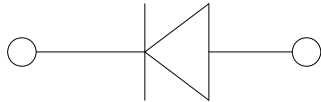
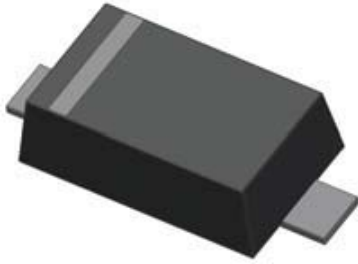


## Small-Signal Fast Switching Diodes



### Features

- $V_R$  80V
- $I_o$  100mA

### Typical Applications

- Extreme fast switches

### Mechanical Data

- **Package:** SOD-523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** A

### ■Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER                                 | SYMBOL    | UNIT             | Conditions           | VALUE       |
|-------------------------------------------|-----------|------------------|----------------------|-------------|
| Repetitive peak reverse voltage           | $V_{RRM}$ | V                |                      | 90          |
| Reverse voltage                           | $V_R$     | V                | $I_R=100\mu\text{A}$ | 80          |
| Non-Repetitive Peak forward surge current | $I_{FSM}$ | A                | 8.3ms@half-sine      | 2           |
| Forward continuous current                | $I_{FM}$  | mA               |                      | 225         |
| Average rectified output current          | $I_o$     | mA               |                      | 100         |
| Power dissipation                         | $P_D$     | mW               |                      | 150         |
| Junction temperature                      | $T_j$     | $^\circ\text{C}$ |                      | -55 to +150 |
| Storage temperature range                 | $T_{stg}$ | $^\circ\text{C}$ |                      | -55 to +150 |

### ■Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

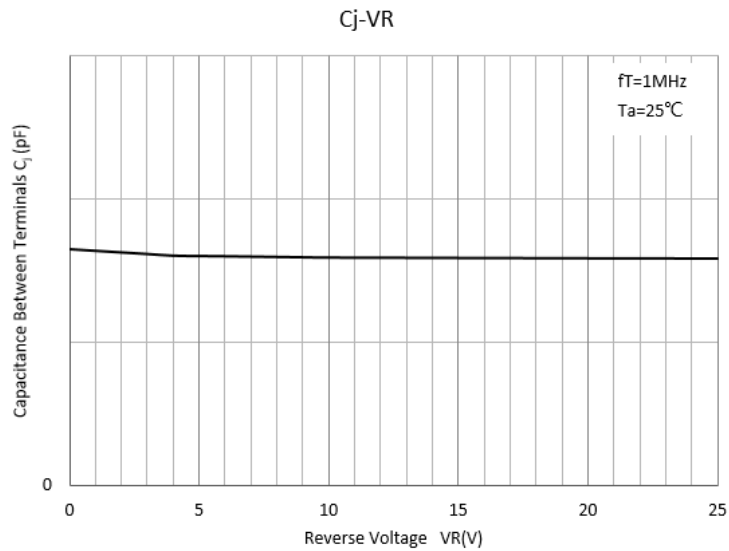
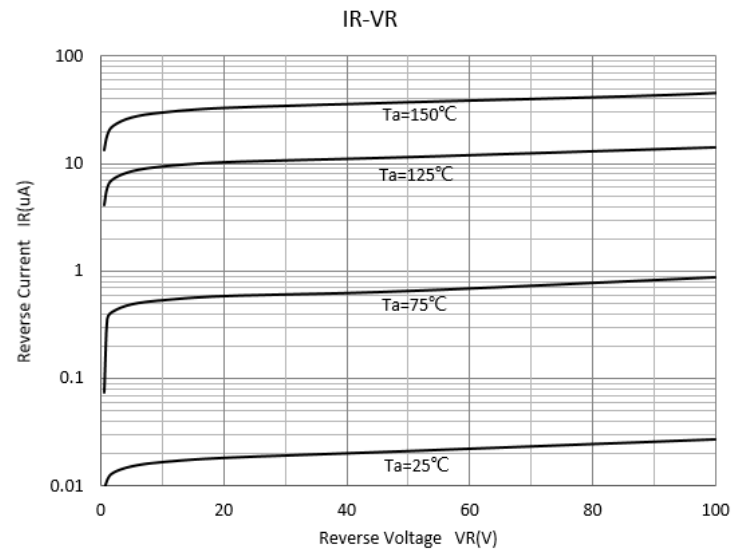
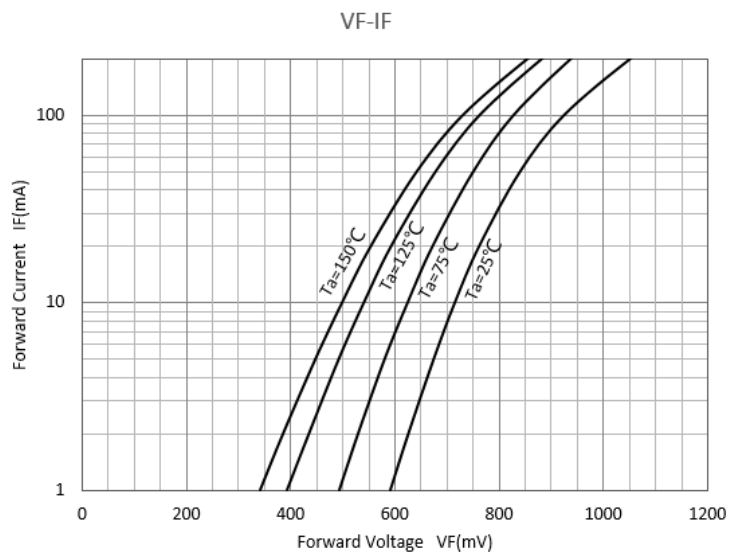
| PARAMETER               | Symbol   | UNIT          | Conditions                                        | Min | Max |
|-------------------------|----------|---------------|---------------------------------------------------|-----|-----|
| Breakdown Voltage       | $V_R$    | V             | $I_R=100\mu\text{A}$                              | 80  |     |
| Forward Voltage         | $V_F$    | V             | $I_F=100\text{mA}$                                |     | 1.2 |
| Reverse Leakage Current | $I_R$    | $\mu\text{A}$ | $V_R=80\text{V}$                                  |     | 0.1 |
| Diode Capacitance       | $C_D$    | pF            | $V_R=0.5\text{V}, f=1\text{MHz}$                  |     | 3   |
| Reverse Recovery Time   | $T_{RR}$ | ns            | $V_R=6\text{V}, I_F=10\text{mA}, R_L=100\text{W}$ |     | 4   |

