



Micro Commercial Components



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BAT54T THRU BAT54ST

Features

- Ultra-Small Surface Mount Package
- Low Forward Voltage Drop
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

| MCC Part Number | Device Marking | Type | Pin Configuration |
|-----------------|----------------|--------|-------------------|
| BAT54T | L1 | Single | Figure 1 |
| BAT54AT | L2 | Dual | Figure 2 |
| BAT54CT | L3 | Dual | Figure 3 |
| BAT54ST | L4 | Dual | Figure 4 |

Maximum Ratings

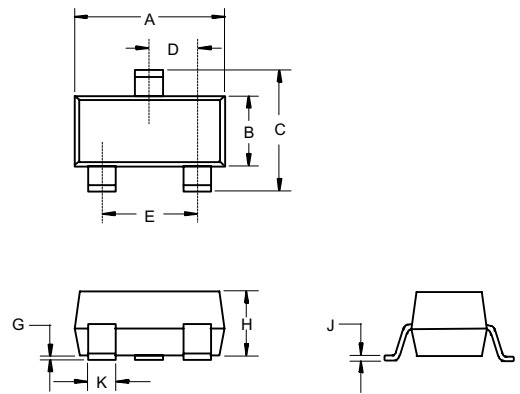
| | | |
|--|-----------------|--------------------------------|
| DC Blocking Voltage | V_R | 30V |
| Average Rectified Output Current | I_O | 200mA |
| Repetitive Peak Forward Current | I_{FRM} | 300mA |
| Non-Repetitive Peak Forward Current $t < 1s$ | I_{FSM} | 600mA |
| Total Power Dissipation @ $T_A = 25^\circ C$ | P_D | 150mW |
| Storage Temperature Range | T_{stg} | $-65^\circ C$ to $125^\circ C$ |
| Junction Temperature | T_j | $-65^\circ C$ to $125^\circ C$ |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 667°C/W |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Ratings | Symbol | Max. | Notes |
|---------------------------|------------|--|---|
| Forward Voltage | V_F | 240mV 320mV 400mV 500mV 1000mV | $I_F = 0.1mA$ $I_F = 1mA$ $I_F = 10mA$ $I_F = 30mA$ $I_F = 100mA$ |
| Reverse Current | I_R | 2 μA | $V_R = 25V$ |
| Reverse Breakdown Voltage | $V_{(BR)}$ | >30V | $I_R = 100\mu A$ |
| Total Capacitance | C_T | 10pF | Measured at 1.0MHz, $V_R = 1.0V$ |
| Reverse Recovery Time | t_{rr} | 5nS | $I_F = 10mA$; $I_R = 10mA \sim 1.0mA$, $R_L = 100 \Omega$ |

