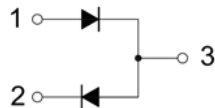
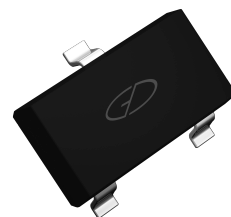


## Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance



Schematic Diagram



Package SOT-23

## Maximum Ratings and Thermal Characteristics

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

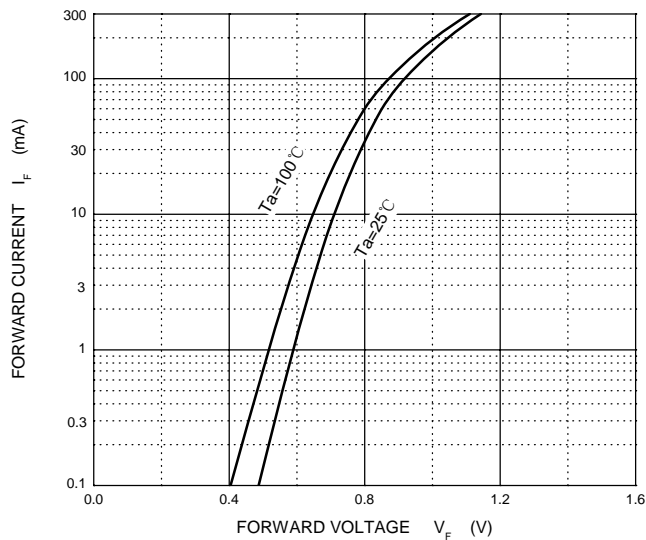
| Parameter  | Symbol          | Limit       | Unit                 |
|--|-----------------|-------------|----------------------|
| Reverse Voltage  | $V_R$           | 70          | V                    |
| Forward Current  | $I_F$           | 200         | mA                   |
| Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$ | $I_{FSM}$       | 2.0         | A                    |
| Power Dissipation  | $P_D$           | 225         | mW                   |
| Thermal Resistance Junction to Ambient                       | $R_{\theta JA}$ | 556         | $^{\circ}\text{C/W}$ |
| Junction Temperature   | $T_J$           | -55 to +150 | $^{\circ}\text{C}$   |
| Storage Temperature range                                    | $T_{STG}$       | -55 to +150 | $^{\circ}\text{C}$   |

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

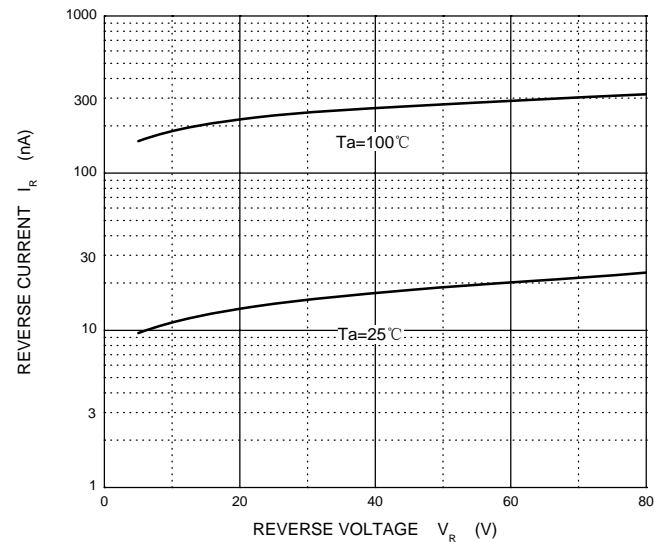
| Parameter                     | Symbol   | Min | Typ | Max   | Unit          | Conditions   |
|-------------------------------|----------|-----|-----|-------|---------------|--|
| Reverse Breakdown Voltage     | $V_R$    | 70  |     |       | V             | $I_R=100\mu\text{A}$   |
| Forward Voltage               | $V_{F1}$ |     |     | 0.715 | V             | $I_F=1\text{mA}$   |
|                               | $V_{F2}$ |     |     | 0.855 | V             | $I_F=10\text{mA}$  |
|                               | $V_{F3}$ |     |     | 1     | V             | $I_F=50\text{mA}$  |
|                               | $V_{F4}$ |     |     | 1.25  | V             | $I_F=150\text{mA}$   |
| Reverse Current               | $I_R$    |     |     | 2.5   | $\mu\text{A}$ | $V_R=70\text{V}$   |
| Capacitance Between Terminals | $C_T$    |     |     | 1.5   | pF            | $V_R=0, f=1\text{MHz}$   |
| Reverse Recovery Time         | $t_{rr}$ |     |     | 6     | ns            | $I_F = I_R = 10\text{mA}$ ,<br>$I_{rr} = 0.1 \times I_R$ , $R_L = 100\Omega$ |

