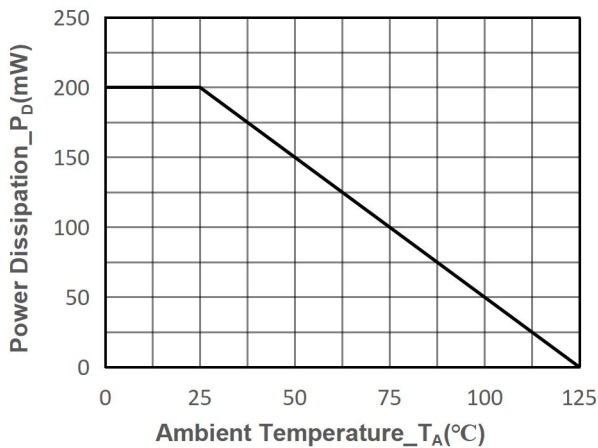
● **Typical Performance Characteristics**



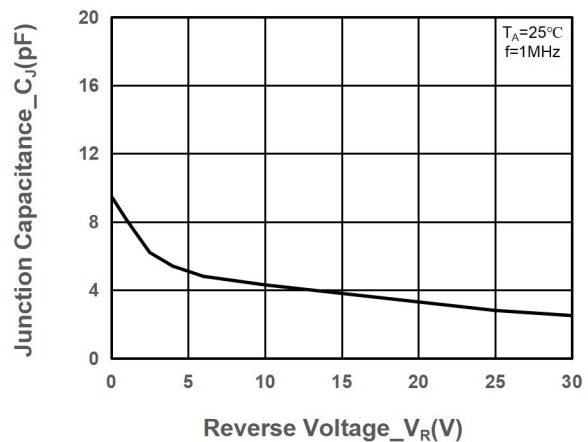
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



● Package Information

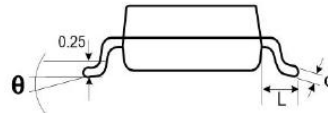
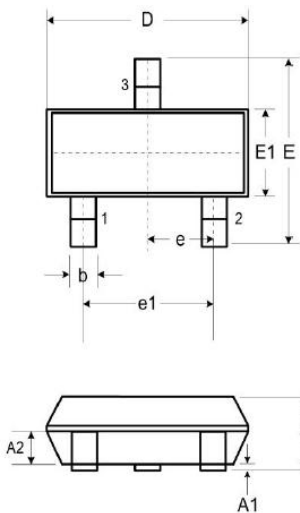
Ordering Information

| Device | Package | Marking | Qty per Reel | Reel Size |
|--------------|---------|---------|--------------|-----------|
| SSCSBAT54S6 | SOT-23 | KL1 | 3000 | 7 Inch |
| SSCSBAT54AS6 | SOT-23 | KL2 | 3000 | 7 Inch |
| SSCSBAT54CS6 | SOT-23 | KL3 | 3000 | 7 Inch |
| SSCSBAT54SS6 | SOT-23 | KL4 | 3000 | 7 Inch |

Mechanical Data

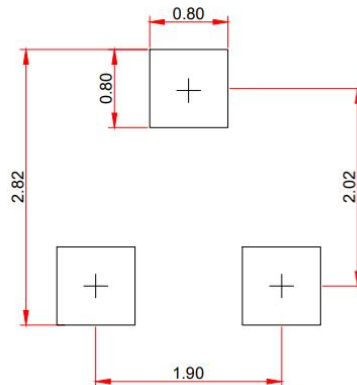
Case: SOT-23

Case Material: Molded Plastic. UL Flammability



| DIM | Millimeters | | |
|-----|-------------|------|------|
| | Min. | Typ. | Max. |
| A | 0.89 | - | 1.12 |
| A1 | 0.01 | - | 0.10 |
| A2 | 0.88 | 0.95 | 1.02 |
| b | 0.30 | - | 0.51 |
| c | 0.08 | - | 0.18 |
| D | 2.80 | 2.90 | 3.04 |
| E | 2.10 | 2.37 | 2.64 |
| E1 | 1.20 | 1.30 | 1.40 |
| e1 | 1.90 | | |
| e | 0.95 | | |
| L | 0.40 | 0.50 | 0.60 |
| L1 | 0.55 | | |
| N | 3 | | |
| θ | 0° | - | 8° |

Recommended Pad outline (Unit: mm)





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