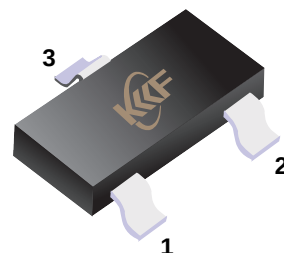


## 1SS184

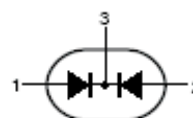
### ■ Switching Diode

#### ■ Features

- Small Package
- Low forward voltage :  $V_{F(3)} = 0.9 \text{ V(Typ.)}$
- Fast Reverse Recovery Time :  $t_{rr} = 1.6 \text{ ns(Typ.)}$
- Small Total Capacitance :  $C_T = 0.9 \text{ pF(Typ.)}$



■ Simplified outline(SOT-23)



#### ■ Marking

|         |    |
|---------|----|
| Marking | B3 |
|---------|----|

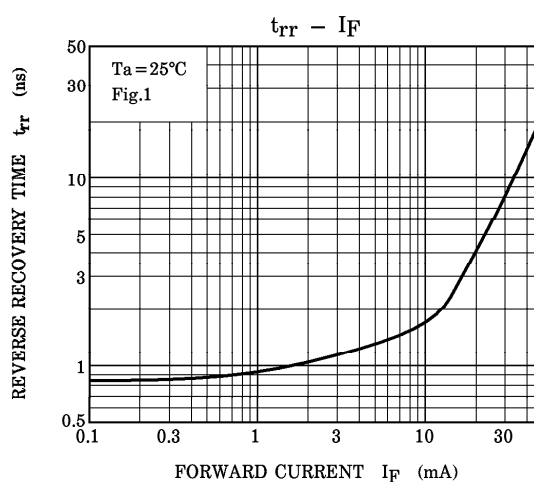
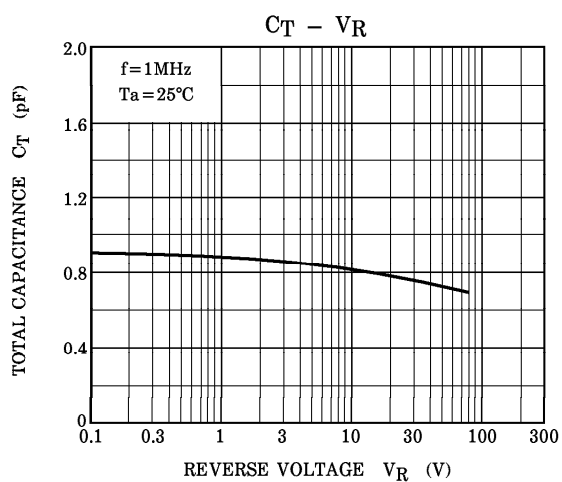
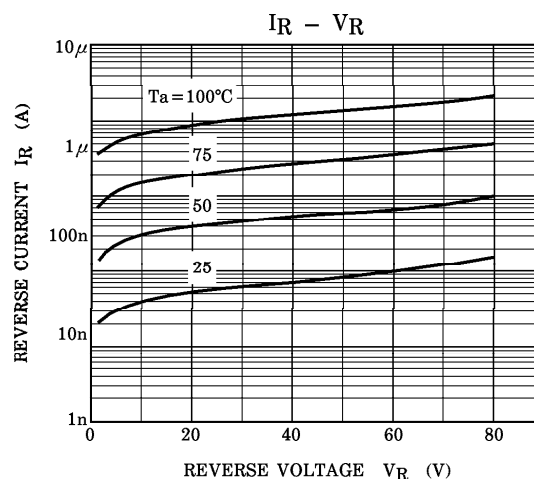
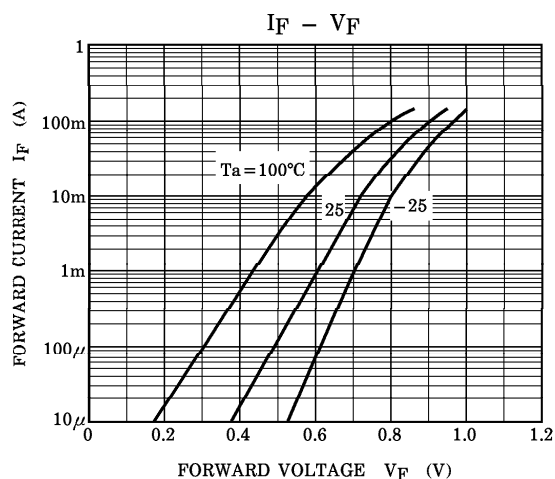
#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                        | Symbol    | Rating     | Unit             |
|----------------------------------|-----------|------------|------------------|
| Peak Reverse voltage             | $V_{RM}$  | 85         | V                |
| DC Blocking Voltage              | $V_R$     | 80         |                  |
| Average Rectified Output Current | $I_o$     | 100        | mA               |
| Peak forward surge current       | $I_{FM}$  | 300        |                  |
| Power Dissipation                | $P_D$     | 150        | mW               |
| Junction Temperature             | $T_J$     | 125        | $^\circ\text{C}$ |
| Storage temperature range        | $T_{stg}$ | -55 to 150 |                  |

