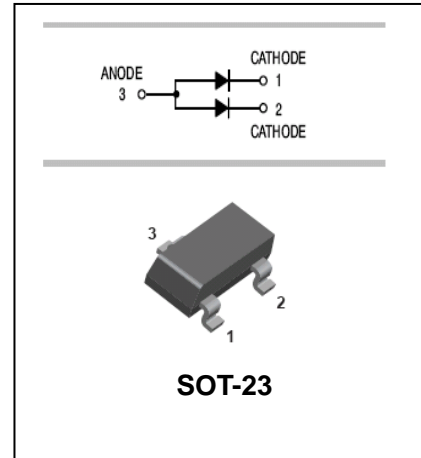


## Surface mount switching diode

## 1SS181

### FEATURES

- Low forward voltage  
 $V_{F(3)}=0.92V(\text{typ})$ .
- Fast switching.
- Fast reverse recovery time:  $t_{rr}=1.6ns(\text{typ})$



### APPLICATIONS

- High speed switching application.

### ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| 1SS181   | A3      | SOT-23       |

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Characteristic                       | Symbol    | Limits      | Unit |
|--------------------------------------|-----------|-------------|------|
| Non-Repetitive Peak Reverse Voltage  | $V_{RM}$  | 85          | V    |
| DC Reverse Voltage                   | $V_R$     | 80          | V    |
| Forward current(max)                 | $I_{FM}$  | 300         | mA   |
| Forward Output current               | $I_o$     | 100         | mA   |
| Power Dissipation                    | $P_d$     | 150         | mW   |
| Operating Junction Temperature Range | $T_j$     | 125         | °C   |
| Storage Temperature Range            | $T_{STG}$ | -55 to +125 | °C   |

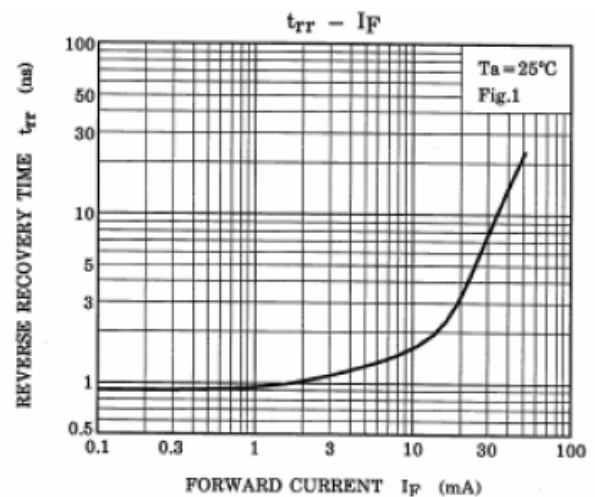
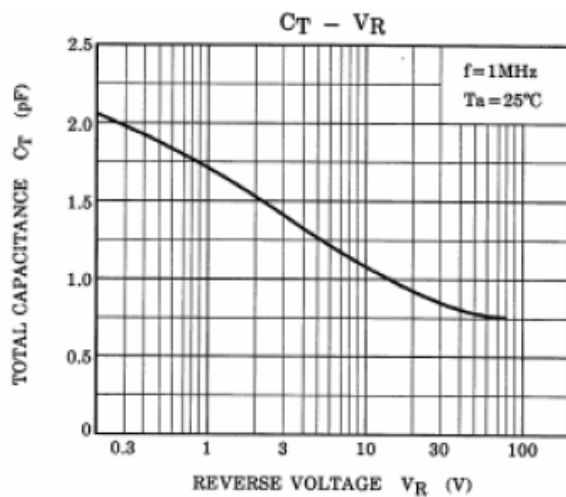
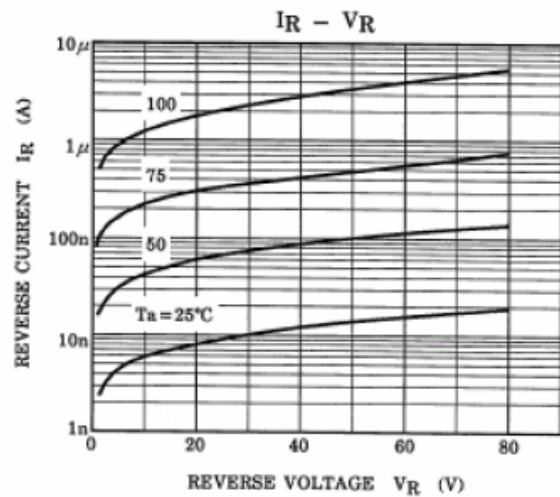
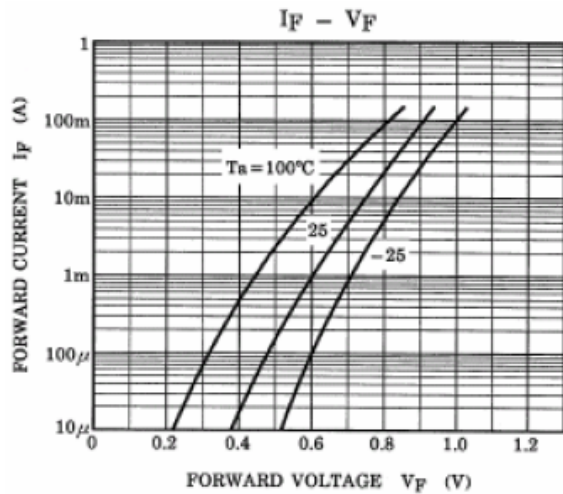
### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Characteristic            | Symbol      | Min | Typ                  | MAX        | UNIT    | Test Condition                         |
|---------------------------|-------------|-----|----------------------|------------|---------|--|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 80  | -                    | -          | V       | $I_R=100\mu A$                         |
| Forward Voltage           | $V_F$       | -   | 0.61<br>0.74<br>0.92 | 1.2        | V       | $I_F=1mA$<br>$I_F=10mA$<br>$I_F=100mA$ |
| Reverse Leakage Current   | $I_R$       | -   |                      | 0.1<br>0.5 | $\mu A$ | $V_R=30V$<br>$V_R=80V$                 |
| Junction Capacitance      | $C_j$       | -   | 2.2                  | 4.0        | pF      | $V_R=0V, f=1.0MHz$                     |
| Reverse Recovery Time     | $t_{rr}$    | -   | 1.6                  | 4.0        | ns      | $I_F=I_R=10mA, I_{rr}=0.1*I_R$         |

