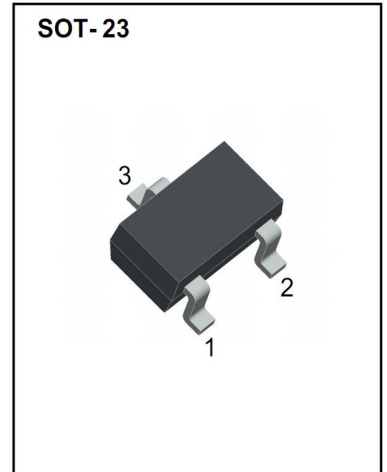




BAT54/A/C/S Schottky Barrier Diodes

FEATURES:

- High Conductance
- Fast Switching Speed
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion



| BAT54 | BAT54A | BAT54C | BAT54S |
|---------------------|---------------------|---------------------|---------------------|
| | | | |
| MARKING: KL1 | MARKING: KL2 | MARKING: KL3 | MARKING: KL4 |

Solid dot = Green molding compound device, if none, the normal device.

Maximum ratings (@Ta=25°C)

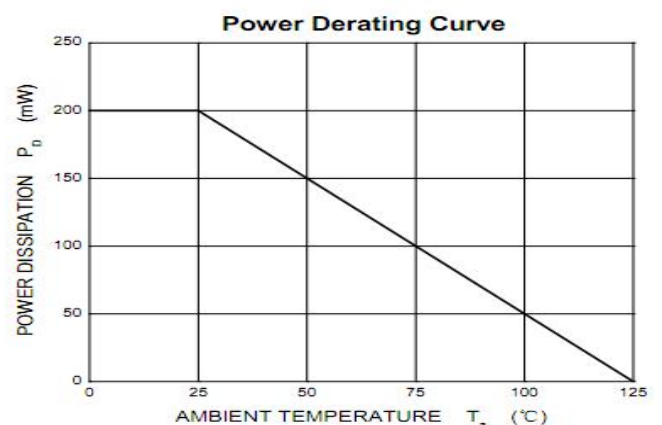
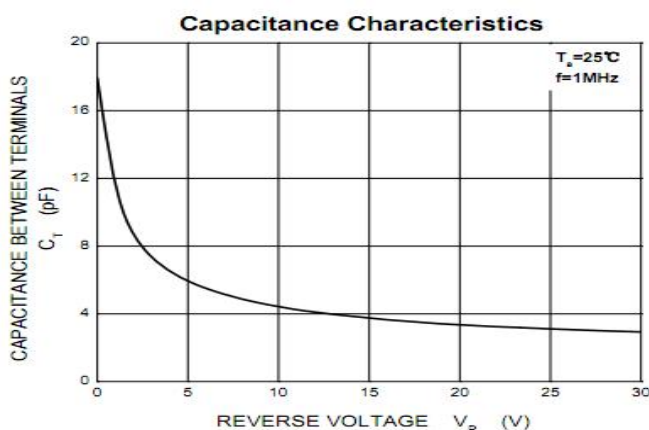
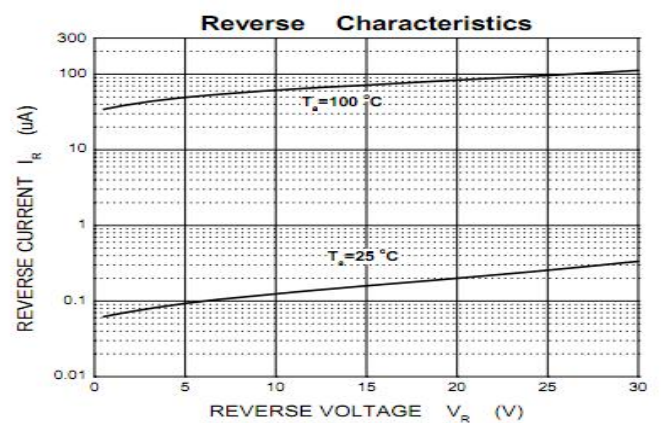
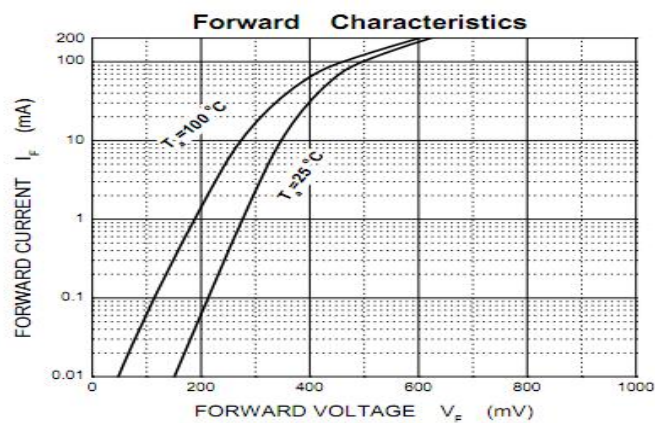
| Parameter | Symbol | Limit | Unit |
|--|--------|----------|------|
| Peak Repetitive Reverse Voltage | VRRM | 30 | V |
| Working Peak Reverse Voltage | VRWM | 30 | V |
| DC Blocking Voltage | VR | 30 | V |
| Forward Continuous Current | IFM | 200 | mA |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | IFSM | 600 | mA |
| Repetitive Peak Forward Current @ t≤1s, δ≤0.5 | IFRM | 300 | mA |
| Power Dissipation | PD | 200 | mW |
| Thermal Resistance from Junction to Ambient | RθJA | 500 | °C/W |
| Junction Temperature | TJ | 125 | °C |
| Storage Temperature Range | TSTG | -55~+150 | °C |