150mWatt, 30Volt
Schottky Barrier Diode

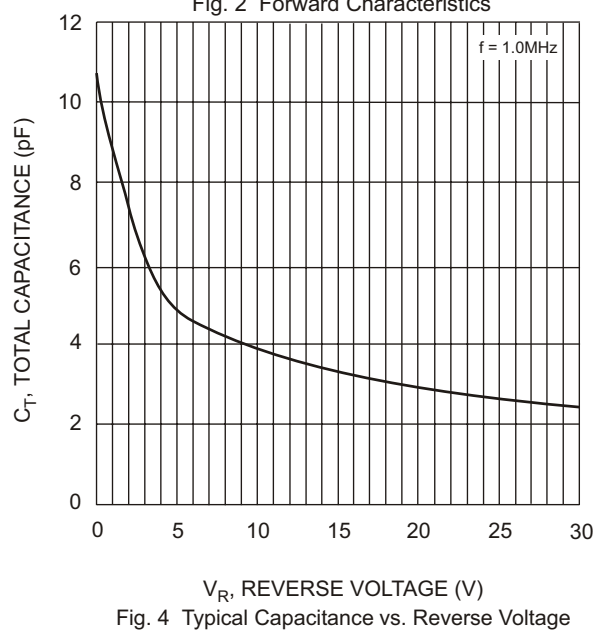
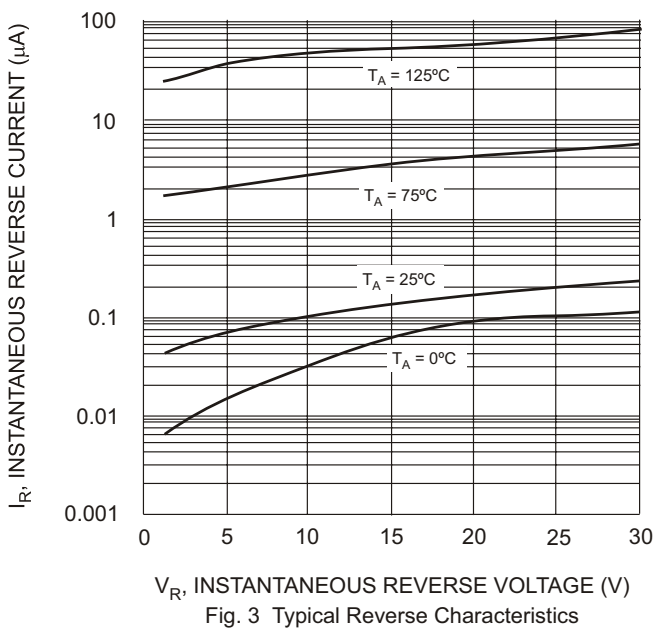
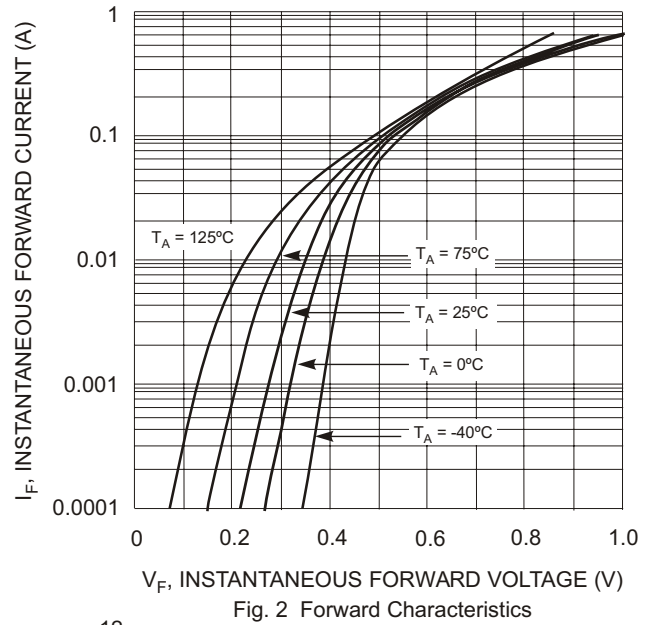
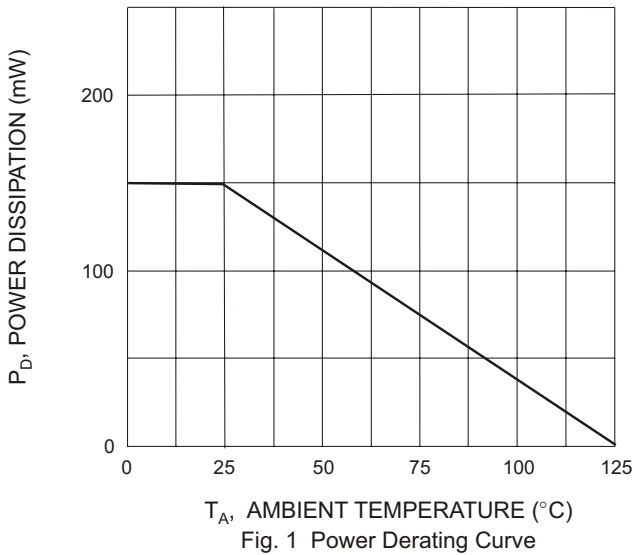
SOT-523



DIMENSIONS

| DIM | INCHES | | MM | | NOTE |
|-----|--------------|------|--------------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .059 | .067 | 1.50 | 1.70 | |
| B | .030 | .033 | 0.75 | 0.85 | |
| C | .057 | .069 | 1.45 | 1.75 | |
| D | .020 Nominal | | 0.50 Nominal | | |
| E | .035 | .043 | 0.90 | 1.10 | |
| G | .000 | .004 | .000 | .100 | |
| H | .028 | .031 | .70 | 0.80 | |
| J | .004 | .008 | .100 | .200 | |
| K | .006 | .014 | .15 | .35 | |

BAT54T thru BAT54ST



Pin Configuration - Top View

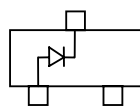


Figure 1

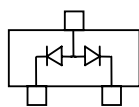


Figure 2

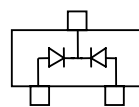


Figure 3

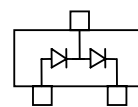


Figure 4



TM

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Ordering Information :

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

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