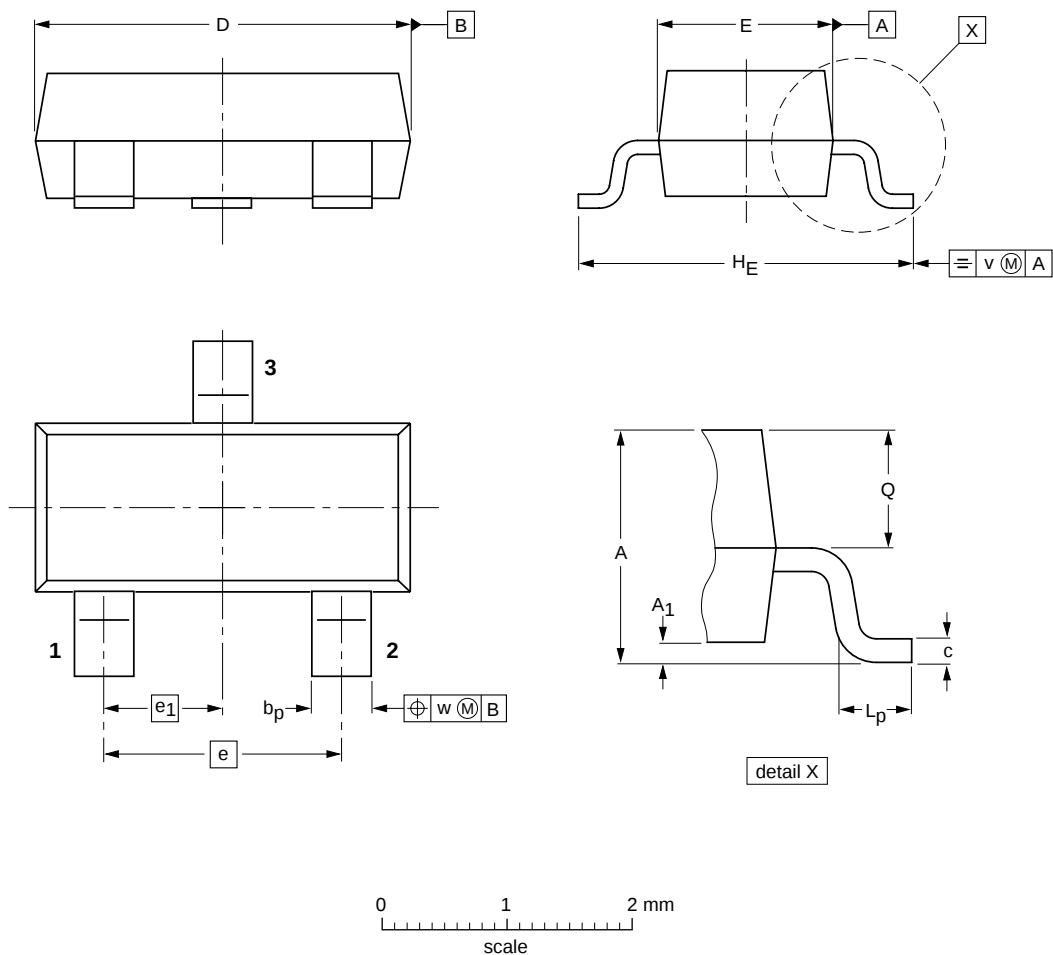
#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter                       | Symbol   | Test Conditions                        | Min | Typ  | Max | Unit          |
|---------------------------------|----------|----------------------------------------|-----|------|-----|---------------|
| Reverse breakdown voltage       | $V_R$    | $I_R = 100 \text{ }\mu\text{A}$        | 80  |      |     | V             |
| Forward voltage                 | $V_{F1}$ | $I_F = 1 \text{ mA}$                   |     | 0.6  |     |               |
|                                 | $V_{F2}$ | $I_F = 10 \text{ mA}$                  |     | 0.72 |     |               |
|                                 | $V_{F3}$ | $I_F = 100 \text{ mA}$                 |     | 0.9  | 1.2 |               |
| Reverse voltage leakage current | $I_{R1}$ | $V_R = 30 \text{ V}$                   |     |      | 0.1 | $\mu\text{A}$ |
|                                 | $I_{R2}$ | $V_R = 80 \text{ V}$                   |     |      | 0.5 |               |
| Capacitance between terminals   | $C_T$    | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$ |     | 0.9  | 3   | pF            |
| Reverse recovery time           | $t_{rr}$ | $I_F = 10 \text{ mA}$                  |     | 1.6  | 4   | ns            |

■ Typical Characteristics



■ SOT-23



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>0.9 | 0.1                    | 0.48<br>0.38   | 0.15<br>0.09 | 3.0<br>2.8 | 1.4<br>1.2 | 1.9 | 0.95           | 2.5<br>2.1     | 0.45<br>0.15   | 0.55<br>0.45 | 0.2 | 0.1 |