Electrical Characteristics (@Ta=25°C unless otherwise specified)

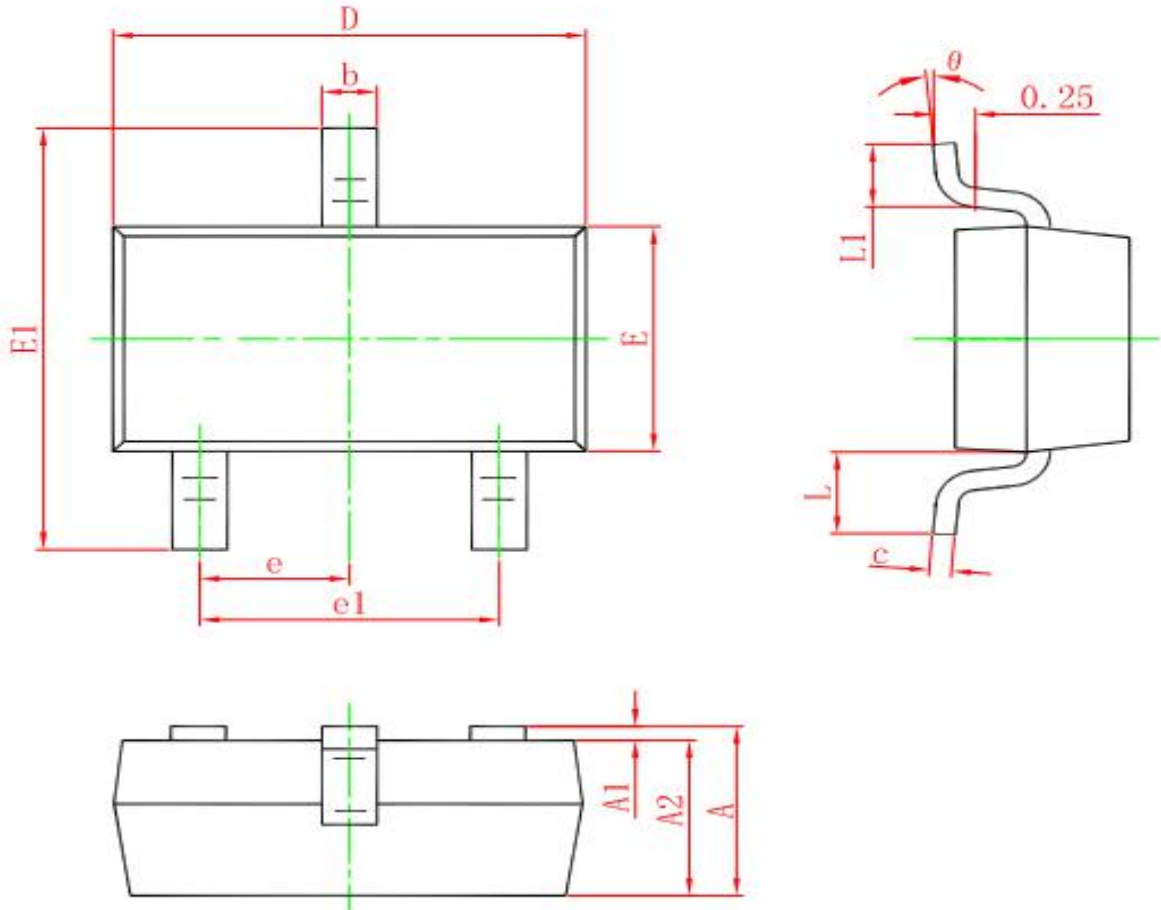
| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|-----------------------|-----------------|--|-----|-----|------|------|
| Reverse voltage | V(BR) | IR=100μA | 30 | | | V |
| Forward voltage | VF1 | IF=0.1mA | | | 0.24 | V |
| | VF2 | IF=1mA | | | 0.32 | V |
| | VF3 | IF=10mA | | | 0.4 | V |
| | VF4 | IF=30mA | | | 0.5 | V |
| | VF5 | IF=100mA | | | 1 | V |
| Reverse current | IR | VR=30V | | | 2 | uA |
| Diode Capacitance | Ctot | VR=0V,f=1MHz | | | 10 | PF |
| Reverse recovery time | t _{rr} | IF=IR=10mA, I _{rr} =0.1×IR,RL= 100 Ω | | | 5 | nS |

Typical Characteristics





SOT-23 PACKAGE OUTLINE DIMENSIONS



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950 TYP. | | 0.037 TYP. | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550 REF. | | 0.022 REF. | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |