



THE DATASHEET OF BAT54WS-TP



Features

- High Reliability
- Low Forward Voltage and Low Reverse Current
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 500°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| BAT54WS | L9 | 30V | 21V | 30V |

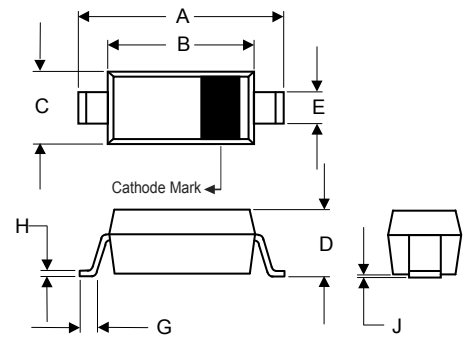
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--|---|
| Continuous Forward Current | $I_{F(AV)}$ | 200mA | |
| Repetitive Peak Forward Current | I_{FRM} | 300mA | $t_p \leq 1s$; Duty Cycle $\leq 50\%$ |
| Non-Repetitive Peak Forward Current | I_{FSM} | 600mA | $t = 8.3ms$ |
| Power Dissipation Derate above 25°C | P_d | 200mW 1.8mW/°C | $T_A = 25^\circ C$ |
| Maximum Forward Voltage at | V_F | 240mV 320mV 400mV 500mV 1000mV | $I_F = 0.1mA$ $I_F = 1mA$ $I_F = 10mA$ $I_F = 30mA$ $I_F = 100mA$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 2.0µA | $V_R = 25V$ |
| Maximum Reverse Breakdown Voltage | V_{BR} | >30V | $I_R = 100µA$ |
| Reverse Recovery Time | t_{rr} | 5ns(Max) | $I_F = 10mA$ $I_R = 10mA \sim 1.0mA$, $R_L = 100OHM$ |
| Maximum Junction Capacitance | C_J | 10pF | Measured at 1.0MHz, $V_R = 1.0V$ |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

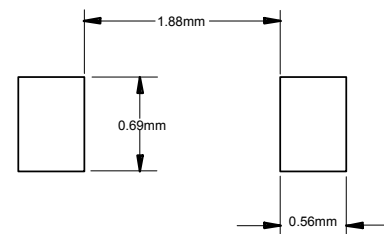
200mW, 30 Volt Schottky Barrier Diode

SOD-323



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.090 | 0.107 | 2.30 | 2.70 | |
| B | 0.063 | 0.071 | 1.60 | 1.80 | |
| C | 0.045 | 0.053 | 1.15 | 1.35 | |
| D | 0.031 | 0.045 | 0.80 | 1.15 | |
| E | 0.010 | 0.016 | 0.25 | 0.40 | |
| G | 0.004 | 0.018 | 0.10 | 0.45 | |
| H | 0.004 | 0.010 | 0.10 | 0.25 | |
| J | ----- | 0.006 | ----- | 0.15 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

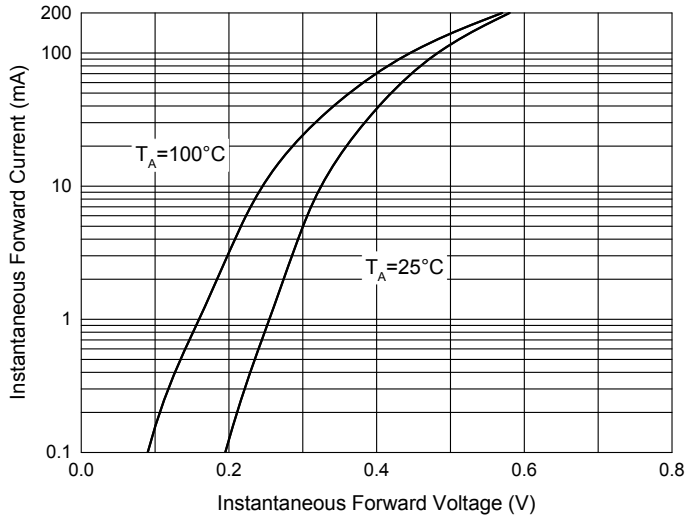


Fig. 2 - Typical Reverse Leakage Characteristics

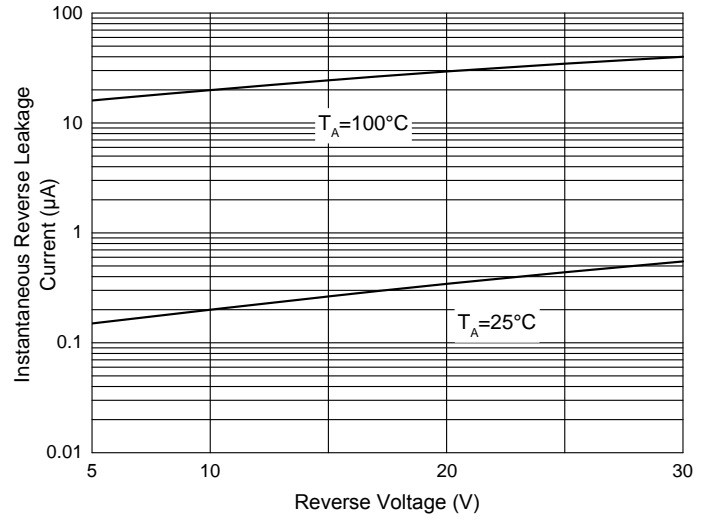
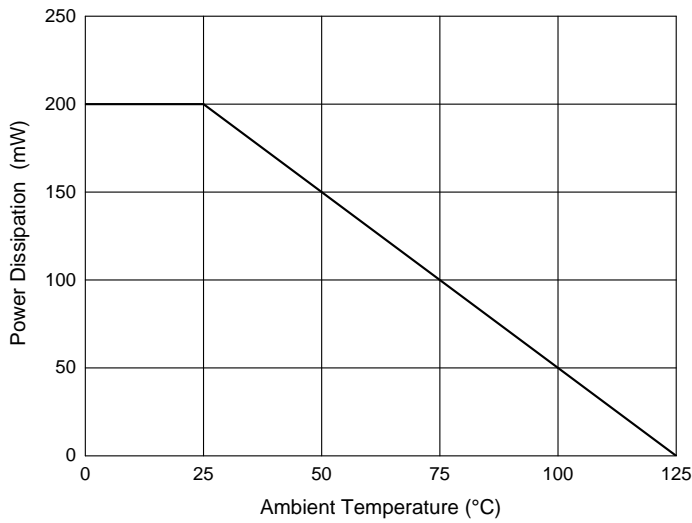


Fig. 3 - Power Derating Curve



Ordering Information

| Device | Packing |
|-----------------|------------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |
| Part Number-13P | Tape&Reel: 10Kpcs/Reel |

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