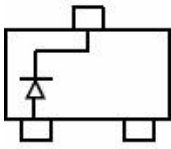
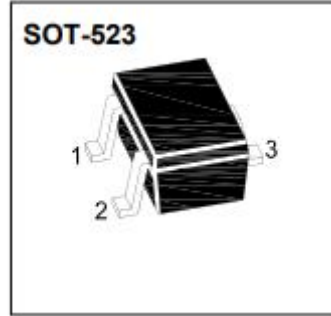




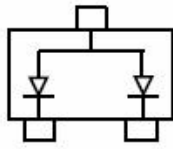
## SCHOTTKY DIODES

### FEATURES

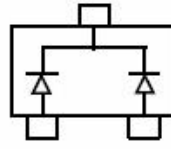
Extremely Fast Switching Speed



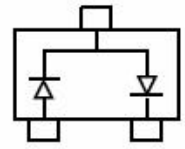
BAT54T MARKING: KL1



BAT54AT MARKING: KL2



BAT54CT MARKING: KL3



BAT54ST MARKING: KL4

### Maximum Ratings @ $T_A=25^\circ\text{C}$

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

### Electrical Characteristics @ $T_A=25^\circ\text{C}$

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



Typical Characteristics

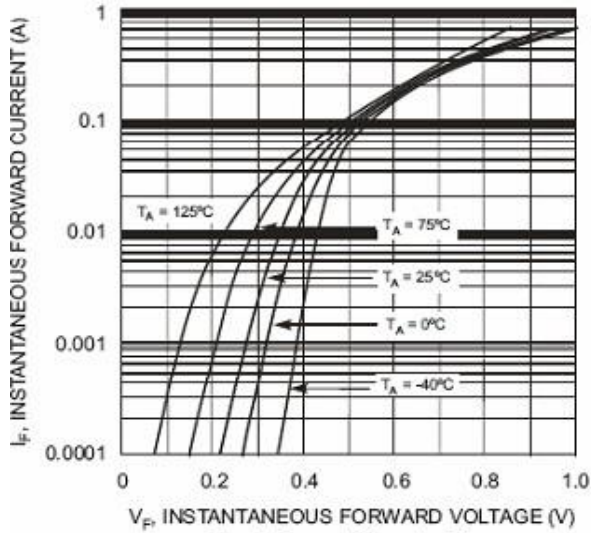


Fig. 1 Forward Characteristics

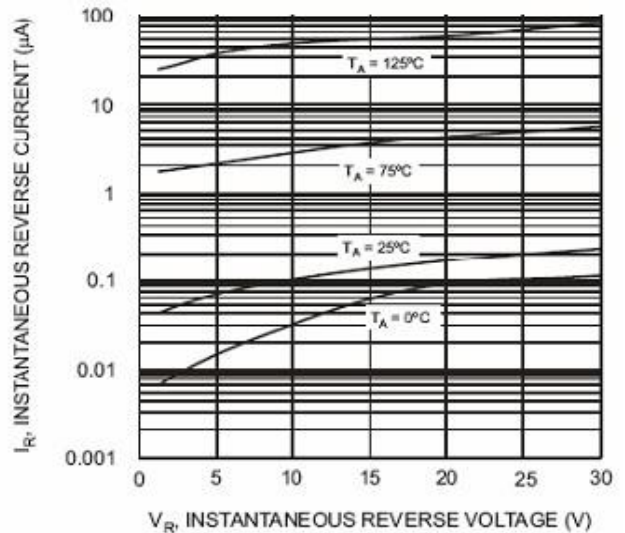


Fig. 2 Typical Reverse Characteristics

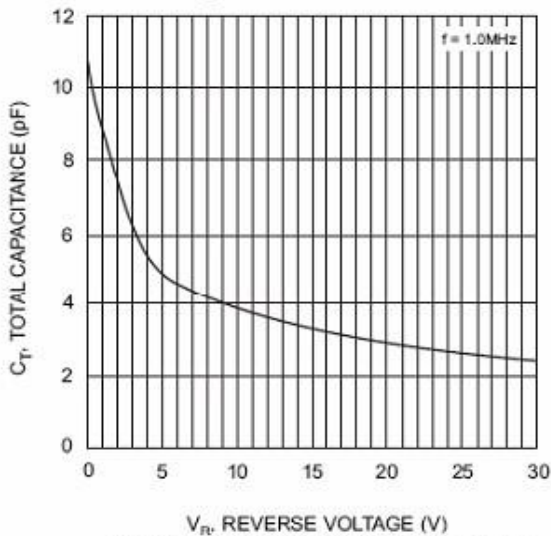


Fig. 3 Typical Capacitance vs. Reverse Voltage

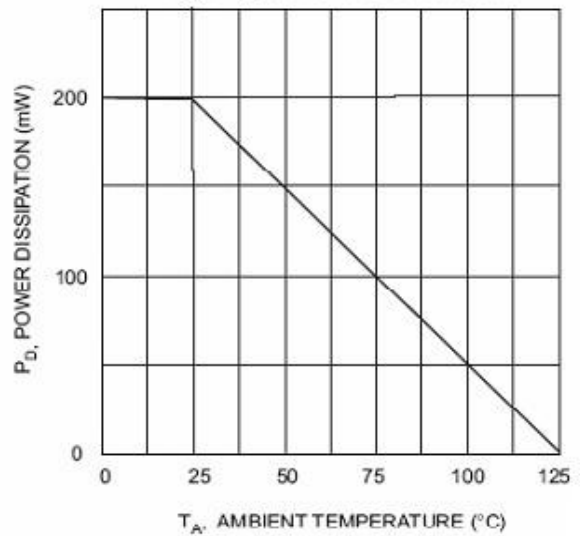


