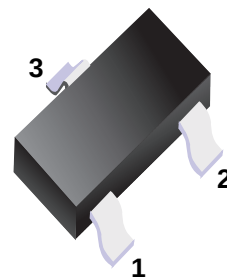


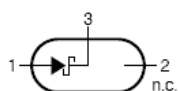
## ■ Schottky Diodes

### ■ Features

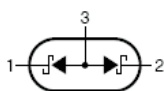
- Extremely Fast Switching Speed
- Low forward voltage



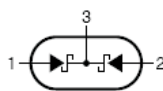
■ Simplified outline(SOT-323)



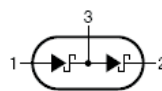
**BAT54W**



**BAT54AW**



**BAT54CW**



**BAT54SW**

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                                                             | Symbol          | Rating     | Unit                      |
|-----------------------------------------------------------------------|-----------------|------------|---------------------------|
| Peak Repetitive Reverse Voltage                                       | $V_{RRM}$       | 30         | V                         |
| Working Peak Reverse Voltage                                          | $V_{RWM}$       |            |                           |
| DC Blocking Voltage                                                   | $V_R$           |            |                           |
| Forward Continuous Current                                            | $I_{FM}$        | 200        | mA                        |
| Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$          | $I_{FSM}$       | 600        |                           |
| Repetitive Peak Forward Current @ $t \leq 1\text{s}, \delta \leq 0.5$ | $I_{FRM}$       | 300        |                           |
| Power Dissipation                                                     | $P_D$           | 200        | mW                        |
| Thermal Resistance Junction to Ambient                                | $R_{\theta JA}$ | 500        | $^\circ\text{C}/\text{W}$ |
| Junction Temperature                                                  | $T_J$           | 125        | $^\circ\text{C}$          |
| Storage Temperature range                                             | $T_{stg}$       | -55 to 150 |                           |

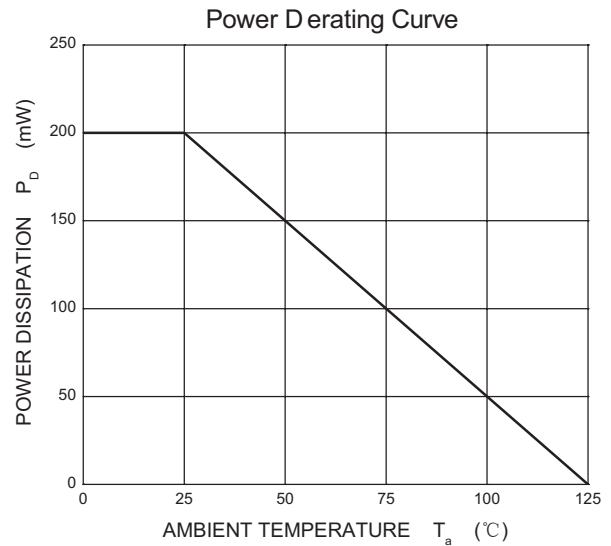
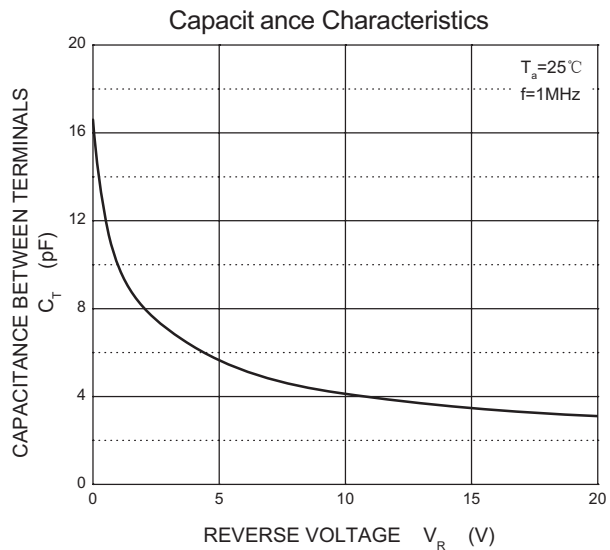
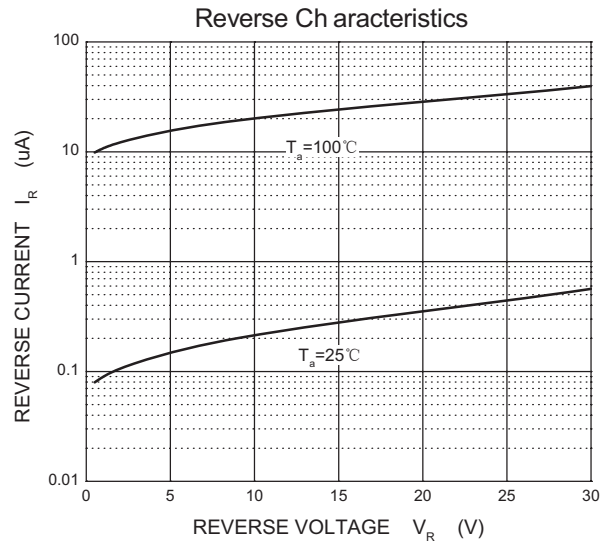
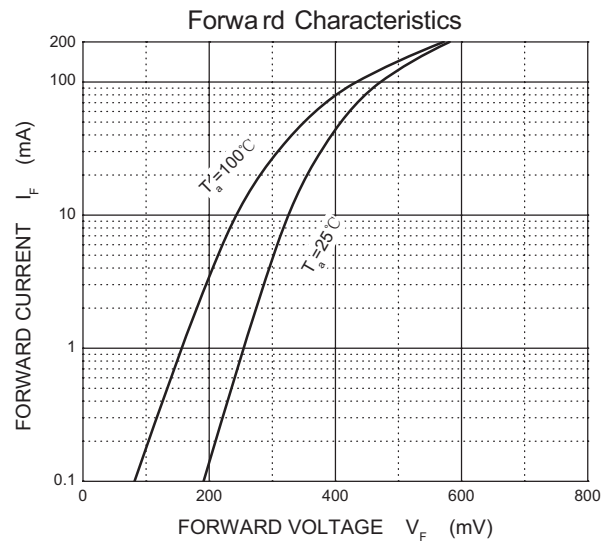
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter             | Symbol     | Test Conditions                                                        | Min | Typ | Max  | Unit          |
|-----------------------|------------|------------------------------------------------------------------------|-----|-----|------|---------------|
| Reverse Voltage       | $V_{(BR)}$ | $I_R = 100 \mu\text{A}$                                                | 30  |     |      | V             |
| Forward Voltage       | $V_{F1}$   | $I_F = 0.1 \text{ mA}$                                                 |     |     | 0.24 |               |
|                       | $V_{F2}$   | $I_F = 1 \text{ mA}$                                                   |     |     | 0.32 |               |
|                       | $V_{F3}$   | $I_F = 10 \text{ mA}$                                                  |     |     | 0.40 |               |
|                       | $V_{F4}$   | $I_F = 30 \text{ mA}$                                                  |     |     | 0.50 |               |
|                       | $V_{F5}$   | $I_F = 100 \text{ mA}$                                                 |     |     | 1    |               |
| Leakage Current       | $I_R$      | $V_R = 25 \text{ V}$                                                   |     |     | 2    | $\mu\text{A}$ |
| Diode Capacitance     | $C_D$      | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$                                 |     |     | 10   | pF            |
| Reverse Recovery Time | $t_{rr}$   | $I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$ |     |     | 5    | ns            |