### ■Ordering Information (Example)

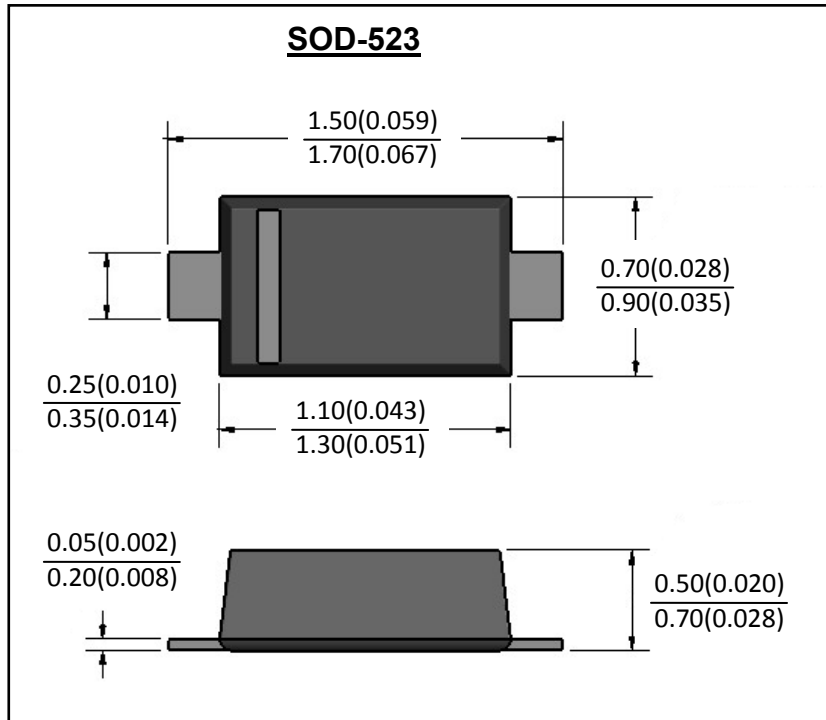
| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| 1SS400        | F2           | Approximate 0.002 | 8000                 | 80000                   | 320000                     | 7" reel       |



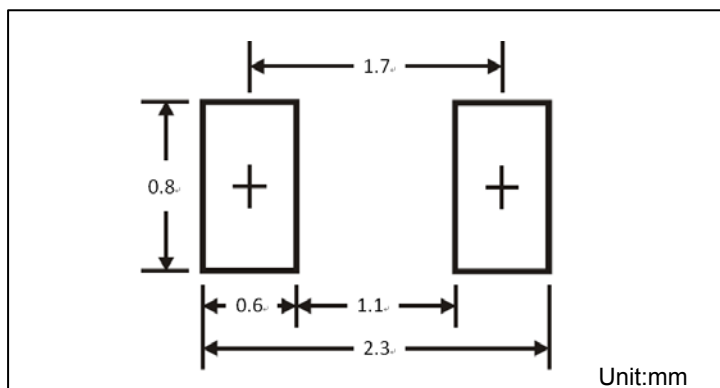
## ■ Characteristics (Typical)



## ■ SOD-523 Package Outline Dimensions



## ■ SOD-523 Soldering Footprint





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