

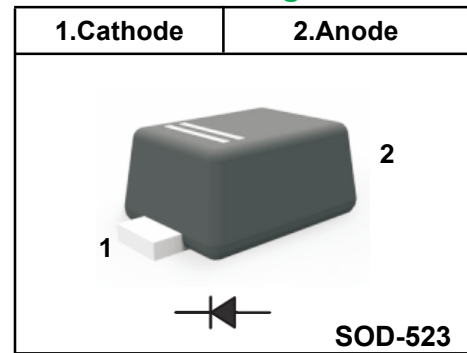
**Silicon Epitaxial Planar Switching Diode**

for high speed switching application

**FEATURES**

- ◆Extremely small surface mounting type
- ◆High reliability

**Pinning**



**Marking Code**

|                 |          |
|-----------------|----------|
| <b>1SS400WT</b> | <b>A</b> |
|-----------------|----------|

**Absolute Maximum Ratings (Ta = 25°C)**

| Parameter  | Symbol      | Value         | Unit |
|--|-------------|---------------|------|
| Peak Reverse Voltage                                   | $V_{RM}$    | 90            | V    |
| Reverse Voltage  | $V_R$       | 80            | V    |
| Average Rectified Forward Current                      | $I_{F(AV)}$ | 100           | mA   |
| Peak Forward Current                                   | $I_{FM}$    | 225           | mA   |
| Non-repetitive Peak Forward Surge Current (at t = 1 s) | $I_{FSM}$   | 500           | mA   |
| Junction Temperature                                   | $T_j$       | 150           | °C   |
| Storage Temperature Range                              | $T_{stg}$   | - 55 to + 150 | °C   |

**Characteristics at Ta = 25°C**

| Parameter   | Symbol   | Max. | Unit |
|---|----------|------|------|
| Forward Voltage<br>at $I_F = 100$ mA                                  | $V_F$    | 1.2  | V    |
| Reverse Current<br>at $V_R = 80$ V                                    | $I_R$    | 0.1  | μA   |
| Capacitance Between Terminals<br>at $V_R = 0.5$ V, $f = 1$ MHz        | $C_T$    | 3    | pF   |
| Reverse Recovery Time<br>at $V_R = 6$ V, $I_F = 10$ mA, $R_L = 100$ Ω | $t_{rr}$ | 4    | ns   |

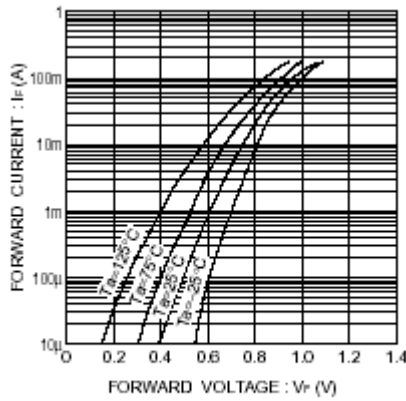


Fig.1 Forward characteristics

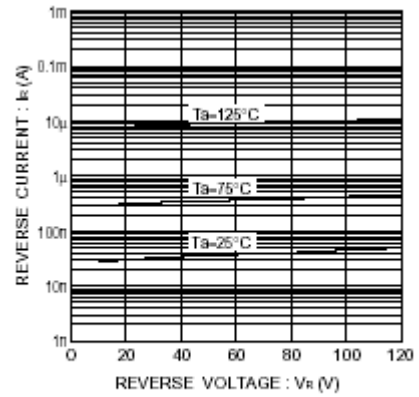


Fig.2 Reverse characteristics

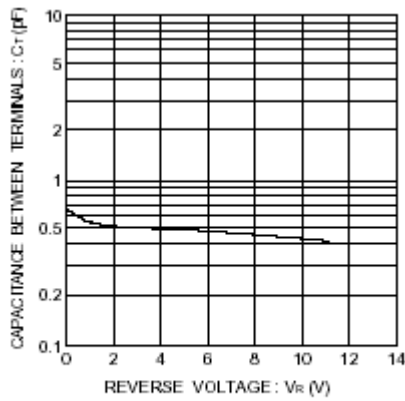


Fig.3 Capacitance between terminals

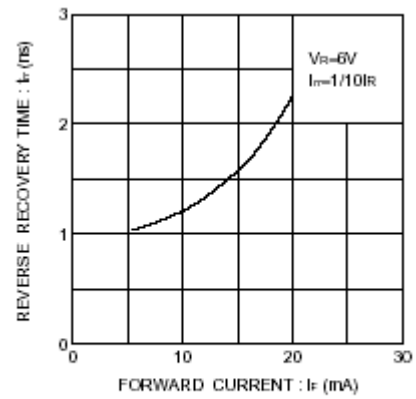


Fig.4 Reverse recovery time characteristics

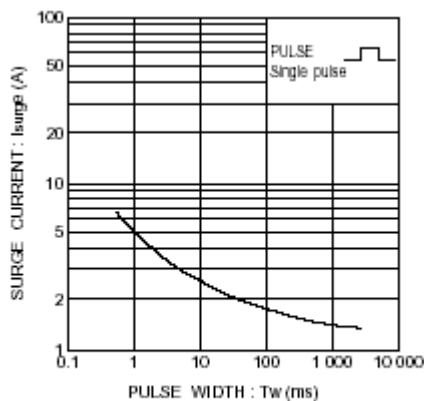


Fig.5 Surge current characteristics

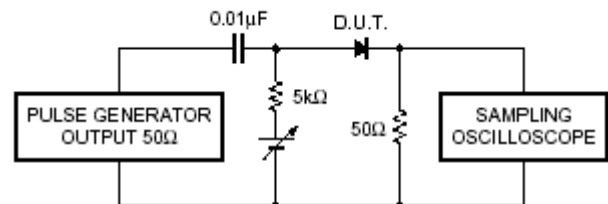


Fig.6 Reverse recovery time ( $t_{rr}$ ) measurement circuit

**Ordering information**

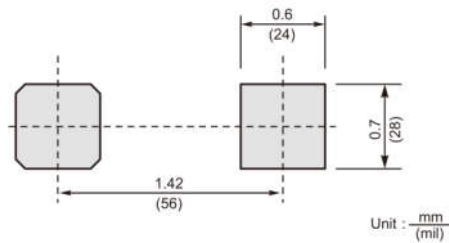
| Package | Packing Description | Packing Quantity              |
|---------|---------------------|-------------------------------|
| SOD-523 | Tape/Reel, 7" reel  | 3000PCS/Reel 120000PCS/Carton |

**Package Dimensions**

**SOD-523**

| Dim. | Millimeter(mm) |      | mil            |      |
|------|----------------|------|----------------|------|
|      | Min.           | Max. | Min.           | Max. |
| A    | 0.51           | 0.77 | 20             | 30   |
| e    | 0.25           | 0.35 | 10             | 14   |
| C    | 0.08           | 0.15 | 3              | 6    |
| D    | 1.10           | 1.30 | 43             | 51   |
| E    | 0.75           | 0.99 | 30             | 39   |
| HE   | 1.50           | 1.70 | 59             | 67   |
| N    | 0.35ref        |      | 14ref          |      |
| L    | 0.2ref         |      | 8ref           |      |
| P    | R0.1 ALL ROUND |      | R4.0 ALL ROUND |      |
| ∠    | 10°            |      |                |      |

**The recommended mounting pad size**



## Disclaimer

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