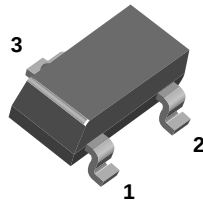
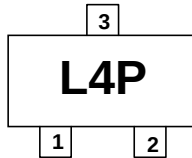


# BAT54/A/C/S



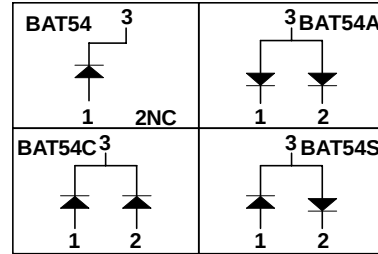
SOT-23



## MARKING

BAT54 = L4P BAT54A = L42  
BAT54C = L43 BAT54S = L44

## Connection DiagramS



## Schottky Diodes

### Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol      | Parameter                                                             | Value       | Units            |
|-------------|-----------------------------------------------------------------------|-------------|------------------|
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage                                    | 30          | V                |
| $I_{F(AV)}$ | Average Rectified Forward Current                                     | 200         | mA               |
| $I_{FSM}$   | Non-repetitive Peak Forward Surge Current<br>Pulse width = 1.0 second | 600         | mA               |
| $T_{stg}$   | Storage Temperature Range                                             | -55 to +150 | $^\circ\text{C}$ |
| $T_J$       | Operating Junction Temperature                                        | 150         | $^\circ\text{C}$ |

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

## Thermal Characteristics

| Symbol          | Parameter                               | Value | Units              |
|-----------------|-----------------------------------------|-------|--------------------|
| $P_D$           | Power Dissipation                       | 290   | mW                 |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 430   | $^\circ\text{C/W}$ |

## Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol   | Parameter             | Test Conditions                                                                                                            | Min | Max                             | Units                     |
|----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------|---------------------------|
| $V_R$    | Breakdown Voltage     | $I_R = 10 \mu\text{A}$                                                                                                     | 30  |                                 | V                         |
| $V_F$    | Forward Voltage       | $I_F = 0.1 \text{ mA}$<br>$I_F = 1 \text{ mA}$<br>$I_F = 10 \text{ mA}$<br>$I_F = 30 \text{ mA}$<br>$I_F = 100 \text{ mA}$ |     | 240<br>320<br>400<br>500<br>1.0 | mV<br>mV<br>mV<br>mV<br>V |
| $I_R$    | Reverse Current       | $V_R = 25 \text{ V}$                                                                                                       |     | 2                               | $\mu\text{A}$             |
| $C_T$    | Total Capacitance     | $V_R = 1 \text{ V}$ , $f = 1.0 \text{ MHz}$                                                                                |     | 10                              | pf                        |
| $t_{rr}$ | Reverse Recovery Time | $I_F = I_R = 10 \text{ mA}$ , $I_{RR} = 1.0 \text{ mA}$ ,<br>$R_L = 100 \Omega$                                            |     | 5.0                             | ns                        |

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| CoolFET <sup>TM</sup>             | FRFET <sup>TM</sup>              | PACMAN <sup>TM</sup>             | Stealth <sup>TM</sup>        |                   |
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| E <sup>2</sup> CMOS <sup>TM</sup> | LittleFET <sup>TM</sup>          | QS <sup>TM</sup>                 | TinyLogic <sup>TM</sup>      |                   |
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