

## Schottky Barrier Diode

#### Features

- Silicon Epitaxial Planar Diode
- Lead free product ,compliance to RoHS
- Low power loss
- · High efficiency High current capability , low VF
- RoHS compliant package

### Applications

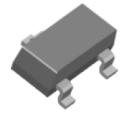
- Memory backup circuits
- Portable equipment battery applications
- Protecting LED Drivers
- AC/DC Converter Telecommunication

#### **Mechanical Data**

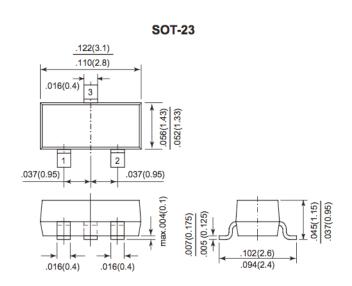
- SMD SOT23 case
- Weight : 8.8 mg
- Moisture Sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

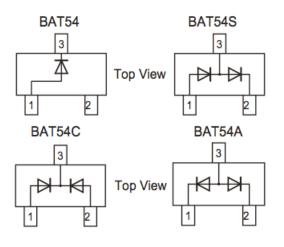
### **Packing & Order Information**

3,000/Reel

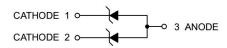








#### **Graphic symbol**





Schottky Barrier Diode

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

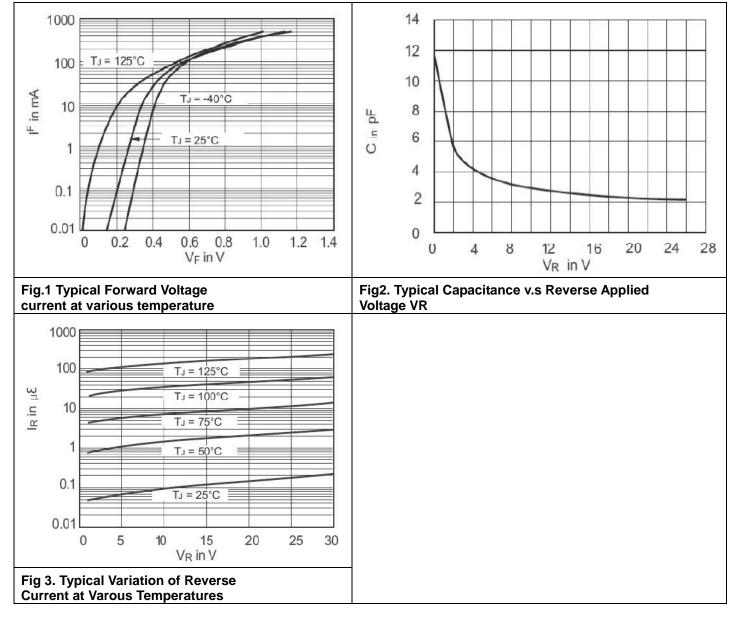
| Maximum Ratings & Thermal Characteristics (Tamb=25°C unless otherwise noted) |  |       |        |        |        |      |  |  |  |
|--|--|-------|--------|--------|--------|------|--|--|--|
| Symbol   | Parameter                                  | BAT54 | BAT54A | BAT54C | BAT54S | Unit |  |  |  |
|  | Device marking code                        | L4    | L42    | L43    | L44    |      |  |  |  |
| VRRM   | Repetitive peak reverse voltage            |       | V      |        |        |      |  |  |  |
| IF   | Forward continuous current                 |       | mA     |        |        |      |  |  |  |
| IFSM   | Repetitive peak forward current            |       | mA     |        |        |      |  |  |  |
| IFSM   | Surge forward current tp<1s,               |       | mA     |        |        |      |  |  |  |
| Ptot   | Power dissipation TA=25°C                  |       | mW     |        |        |      |  |  |  |
| RθJA   | Thermal resistance junction to ambient air |       | °C/W   |        |        |      |  |  |  |
| TJ,TSTG  | Junction temperature                       |       | °C     |        |        |      |  |  |  |
| TS   | Storage temperature range                  |       | °C     |        |        |      |  |  |  |

| Electrical Characteristics (TA=25°C unless otherwise noted) |  |     |     |      |      |  |  |  |
|---|--|-----|-----|------|------|--|--|--|
| Symbol  | Parameter  | MIN | ТҮР | MAX  | UNIT |  |  |  |
| V(BR)   | Reverse breakdown voltage IR=100uA (pulsed)            | 30  |     |      | V    |  |  |  |
| IR  | Leakage current Pulse test tp<300us, θ<2% at<br>VR=25V |     |     | 2    | uA   |  |  |  |
| VF  | Forward voltage IF=0.1 mA , tp<300us, $\theta$ <2%     |     |     | 240  |      |  |  |  |
|   | IF=1 mA , tp<300us, θ<2%                               |     |     | 320  |      |  |  |  |
|   | IF=10 mA , tp<300us, θ<2%                              |     |     | 400  | mV   |  |  |  |
|   | IF=30 mA , tp<300us, θ<2%                              |     |     | 500  |      |  |  |  |
|   | IF=100 mA , tp<300us, θ<2%                             |     |     | 1000 |      |  |  |  |
| Ctot  | Capacitance VR=1V , f=1MHz                             |     |     | 10   | pF   |  |  |  |
| Trr   | Reverse recovery time IF=10 mA , IR=10 mA to           |     |     | 5    | ns   |  |  |  |
|   | Irr=1 mA , RL=100Ω                                     |     |     | 5    |      |  |  |  |



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#### ■RATINGS AND CHARACTERISTIC CURVES





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