## Surface mount switching diode

## 1SS181

TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified



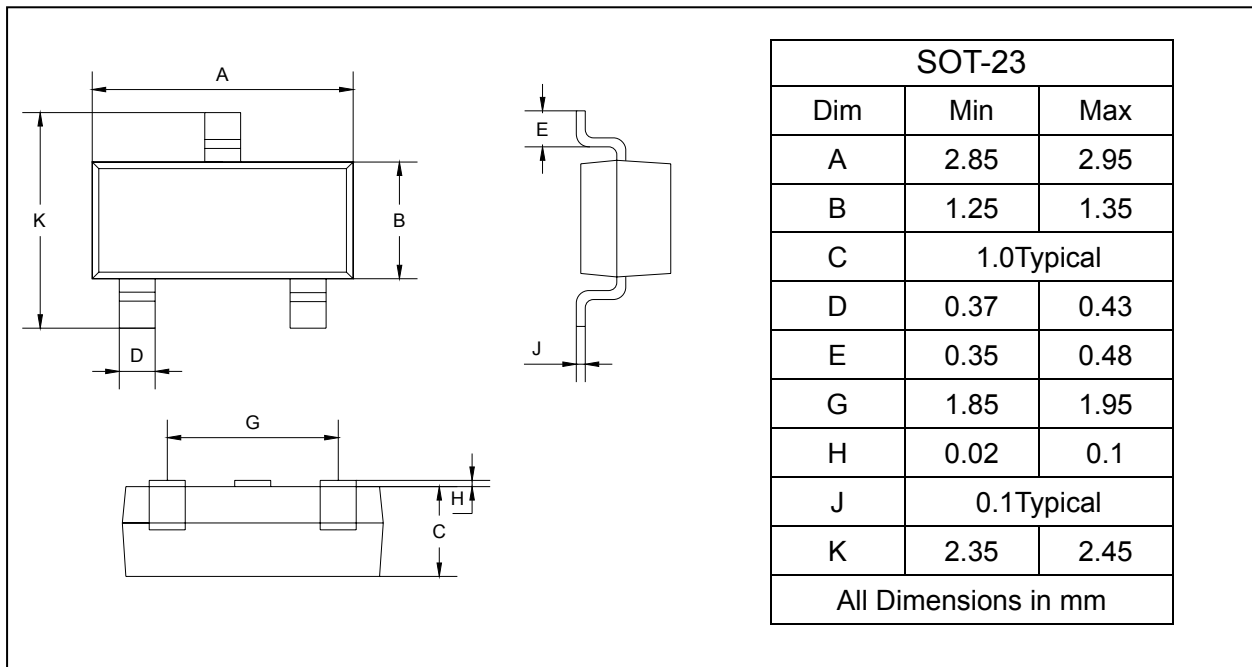
## Surface mount switching diode

## 1SS181

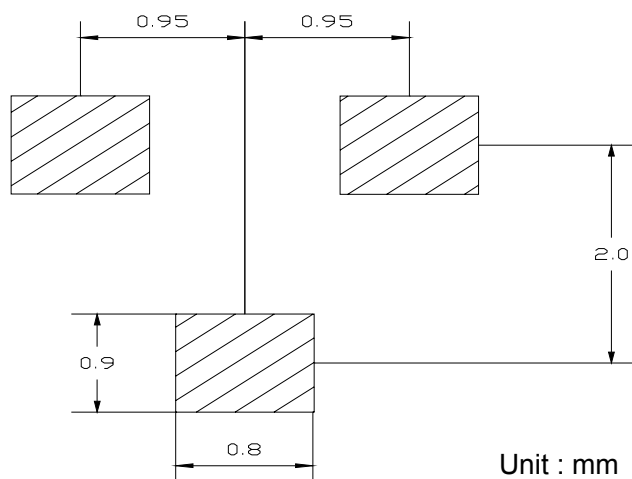
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

| Device | Package | Shipping       |
|--------|---------|----------------|
| 1SS181 | SOT-23  | 3000/Tape&Reel |