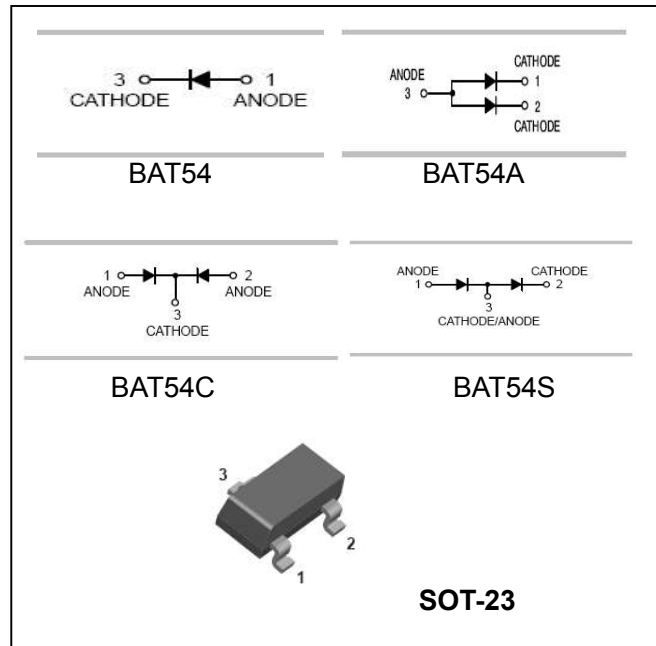


FEATURES

- Fast switching .
- Low Turn-on voltage.
- PN Junction Guard Ring for Transient and ESD Protection.
- Available in Lead Free Version.



ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| BAT54 | KL1 | SOT-23 |
| BAT54A | KL2 | SOT-23 |
| BAT54C | KL3 | SOT-23 |
| BAT54S | KL4 | SOT-23 |

MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Parameter | Symbol | Limits | Unit |
|---|-----------------|-------------|------|
| Peak Repetitive Peak reverse voltage | V_{RRM} | 30 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Reverse Voltage | V_R | | |
| Forward Continuous Current | I_F | 200 | mA |
| Repetitive Peak Forward Current | I_{FRM} | 300 | mA |
| Forward surge current | I_{FSM} | 600 | mA |
| Power Dissipation | P_d | 200 | mW |
| Thermal resistance, junction to ambient air | $R_{\theta JA}$ | 500 | °C/W |
| Operating and Storage temperature | T_J, T_{STG} | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|---------------------------|------------|------|------|------|---------|--|
| Reverse Breakdown Voltage | $V_{(BR)}$ | 30 | | | V | $I_R=100\mu A$ |
| Forward voltage | V_{F1} | | | 0.24 | V | $I_F=0.1mA$ |
| | | | | 0.32 | V | $I_F=1mA$ |
| | | | | 0.40 | V | $I_F=10mA$ |
| | | | | 0.50 | V | $I_F=30mA$ |
| | | | | 0.8 | V | $I_F=100mA$ |
| Reverse current | I_R | | | 2 | μA | $V_R=25V$ |
| Diode Capacitance | C_D | | | 10 | pF | $V_R=1V, f=1MHz$ |
| Reverse Recovery Time | t_{rr} | | | 5 | ns | $I_F=I_R=10mA$ $I_{rr}=0.1I_R, R_L=100\Omega$ |

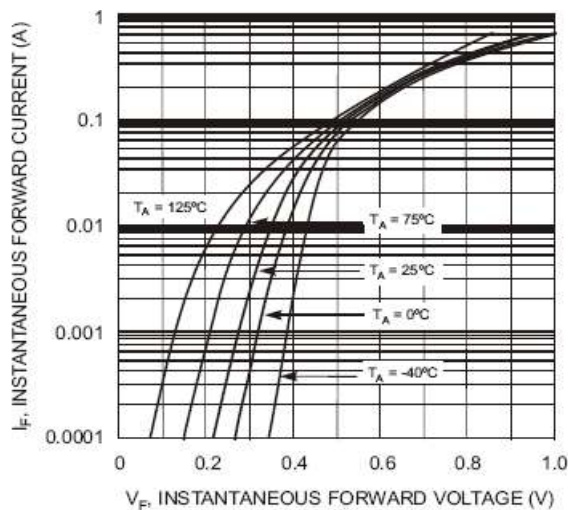
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified


