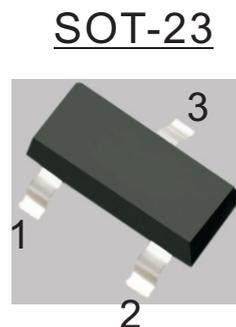
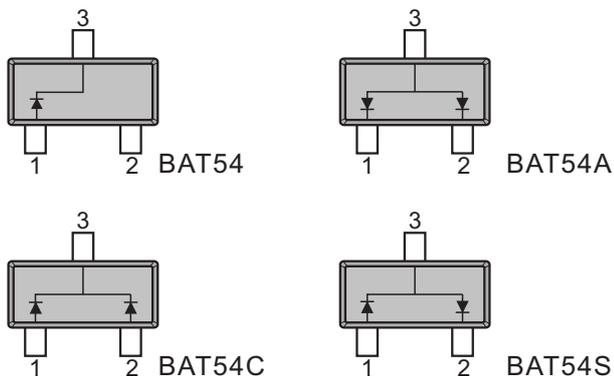




**SCHOTTKY BARRIER DIODE
FEATURES**

- Extremely Fast Switching Speed



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|------------|------------|------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 30 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Blocking Voltage | V_R | | |
| Forward Continuous Current | I_{FM} | 200 | mA |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms | I_{FSM} | 600 | mA |
| Repetitive Peak Forward Current @ t≤1s, δ≤0.5 | I_{FRM} | 300 | mA |
| Power Dissipation | P_D | 200 | mW |
| Thermal Resistance from Junction to Ambient | R_{thJA} | 500 | °C/W |
| Operating Junction Temperature Range | T_j | -40~ +125 | °C |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | °C |

ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|-----------------------|----------|---|-----|-----|------|------|
| Reverse voltage | V_{BR} | $I_R=100\mu A$ | 30 | | | V |
| Reverse current | I_R | $V_R=25V$ | | | 2 | uA |
| Forward voltage | V_F | $I_{F1}=0.1mA$ | | | 0.24 | V |
| | | $I_{F2}=1mA$ | | | 0.32 | V |
| | | $I_{F3}=10mA$ | | | 0.40 | V |
| | | $I_{F4}=30mA$ | | | 0.50 | V |
| | | $I_{F5}=100mA$ | | | 1 | V |
| Diode capacitance | C_D | $V_R=4V, f=1MHz$ | | 10 | | pF |
| Reverse recovery time | t_{rr} | $I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$ | | | 5 | ns |



