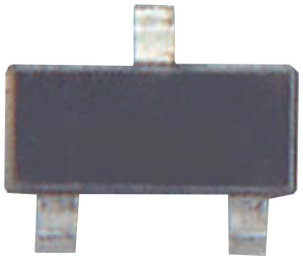
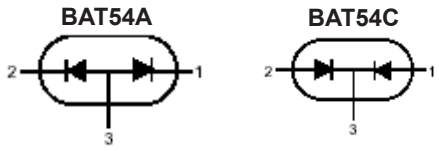
# Low Power Schottky Diode



## Features:

- Very low turn-on voltage and ultra-fast switching diodes, suitable for UHF detectors and other high frequency switching circuits
- Supplied on 8mm tape

## SOT-23 Formed SMD Package




Pin Configuration
1 = Anode
2 = NC
3 = Cathode

## Absolute Maximum Ratings (per Diode):

| Description | Symbol | | Values | Unit |
|---|---|---|---|---|
| Continuous reverse voltage | $V_R$ | Max. | 30 | V |
| Forward current (DC) | $I_F$ | | 200 | mA |
| Forward voltage at $I_F$ = 10mA | $V_F$ | < | 400 | mV |
| Reverse recovery time when switched from $I_F$ = 10mA to $I_R$ = 10mA; $R_L$ = 100W; measured at $I_R$ = 1mA | $t_{rr}$ | < | 5 | ns |
| Junction temperature | $T_j$ | Max. | 125 | °C |

## Ratings (at $T_A$ = +25°C unless otherwise specified)

| Description | Symbol | | Values | Unit |
|---|---|---|---|---|
| Continuous reverse voltage | $V_R$ | Max. | 30 | V |
| Forward current (DC) | $I_F$ | | 200 | mA |
| Repetitive peak forward current | $I_{FRM}$ | | 300 | |
| Non-Repetitive peak forward current t <1s | $I_{FSM}$ | | 600 | |
| Storage temperature | $T_{stg}$ | -55°C to +150°C | | |
| Junction temperature | $T_j$ | Max. | 125 | °C |

**Thermal Resistance**

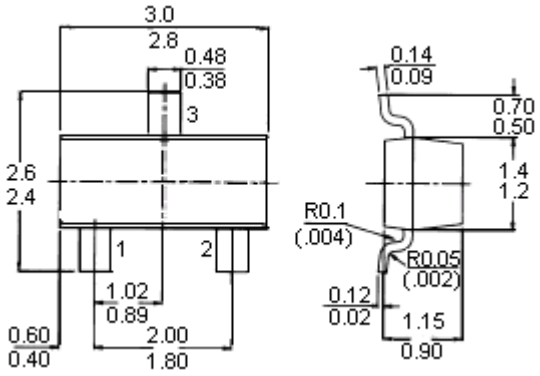
| | | | | |
|---|---|---|---|---|
| From junction to ambient; mounted on a ceramic substrate of 10mm × 8mm × 0.6mm | $R_{th\ (j-a)}$ | = | 430 | K/W |

# Low Power Schottky Diode

## Characteristics $T_A$ = 25°C unless otherwise specified

| Description | Symbol | | Values | Unit |
|---|---|---|---|---|
| Forward voltage<br>$I_F$ = 0.1mA<br>$I_F$ = 1mA*<br>$I_F$ = 10mA<br>$I_F$ = 30mA*<br>$I_F$ = 100mA | $V_F$ | Max.<br>Max.<br>Max.<br>Max.<br>Typ.<br>Max. | 240<br>320<br>400<br>500<br>500<br>1,000 | mV |
| Reverse current<br>$V_R$ = 25V | $I_R$ | < | 2 | µA |
| Reverse breakdown voltage | $V_{(BR)R}$ | > | 30 | V |
| Diode capacitance<br>$V_R$ = 1V; f = 1MHz | $C_d$ | < | 15 | pF |
| Reverse recovery time when switched from<br>$I_F$ = 10mA to $I_R$ = 10mA; $R_L$ = 100W; measured at $I_R$ = 1mA | $t_{rr}$ | < | 5 | ns |

* Temperature coefficient of forward voltage:
–0.6% K at $I_F$ = 1mA
–0.3% K at $I_F$ = 30mA




| Height (mm) | Width (mm) | Depth (mm) |
|---|---|---|
| 1.12 | 3.05 | 2.5 |

Dimensions : Millimetres

## Part Number Table

| Description | Connection | $V_{RRM}$ Max (V) | $I_F$ Max (mA) | $V_F$ Max. (V) at $I_F$ = 10mA | Device Marking | Package | Part Number |
|---|---|---|---|---|---|---|---|
| Diode, Schottky, Dual | Double Diode | 30 | 200 | 0.4 | 42 | SOT - 23 | TBAT54A |
| | | | | | L43 | | TBAT54C |