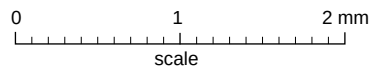
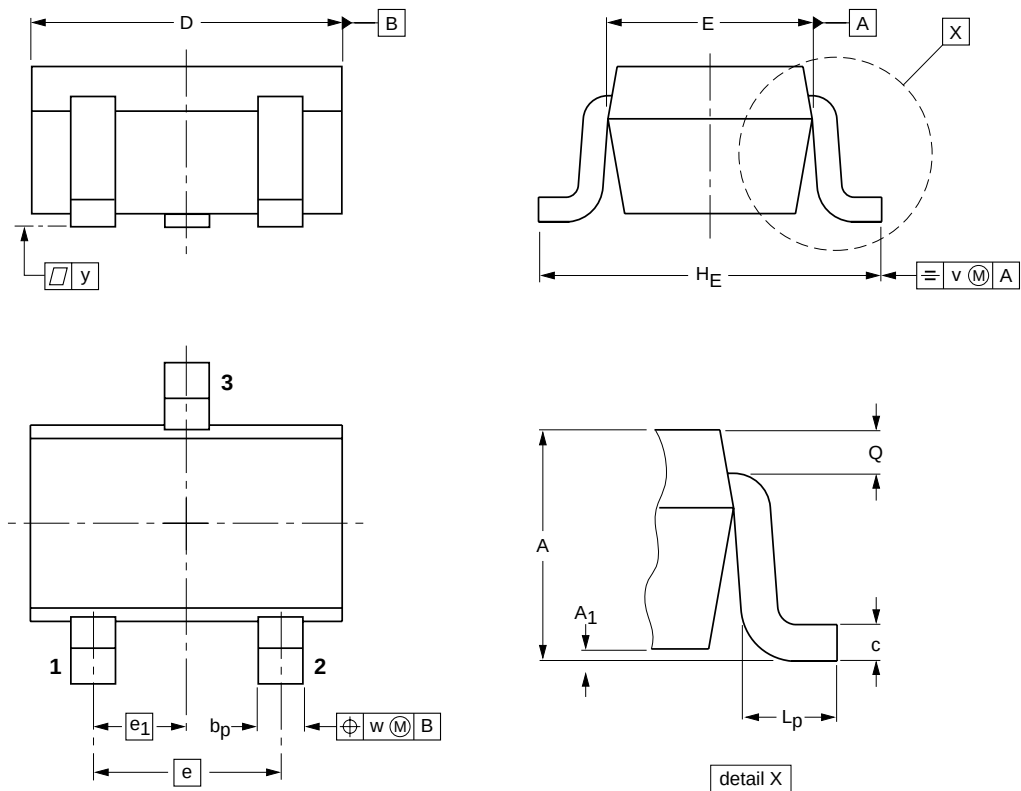
### ■ Marking

| Type    | BAT54W    | BAT54AW    | BAT54CW    | BAT54SW    |
|---------|-----------|------------|------------|------------|
| Marking | KL5 or L4 | KL6 or L42 | KL7 or L43 | KL8 or L44 |

■ Typical Characteristics



■ SOT-323



DIMENSIONS (mm are the original dimensions)

| UNIT | A          | A <sub>1</sub><br>max | b <sub>p</sub> | c            | D          | E            | e   | e <sub>1</sub> | H <sub>E</sub> | L <sub>p</sub> | Q            | v   | w   |
|------|------------|-----------------------|----------------|--------------|------------|--------------|-----|----------------|----------------|----------------|--------------|-----|-----|
| mm   | 1.1<br>0.8 | 0.1                   | 0.4<br>0.3     | 0.25<br>0.10 | 2.2<br>1.8 | 1.35<br>1.15 | 1.3 | 0.65           | 2.2<br>2.0     | 0.45<br>0.15   | 0.23<br>0.13 | 0.2 | 0.2 |