Fig.1 Power Derating Curve

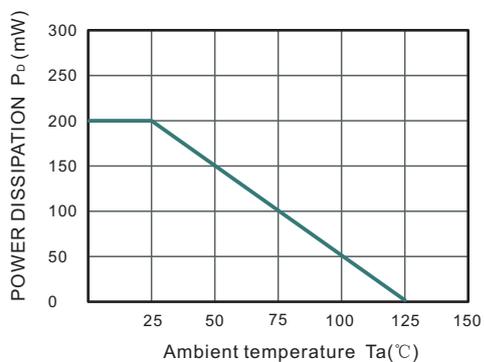


Fig.2 Reverse Characteristics

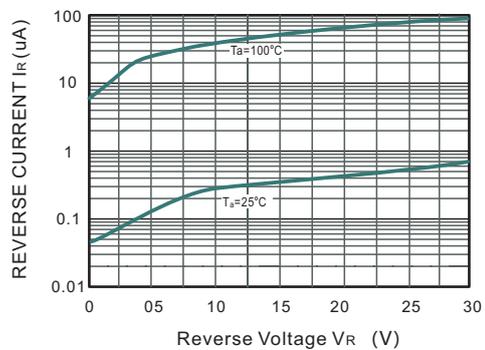


Fig.3 Forward Characteristics

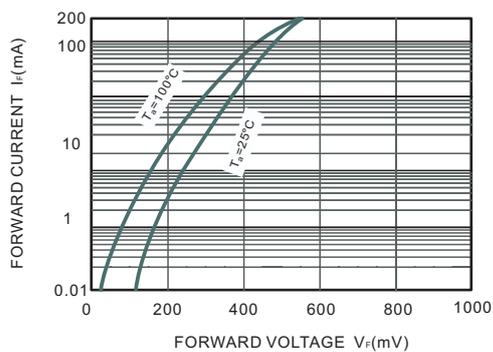
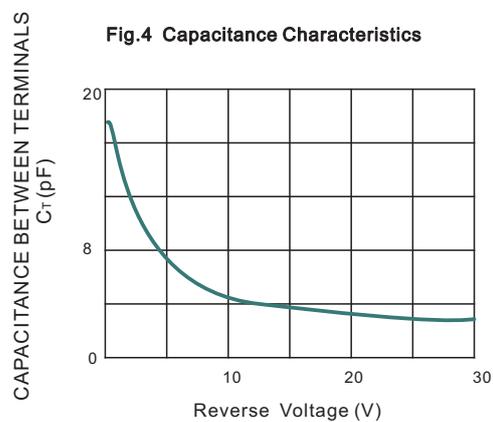
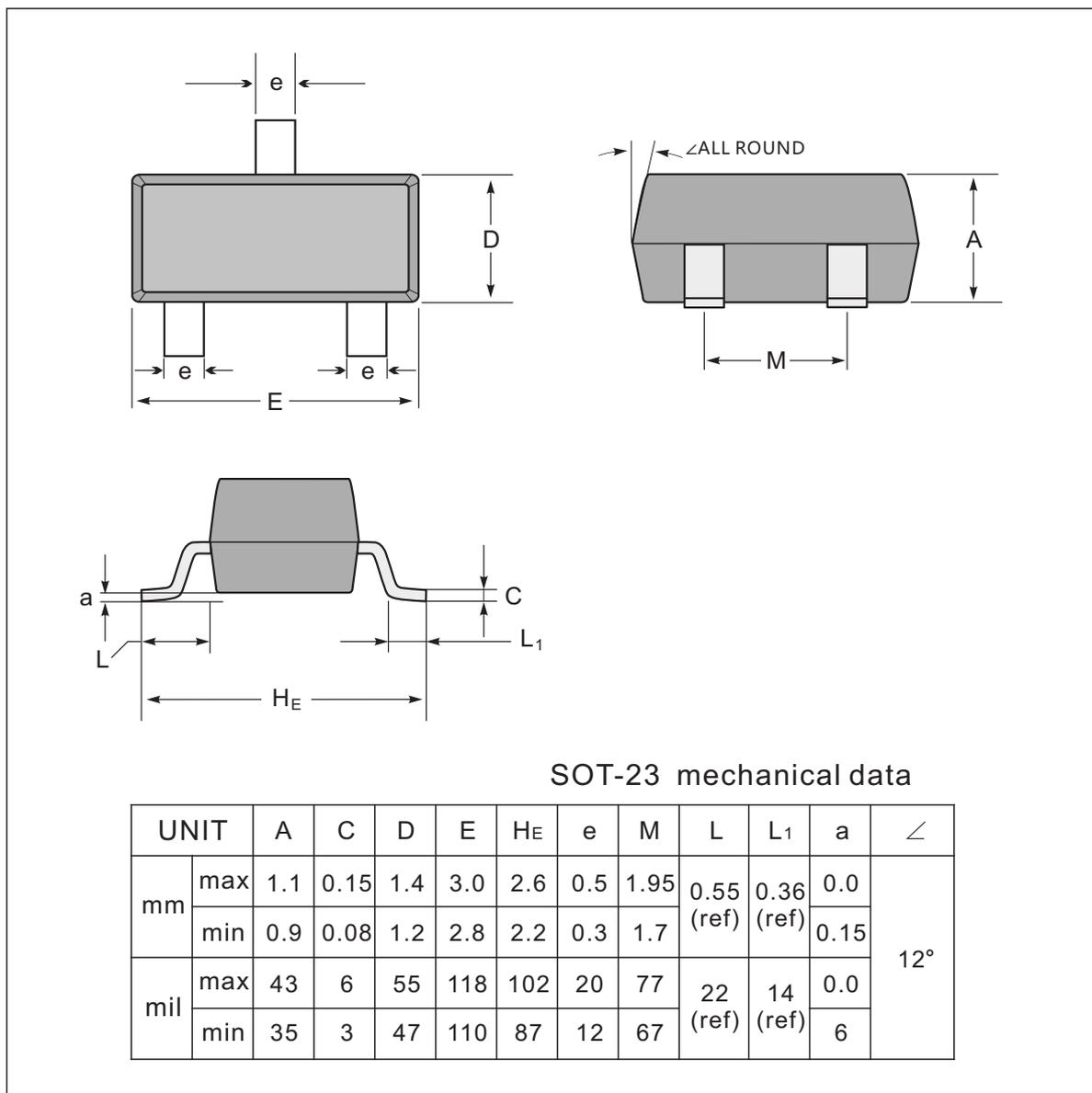