Fig. 1 Forward Characteristics

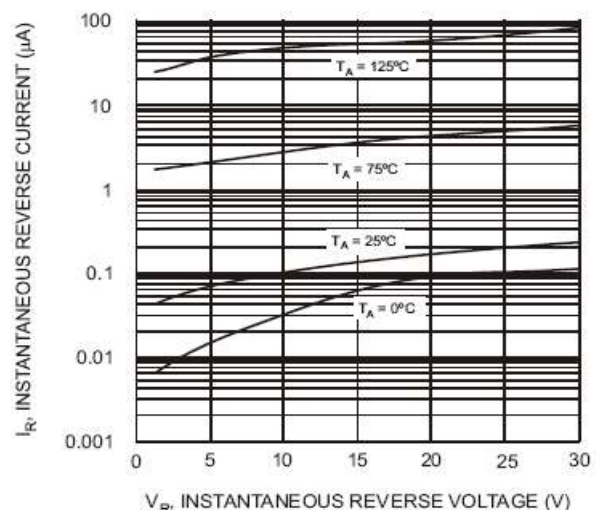


Fig. 2 Typical Reverse Characteristics

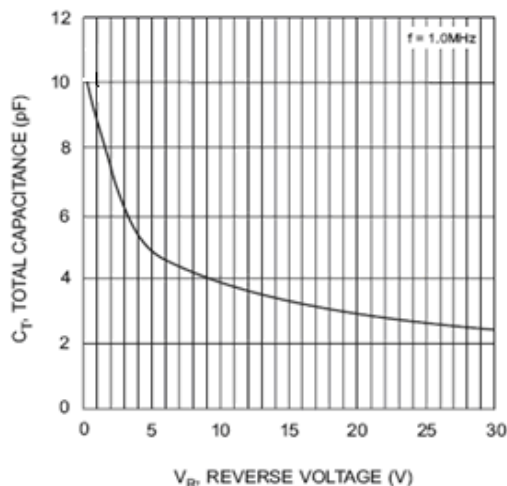


Fig. 3 Typical Capacitance vs. Reverse Voltage

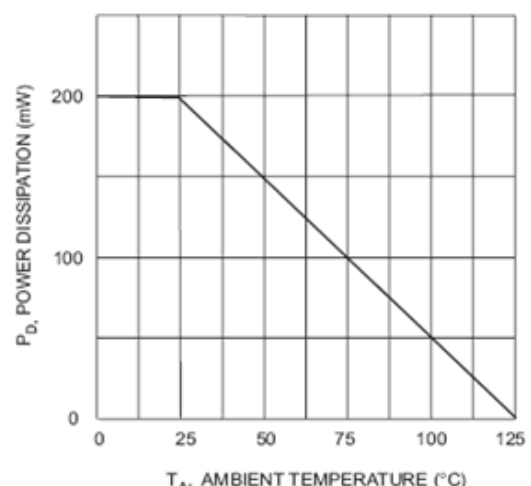
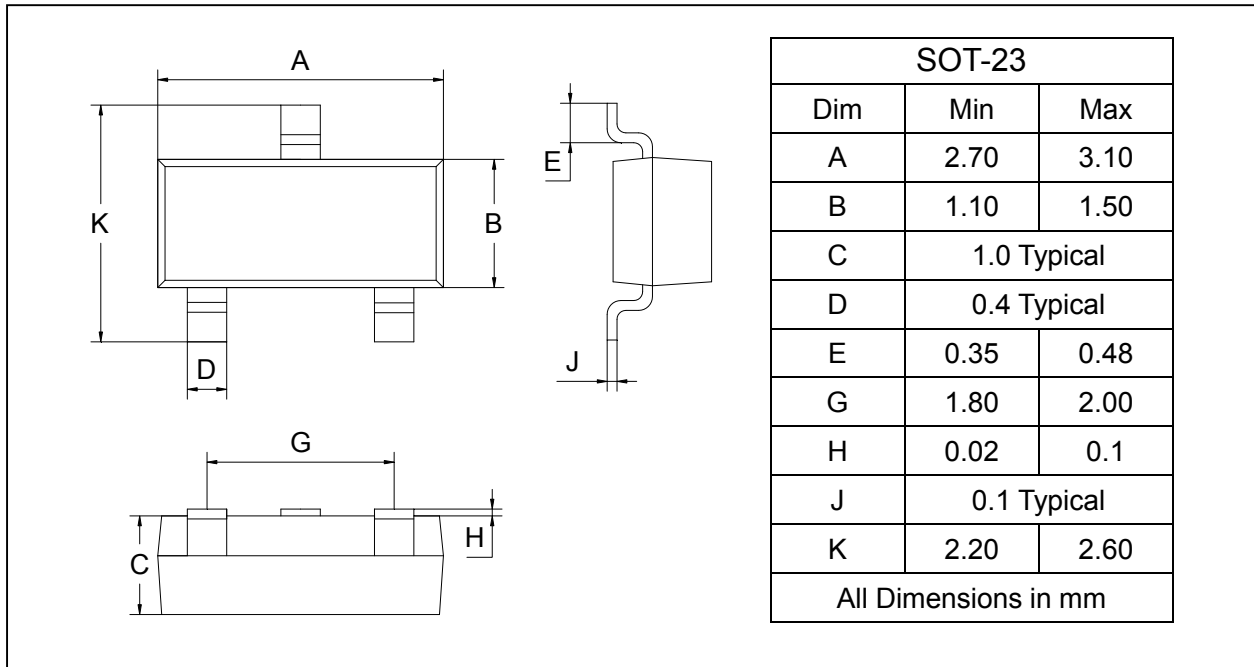


Fig. 4 Power Derating Curve

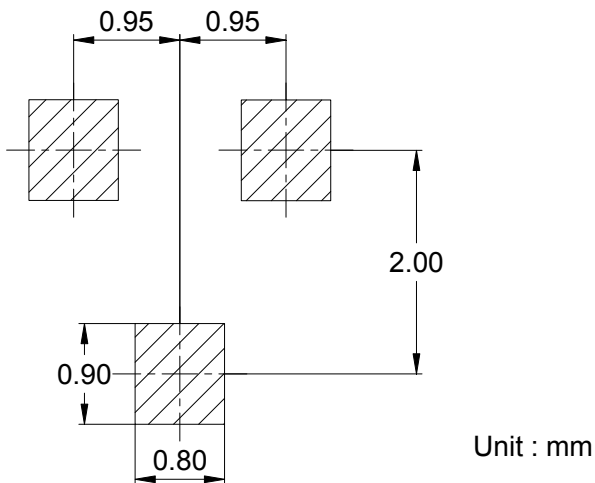
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

| Device | Package | Shipping |
|-------------|---------|----------------|
| BAT54/A/C/S | SOT-23 | 3000/Tape&Reel |