

Pb

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## BAT54 THRU BAT54S

## **Features**

- Low Forward Voltage
- Surface Mount device
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

| MCC Catalog | Device Marking |     | Type    | Pin                         |
|-------------|----------------|-----|---------|-----------------------------|
| Number      | 1              | 2   | . , p = | Configuration<br>See page 3 |
| BAT54       | KL1            | L4  | Single  | Figure 1                    |
| BAT54A      | KL2            | L42 | Dual    | Figure 2                    |
| BAT54C      | KL3            | L43 | Dual    | Figure 3                    |
| BAT54S      | KL4            | L44 | Dual    | Figure 4                    |

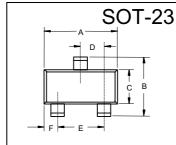
## **Maximum Ratings**

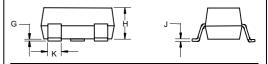
| Continuos Reverse Voltage                       |                  | 30V            |
|---|------------------|----------------|
| Forward ContinuousCurrent                       | lF               | 200mA          |
| Non-Repetitive Peak Forward Current t<1s        | I <sub>FSM</sub> | 0.6A           |
| Total Power Dissipation @ T <sub>A</sub> = 25°C | $P_{D}$          | 200mW          |
| Storage Temperature Range                       | $T_{stg}$        | -55°C to 150°C |
| Operating Junction Temperature Range            | Tj               | -55°C to 125°C |
| Soldering temperature during 10s                |                  | 260°C          |

## Electrical Characteristics @ 25 °C Unless Otherwise Specified

| Characteristics         | Symbol          | Max.    | Notes                        |
|-------------------------|-----------------|---------|------------------------------|
| Forward Voltage at      |                 |         |                              |
| $I_{F} = 0.1 mA$        |                 | 240mV   |                              |
| $I_F = 1mA$             | $V_{F}$         | 320mV   |                              |
| $I_F = 10mA$            |                 | 400mV   |                              |
| $I_F = 30mA$            |                 | 500mV   |                              |
| $I_{F} = 100 \text{mA}$ |                 | 1000mV  |                              |
| Reverse Current         | $I_R$           | 2.0 uA  | $V_{R} = 25V$                |
|                         |                 |         |                              |
| Capacitance             | C,              | 10pF    | Measured at                  |
| Оарасканос              | Oj              | τορι    | 1.0MHz, V <sub>R</sub> =1.0V |
| Reverse Recovery        | t <sub>rr</sub> | 5nS     | $I_F = I_R = 10 \text{mA};$  |
| Time                    |                 |         | $I_{(REC)} = 1mA$            |
| Thermal Resistance,     | $R_{\theta JA}$ | 500°C/W |                              |
| Junction to Ambient     |                 |         |                              |

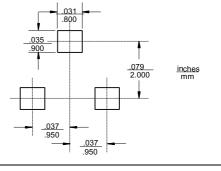
# 200mWatt, 30Volt Schottky Barrier Diode





| DIMENSIONS |        |       |      |      |      |
|------------|--------|-------|------|------|------|
|            | INCHES |       | ММ   |      |      |
| DIM        | MIN    | MAX   | MIN  | MAX  | NOTE |
| Α          | .110   | .120  | 2.80 | 3.04 |      |
| В          | .083   | .104  | 2.10 | 2.64 |      |
| O          | .047   | .055  | 1.20 | 1.40 |      |
| О          | .035   | .041  | .89  | 1.03 |      |
| Е          | .070   | .081  | 1.78 | 2.05 |      |
| F          | .018   | .024  | .45  | .60  |      |
| Ð          | .0005  | .0039 | .013 | .100 |      |
| Н          | .035   | .044  | .89  | 1.12 |      |
| J          | .003   | .007  | .085 | .180 |      |
| K          | .015   | .020  | .37  | .51  |      |
|            |        |       |      |      |      |

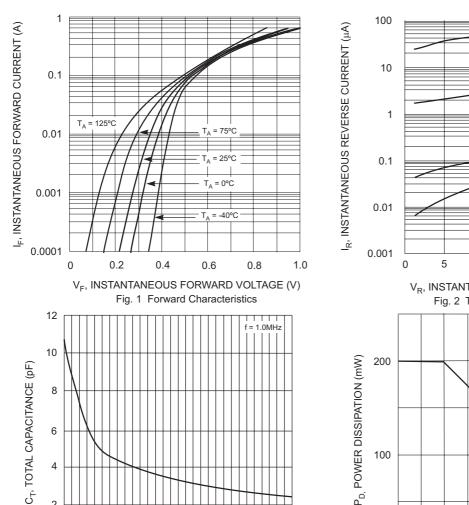
## Suggested Solder Pad Layout



## BAT54 thru BAT54S



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V<sub>R</sub>, REVERSE VOLTAGE (V) Fig. 3 Typical Capacitance vs. Reverse Voltage

15

20

25

10

4

2

0

0

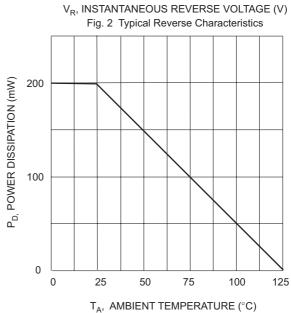


Fig. 4 Power Derating Curve

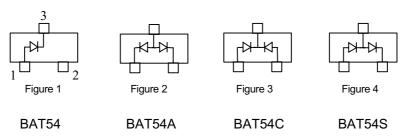
10

15

20

30

Pin Configuration - Top View





#### **Micro Commercial Components**

## Ordering Information:

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

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