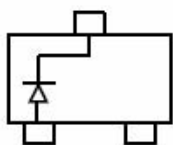


## SOT-23 Plastic-Encapsulate Diodes

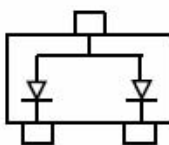
### BAT54/A/C/S SCHOTTKY DIODES

#### FEATURES

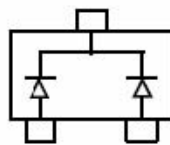
- ◆ Extremely Fast Switching Speed



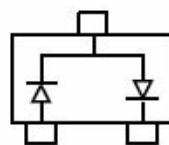
BAT54 MARKING:KL1



BAT54A MARKING:KL2



BAT54C MARKING:KL3



BAT54S MARKING:KL4

#### Maximum Ratings @T<sub>A</sub>=25°C

| Parameter                                                                                   | Symbol                       | Limits  | Unit |
|---------------------------------------------------------------------------------------------|------------------------------|---------|------|
| Peak Repetitive Peak reverse voltage<br>Working Peak Reverse Voltage DC<br>Blocking Voltage | $V_{RRM}$ $V_{RWM}$<br>$V_R$ | 30      | V    |
| Forward Continuous Current                                                                  | $I_{FM}$                     | 200     | mA   |
| Power Dissipation                                                                           | $P_D$                        | 200     | mW   |
| Storage temperature                                                                         | $T_{STG}$                    | -55-150 | °C   |

#### Electrical Characteristics @T<sub>A</sub>=25°C

| Parameter                 | Symbol      | Min. | Typ. | Max. | Unit    | Conditions                                               |
|---------------------------|-------------|------|------|------|---------|----------------------------------------------------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 30   |      |      | V       | $I_R=100\mu A$                                           |
| Forward voltage           | $V_{F1}$    |      |      | 0.24 | V       | $I_F=0.1mA$                                              |
|                           | $V_{F2}$    |      |      | 0.32 | V       | $I_F=1mA$                                                |
|                           | $V_{F3}$    |      |      | 0.40 | V       | $I_F=10mA$                                               |
|                           | $V_{F4}$    |      |      | 0.50 | V       | $I_F=30mA$                                               |
|                           | $V_{F5}$    |      |      | 1    | V       | $I_F=100mA$                                              |
| Reverse current           | $I_R$       |      |      | 2    | $\mu A$ | $V_R=25V$                                                |
| Diode Capacitance         | $C_D$       |      |      | 10   | pF      | $V_R=1V, f=1MHz$                                         |
| Reverse Recovery Time     | $t_{rr}$    |      |      | 5    | nS      | $I_F=I_R=10mA$<br>$I_{rr}=0.1 \times I_R, R_L=100\Omega$ |

