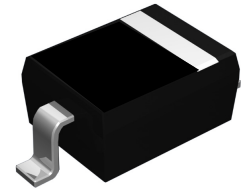
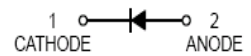


## Features

- Small plastic SMD package
- High switching speed: max.4ns
- Continuous reverse voltage: max.100V
- Repetitive peak reverse voltage: max.100V
- Repetitive peak forward current: max.500mA



SOD-323



Schematic Diagram

## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

| Characteristic                         | Symbol                            | Value       | Unit |
|--|-----------------------------------|-------------|------|
| Repetitive Peak Reverse Voltage        | V <sub>RRM</sub>                  | 100         | V    |
| Continuous Reverse Voltage             | V <sub>R</sub>                    | 100         | V    |
| Continuous Forward Current             | I <sub>F</sub>                    | 250         | mA   |
| Repetitive Peak Forward Current        | I <sub>FRM</sub>                  | 500         | mA   |
| Non-Repetitive Peak Forward Current    | I <sub>FSM</sub>                  | t=1μs       | 4    |
|  |                                   | t=1ms       | 1    |
|  |                                   | t=1s        | 0.5  |
| Power Dissipation                      | P <sub>D</sub>                    | 400         | mW   |
| Junction and Storage Temperature Range | T <sub>J</sub> , T <sub>STG</sub> | -65 to +150 | °C   |

**Electrical Characteristics** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

| Characteristic                | Symbol      | Min | Max                           | Unit          | Test Condition   |
|-------------------------------|-------------|-----|-------------------------------|---------------|--|
| Reverse Breakdown Voltage     | $V_{(BR)R}$ | 100 | -                             | V             | $I_R=100\mu\text{A}$   |
| Forward Voltage               | $V_F$       | -   | 0.715<br>0.855<br>1.0<br>1.25 | V             | $I_F=1.0\text{mA}$<br>$I_F=10\text{mA}$<br>$I_F=50\text{mA}$<br>$I_F=150\text{mA}$ |
| Reverse Current               | $I_R$       | -   | 1.0<br>0.03                   | $\mu\text{A}$ | $V_R=75\text{V}$<br>$V_R=25\text{V}$   |
| Capacitance Between Terminals | $C_T$       | -   | 1.5                           | pF            | $V_R=0, f=1.0\text{MHz}$   |
| Reverse Recovery Time         | $t_{rr}$    | -   | 4.0                           | ns            | $I_F=I_R=10\text{mA}, R_L=100\Omega$   |

**Ratings and Characteristics Curves**

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

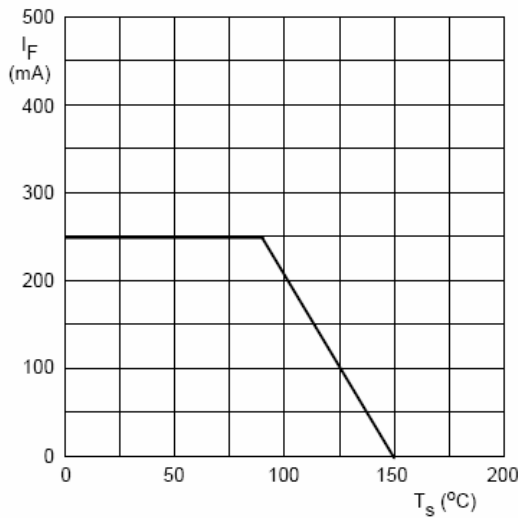


Fig.1 Maximum permissible continuous forward current as a function of soldering point temperature.

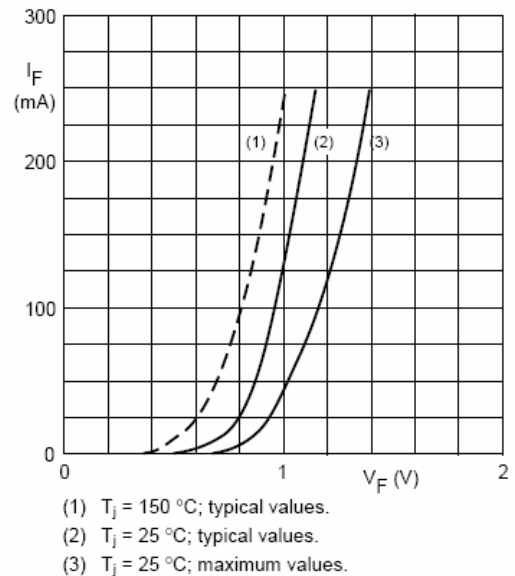


Fig.2 Forward current as a function of forward voltage.

## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

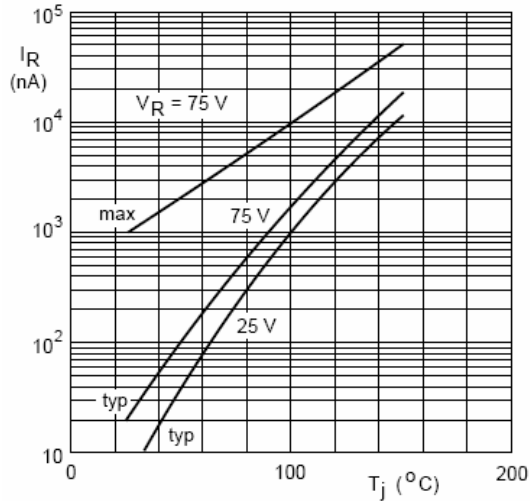
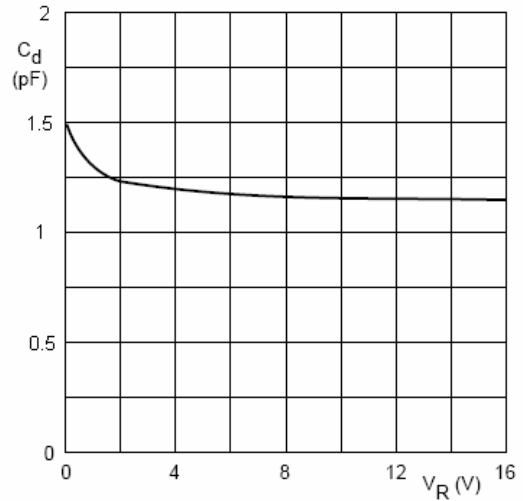


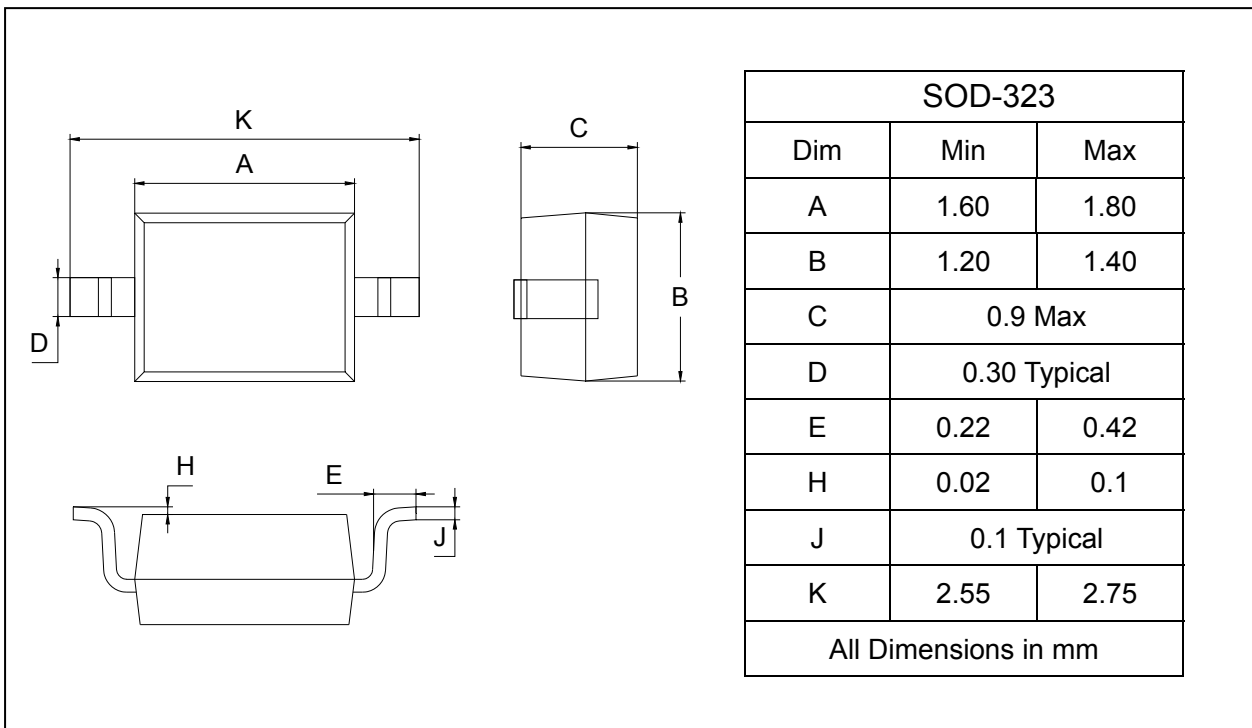
Fig.3 Reverse current as a function of junction temperature.



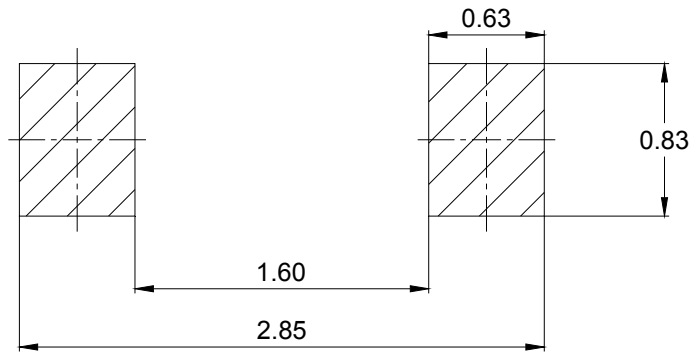
$f = 1 \text{ MHz}; T_j = 25^\circ\text{C}$ .

Fig.4 Diode capacitance as a function of reverse voltage; typical values.

## Package Outline Dimensions



### Soldering Footprint



Unit : mm

### Ordering Information

| Device | Package | Marking | Quantity       | HSF Status     |
|--------|---------|---------|----------------|----------------|
| BAS316 | SOD-323 | A6      | 3000pcs / Reel | RoHS Compliant |