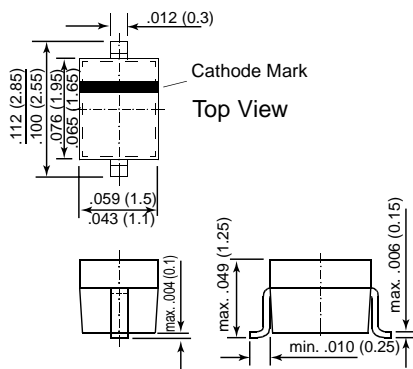


BAT54WS

SCHOTTKY DIODES

SOD-323

Dimensions in inches and (millimeters)

FEATURES

- ◆ These diodes feature very low turn-on voltage and fast switching.
- ◆ These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.

**MECHANICAL DATA**

Case: SOD-323 Plastic Package

Weight: approx. 0.004g

Marking Code: L4

MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified

| | <i>SYMBOL</i> | <i>VALUE</i> | <i>UNIT</i> |
|---|---------------|--------------------|--------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 30 | Volts |
| Forward Continuous Current at $T_{amb} = 25\text{ }^{\circ}\text{C}$ | I_F | 200 ⁽¹⁾ | mA |
| Repetitive Peak Forward Current at $T_{amb} = 25\text{ }^{\circ}\text{C}$ | I_{FRM} | 300 ⁽¹⁾ | mA |
| Surge Forward Current at $t_p < 1\text{ s}$, $T_{amb} = 25\text{ }^{\circ}\text{C}$ | I_{FSM} | 600 ⁽¹⁾ | mA |
| Power dissipation at $T_{amb} = 25\text{ }^{\circ}\text{C}$ | P_{tot} | 150 ⁽¹⁾ | mW |
| Maximum Junction Temperature | T_j | 150 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_s | - 65 to +150 | $^{\circ}\text{C}$ |

NOTES:

(1) Valid provided that electrodes are kept at ambient temperature

BAT54WS

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | <i>SYMBOL</i> | <i>MIN.</i> | <i>TYP.</i> | <i>MAX.</i> | <i>UNIT</i> |
|---|---------------|-------------|-------------|-------------------|-------------|
| Reverse Breakdown Voltage tested with 100μA Pulses | $V_{(BR)R}$ | 30 | – | – | Volts |
| Forward Voltage Pulse Test $t_p < 300\mu s$, $\delta < 2\%$ at $I_F = 0.1mA$ | V_F | – | – | 240 | mV |
| at $I_F = 1mA$ | V_F | – | – | 320 | mV |
| at $I_F = 10mA$ | V_F | – | – | 400 | mV |
| at $I_F = 30mA$ | V_F | – | – | 500 | mV |
| at $I_F = 100mA$ | V_F | – | – | 1000 | mV |
| Leakage Current Pulse Test $t_p < 300\mu s$, $\delta < 2\%$ at $V_R = 25 V$ | I_R | – | – | 2 | μA |
| Capacitance at $V_F = 1 V$, $f = 1 MHz$ | C_{tot} | – | – | 10 | pF |
| Reverse Recovery Time from $I_F = 10mA$ through $I_R = 10 mA$ to $I_R = 1mA$, $R_L = 100 \Omega$ | t_{rr} | – | – | 5 | ns |
| Thermal Resistance Junction to Ambient Air | R_{thJA} | – | – | 650 ¹⁾ | °C/W |

NOTES:

(1) Valid provided that electrodes are kept at ambient temperature