

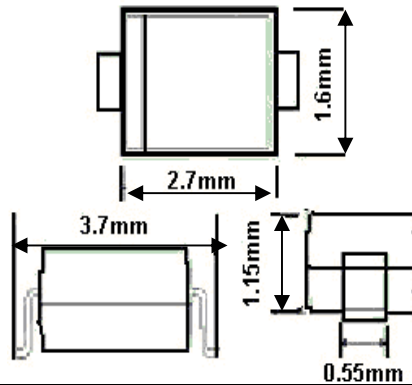
Mechanical Dimensions

BAT42W~43W

Description



SOD-123



FEATURES

- Low Forward Voltage Drop
 - Fast Switching Time
 - Surface Mount Package Ideally Suited for Automatic Insertion
- Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C**

| Parameter | Symbol | BAT42W/BAT43W | Unit |
|---|---------------------|---------------|------|
| Peak Repetitive Peak reverse voltage | V _{RRM} | 30 | V |
| Working Peak | V _{RWM} | | |
| DC Blocking Voltage | V _R | | |
| RMS Reverse Voltage | V _{R(RMS)} | 21 | V |
| Forward Continuous Current | I _{FM} | 200 | mA |
| Repetitive Peak Forward Current @t<1.0s | I _{FRM} | 500 | mA |
| Peak forward surge current @<10ms | I _{FSM} | 4.0 | A |
| Power Dissipation | P _d | 200 | mW |
| Thermal Resistance Junction to Ambient | R _{θJA} | 500 | K/W |
| Storage temperature | T _{STG} | -55~+125 | °C |

Electrical Ratings @T_A=25°C

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-------------------------------|--------------------|------|------|------|------|---|
| Reverse Breakdown Voltage | V _{(BR)R} | 30 | | | V | I _R =100μA |
| Forward voltage | All Types | | | 1.0 | V | I _F =200mA |
| | BAT42W | | | 0.4 | V | I _F =10mA |
| | BAT42W | | | 0.65 | V | I _F =50mA |
| | BAT43W | 0.26 | | 0.33 | V | I _F =2mA |
| | BAT43W | | | 0.45 | V | I _F =15mA |
| Reverse current | I _R | | | 0.5 | μA | V _R =25V |
| Capacitance between terminals | C _T | | | 10 | pF | V _R =1.0V, f=1.0MHz |
| Reverse Recovery Time | t _{rr} | | | 5 | ns | I _F =I _R =10mA I _{rr} =0.1X I _R , R _L =100Ω |