## Typical Characteristics

## BAT54/A/C/S

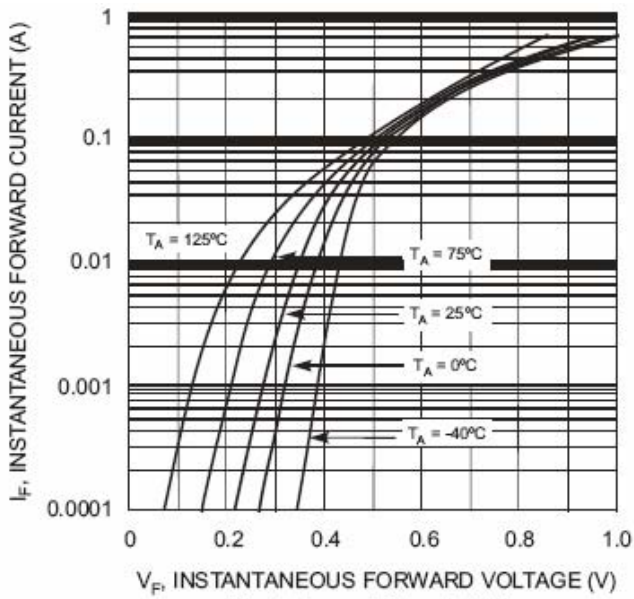


Fig. 1 Forward Characteristics

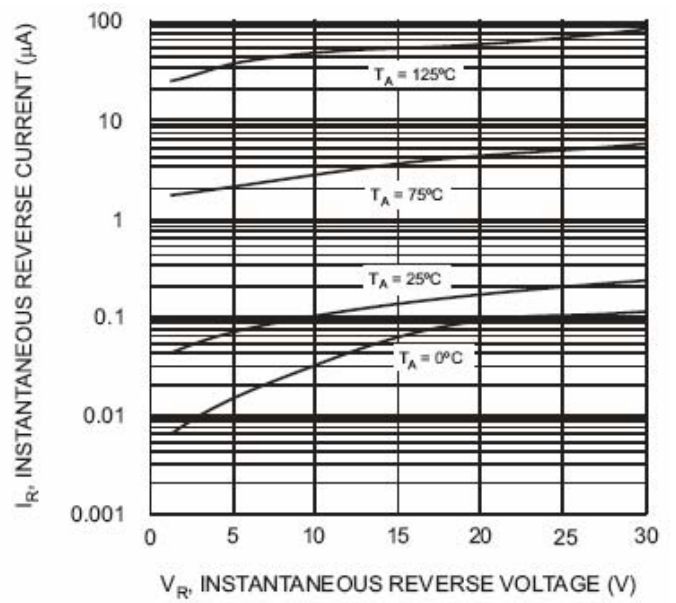


Fig. 2 Typical Reverse Characteristics

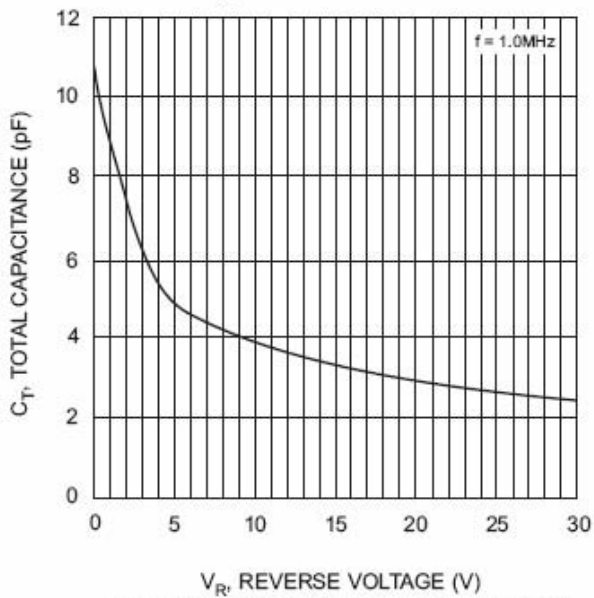


Fig. 3 Typical Capacitance vs. Reverse Voltage

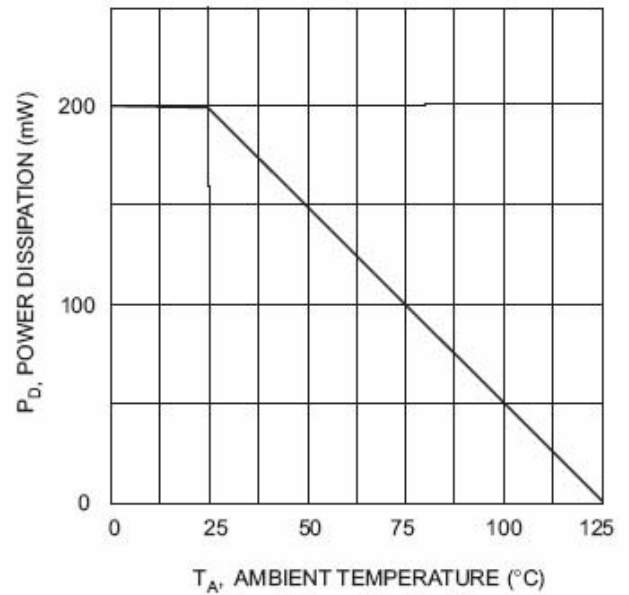


Fig. 4 Power Derating Curve