Fig.4 Capacitance Characteristics

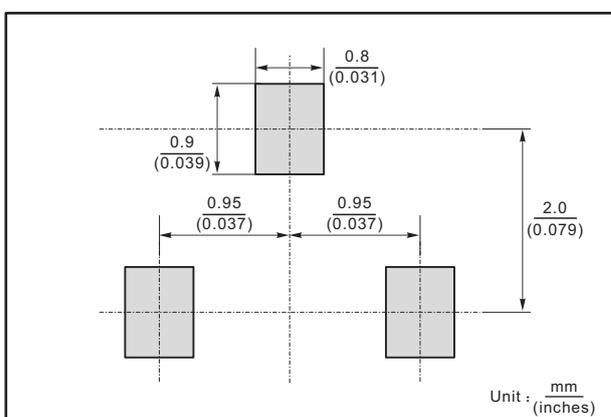




SOT-23 Package Outline Dimensions



The recommended mounting pad size



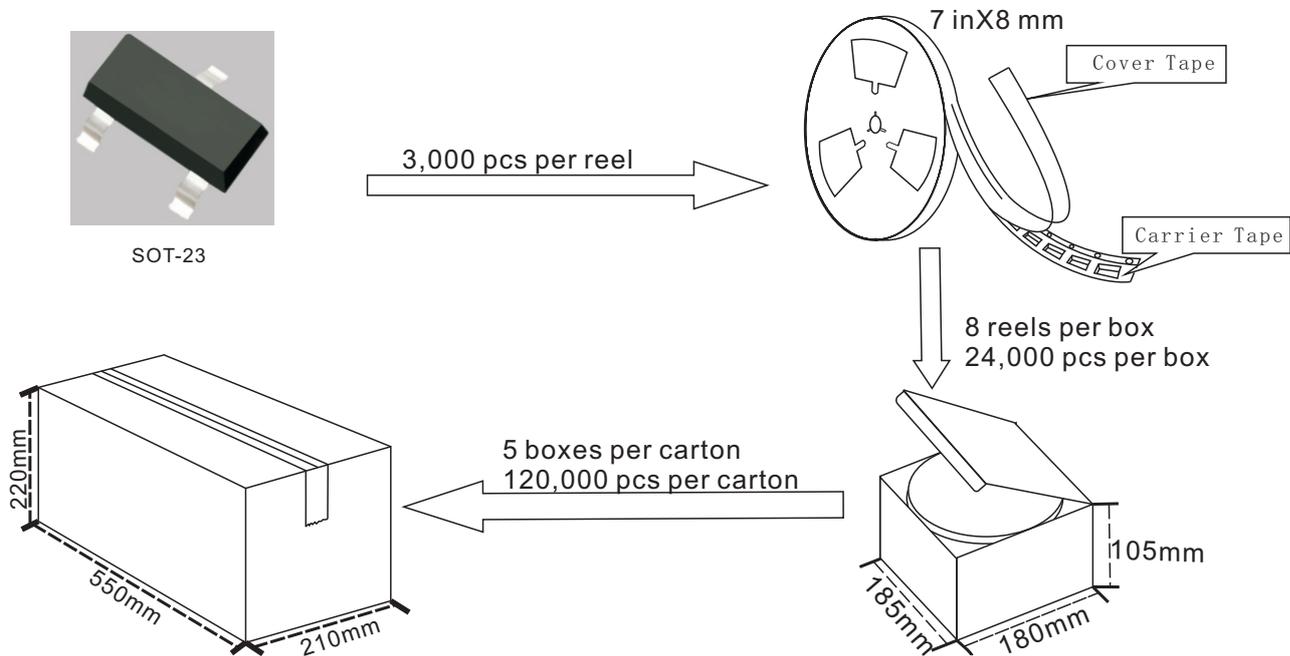
Marking

| Type number | Marking code |
|-------------|--------------|
| BAT54 | KL1 |
| BAT54A | KL2 |
| BAT54C | KL3 |
| BAT54S | KL4 |

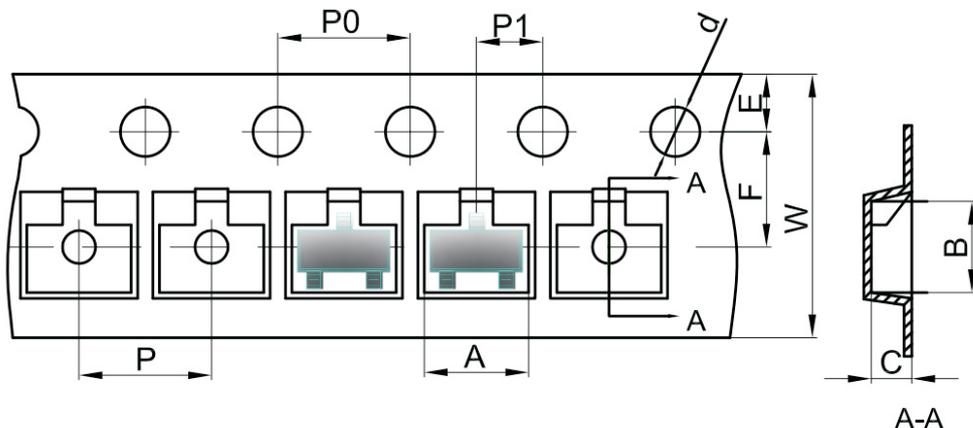


SOT-23 Packing

1. The method of packaging and dimension are shown as below figure. (Dimension in mm)



SOT-23 Embossed Carrier Tape



Dimensions are in millimeter

| Pkg type | A | B | C | d | E | F | P0 | P | P1 | W |
|----------|------|------|------|-------|------|------|------|------|------|------|
| SOT-23 | 3.15 | 2.77 | 1.22 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

SOT-23 Tape Leader and Trailer