## Typical Characteristic Curves

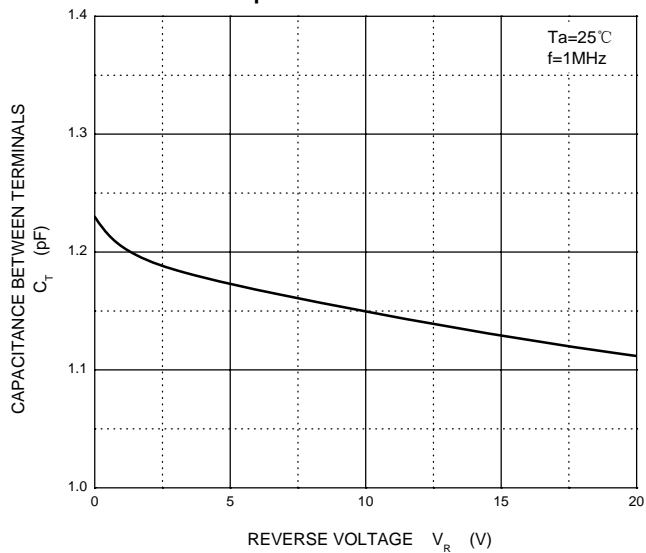
Forward Characteristics



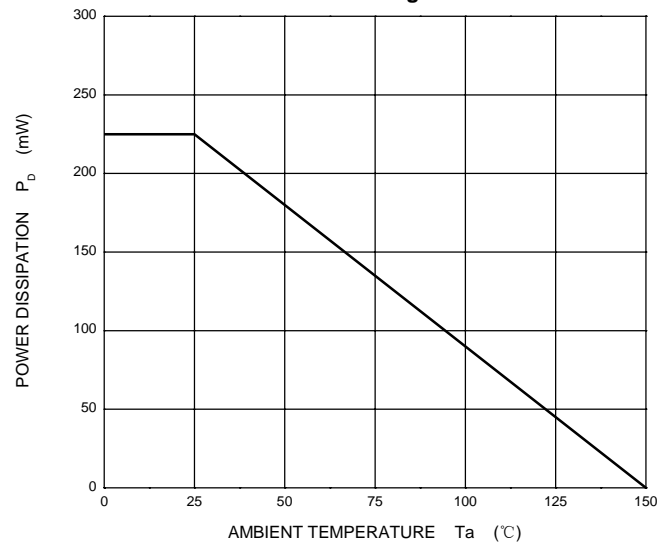
Reverse Characteristics



Capacitance Characteristics

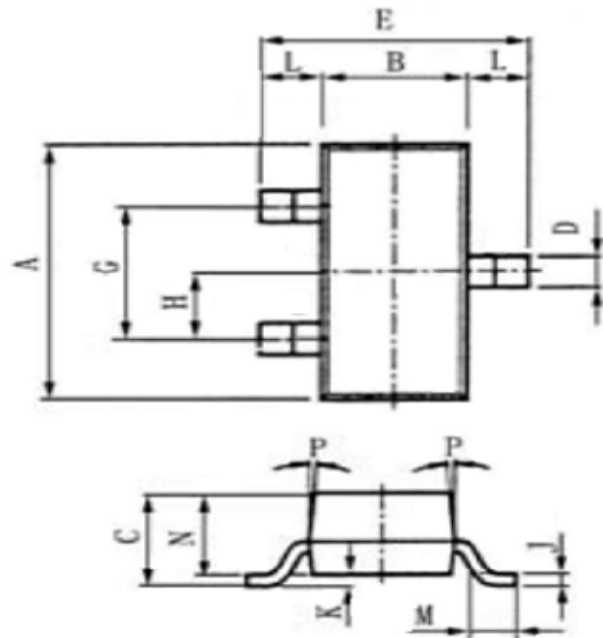


Power Derating Curve



**Package Outline Dimensions**

**SOT-23**



|   |                 |
|---|-----------------|
| A | 2.9±0.02        |
| B | 1.30+0.20/-0.15 |
| C | 1.30MAX         |
| D | 0.40+0.15/-0.05 |
| E | 2.40+0.30/-0.20 |
| G | 1.9±0.2         |
| H | 0.95±0.1        |
| J | 0.10+0.10/-0.05 |
| K | 0.00-0.10       |
| L | 0.55±0.1        |
| M | 0.2MIN          |
| N | 1.00+0.20/-0.10 |
| P | 7"              |