

## **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

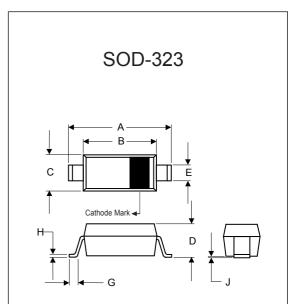
| MCC<br>Part Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS Voltage | Maximum DC<br>Blocking<br>Voltage |
|--------------------|-------------------|-------------------------------------------------|------------------------|-----------------------------------|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

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Continuous<br>Forward Current                                    | I <sub>F(AV)</sub> | 200mA                                      |                                                                                           |
|------------------------------------------------------------------|--------------------|--------------------------------------------|-------------------------------------------------------------------------------------------|
| Repetitive Peak<br>Forward Current                               | I <sub>FRM</sub>   | 300mA                                      | tp ≤ 1s; Duty Cycle ≤ 50%                                                                 |
| Non-Repetitive Peak<br>Forward Current                           | I <sub>FSM</sub>   | 600mA                                      | t=8.3ms                                                                                   |
| Power Dissipation<br>Derate above 25°C                           | P <sub>d</sub>     | 200mW<br>1.8mW/°C                          | T <sub>A</sub> =25°C                                                                      |
| Maximum Forward<br>Voltage at                                    | V <sub>F</sub>     | 240mV<br>320mV<br>400mV<br>500mV<br>1000mV | $I_F=0.1\text{mA}$ $I_F=1\text{mA}$ $I_F=30\text{mA}$ $I_F=30\text{mA}$ $I_F100\text{mA}$ |
| Maximum DC<br>Reverse Current At<br>Rated DC Blocking<br>Voltage | I <sub>R</sub>     | 2.0µA                                      | V <sub>R</sub> =25V                                                                       |
| Maximum Reverse<br>Breakdown Voltage                             | $V_{BR}$           | >30V                                       | I <sub>R</sub> =100μA                                                                     |
| Reverse<br>Recovery<br>Time                                      | t <sub>rr</sub>    | 5ns(Max)                                   | I <sub>F</sub> =10mA<br>I <sub>R</sub> =10mA~1.0mA,<br>R <sub>L</sub> =100OHM             |
| Maximum<br>Junction<br>Capacitance                               | CJ                 | 10pF                                       | Measured at<br>1.0MHz,<br>VR=1.0V                                                         |

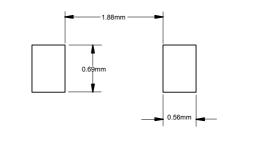
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

# 200mW, 30 Volt Schottky Barrier Diode



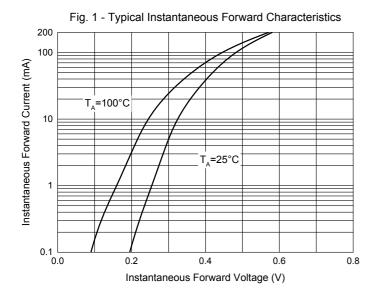
| DIMENSIONS |        |       |      |      |      |  |  |
|------------|--------|-------|------|------|------|--|--|
| DIM        | INCHES |       | MM   |      | NOTE |  |  |
| DIIVI      | MIN    | MAX   | MIN  | MAX  | NOTE |  |  |
| Α          | 0.090  | 0.107 | 2.30 | 2.70 |      |  |  |
| В          | 0.063  | 0.071 | 1.60 | 1.80 |      |  |  |
| С          | 0.045  | 0.053 | 1.15 | 1.35 |      |  |  |
| D          | 0.031  | 0.045 | 0.80 | 1.15 |      |  |  |
| Е          | 0.010  | 0.016 | 0.25 | 0.40 |      |  |  |
| G          | 0.004  | 0.018 | 0.10 | 0.45 |      |  |  |
| Н          | 0.004  | 0.010 | 0.10 | 0.25 |      |  |  |
| J          |        | 0.006 |      | 0.15 |      |  |  |

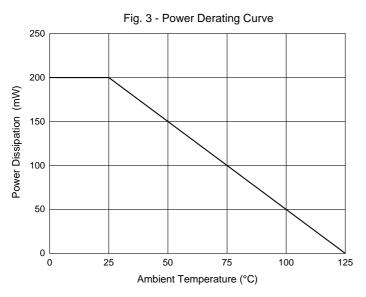
#### Suggested Solder Pad Layout

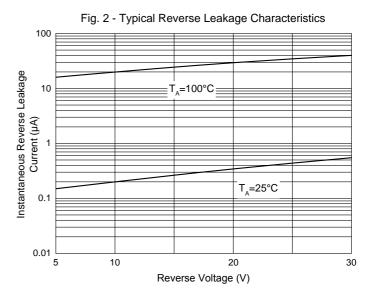




# **Curve Characteristics**









# **Ordering Information**

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

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