Typical Characteristics

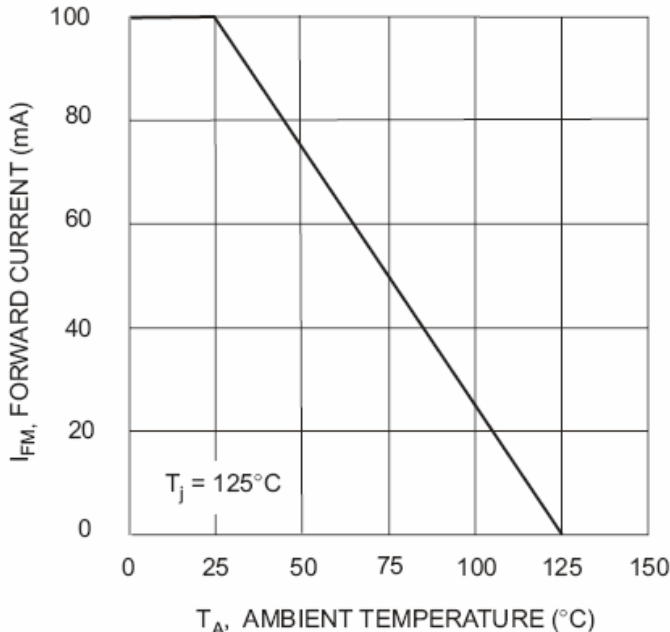


Fig. 1 Forward Current Derating Curve

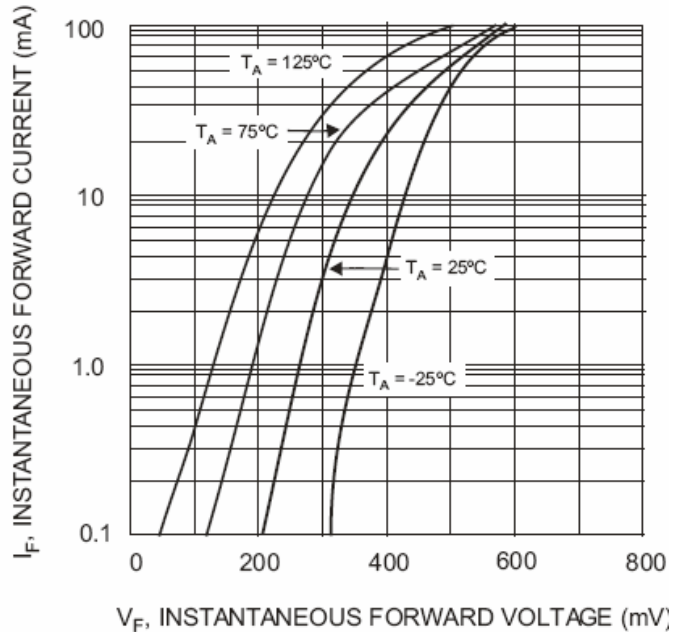


Fig. 2 Typical Forward Characteristics

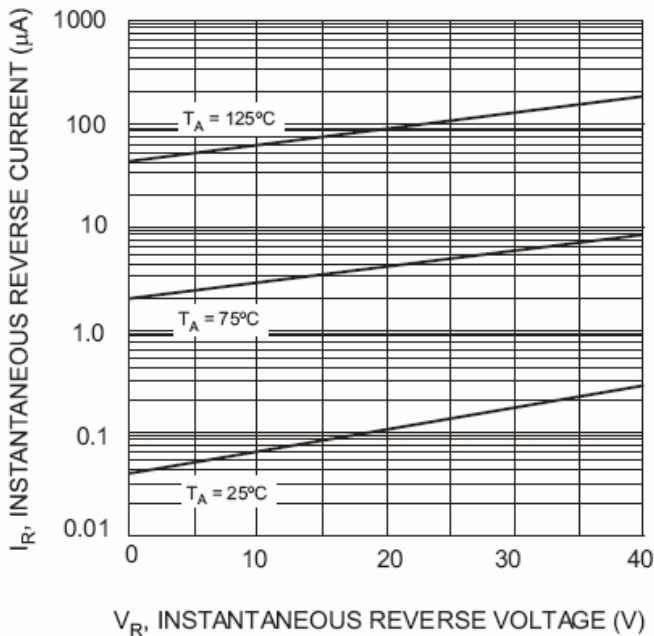


Fig. 3 Typical Reverse Characteristics

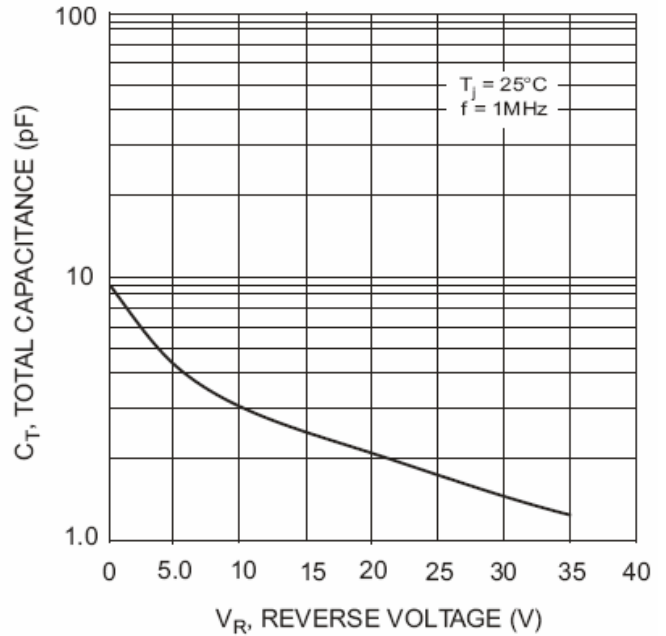


Fig. 4 Total Capacitance vs. Reverse Voltage