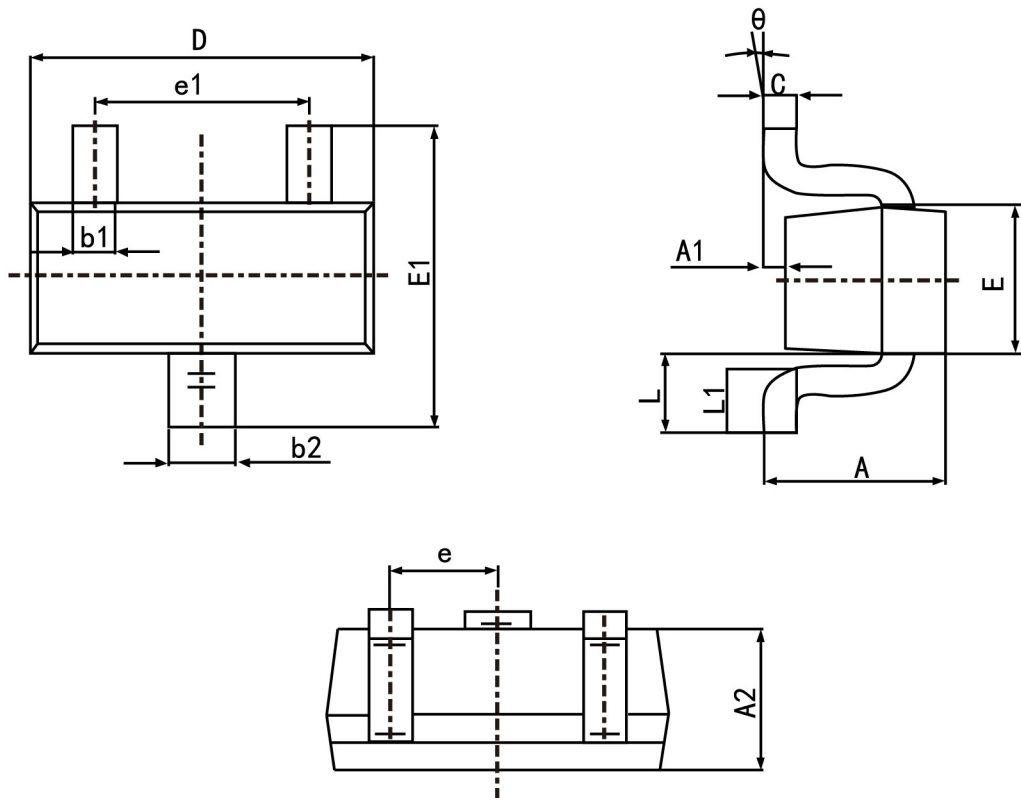
Fig. 4 Power Derating Curve



## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-523



| Symbol | Dimension in Millimeters |       |
|--------|--------------------------|-------|
|        | Min                      | Max   |
| A      | 0.700                    | 0.900 |
| A1     | 0.000                    | 0.100 |
| A2     | 0.700                    | 0.800 |
| b1     | 0.150                    | 0.250 |
| b2     | 0.250                    | 0.350 |
| c      | 0.100                    | 0.200 |
| D      | 1.500                    | 1.700 |
| E      | 0.700                    | 0.900 |
| E1     | 1.450                    | 1.750 |
| e      | 0.500                    | TYP.  |
| e1     | 0.900                    | 1.100 |
| L      | 0.400 REF.               |       |
| L1     | 0.260                    | 0.460 |
| θ      | 0°                       | 8°    |