

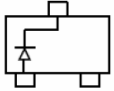
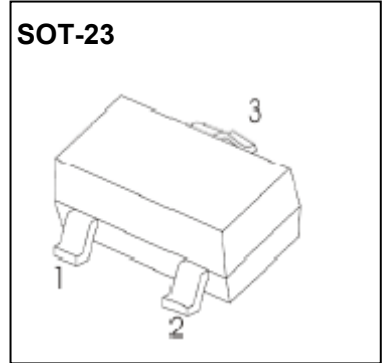
SOT-23 Plastic-Encapsulate Diodes

BAT54/A/C/S SCHOTTKY BARRIER DIODE

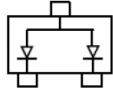
SOT-23

FEATURES

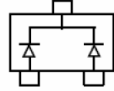
- Extremely Fast Switching Speed



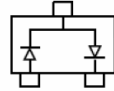
BAT54 MARKING: KL1



BAT54A MARKING: KL2



BAT54C MARKING: KL3



BAT54S MARKING: KL4

MARKING:

| BAT54 | BAT54A | BAT54C | BAT54S |
|-------|--------|--------|--------|
| | | | |

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ 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 @ $t=8.3\text{ms}$ | I_{FSM} | 600 | mA |
| Repetitive Peak Forward Current @ $t \leq 1\text{s}, \delta \leq 0.5$ | I_{FRM} | 300 | mA |
| Power Dissipation | P_D | 200 | mW |
| Thermal Resistance from Junction to Ambient | $R_{\theta JA}$ | 500 | $^\circ\text{C}/\text{W}$ |
| Junction Temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55~+150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS($T_a=25^\circ\text{C}$ unless otherwise specified)

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

Typical Characteristics

