

# 1SS400-AU

## Surface Mount Switching Diodes

**Voltage**

**100 V**

**Power**

**175 mW**

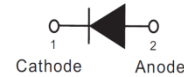
### Features

- Fast switching speed.
- Very low leakage current
- Low capacitance
- Surface mount package Ideally Suited for Automatic insertion
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case: SOD-523 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0014 grams

SOD-523



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

| PARAMETER                                          | SYMBOL             | LIMIT   | UNITS |
|----------------------------------------------------|--------------------|---------|-------|
| Reverse Voltage                                    | V <sub>R</sub>     | 100     | V     |
| Peak Reverse Voltage                               | V <sub>RM</sub>    | 100     | V     |
| Maximum Average Forward Current                    | I <sub>F(AV)</sub> | 225     | mA    |
| Non-repetitive Peak Forward Current                | I <sub>FSM</sub>   | 4       | A     |
|                                                    | tp = 0.001 ms      |         |       |
| Power Dissipation <sup>(Note 1)</sup>              | P <sub>D</sub>     | 175     | mW    |
| Typical Junction Capacitance                       | C <sub>J</sub>     | 1       | pF    |
| Measured at 1 MHz And Applied V <sub>R</sub> = 0 V |                    |         |       |
| Typical Thermal Resistance <sup>(Note 1)</sup>     | R <sub>θJA</sub>   | 710     | °C/W  |
| Operating Junction Temperature Range               | T <sub>J</sub>     | -55~150 | °C    |
| Storage Temperature Range                          | T <sub>STG</sub>   | -55~150 | °C    |

# 1SS400-AU

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

| PARAMETER                                         | SYMBOL   | TEST CONDITION                                        | MIN. | TYP. | MAX. | UNITS         |
|---------------------------------------------------|----------|-------------------------------------------------------|------|------|------|---------------|
| Forward Voltage                                   | $V_F$    | $I_F = 100\text{ mA}, T_J = 25\text{ }^\circ\text{C}$ | -    | -    | 1.2  | V             |
| Reverse Current                                   | $I_R$    | $V_R = 80\text{ V}, T_J = 25\text{ }^\circ\text{C}$   | -    | -    | 0.1  | $\mu\text{A}$ |
| Maximum Reverse Recovery Time <sup>(Note 2)</sup> | $T_{RR}$ | ---                                                   | -    | -    | 4    | ns            |

NOTES :

1. Mounted on a FR4, single-sided copper, with 114 x 76mm PCB.
2. Test Condition :  $I_F=10\text{mA}$  to  $I_R=10\text{mA}$ , Recovery to 1mA,  $R_L=100\Omega$ .

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## TYPICAL CHARACTERISTIC CURVES

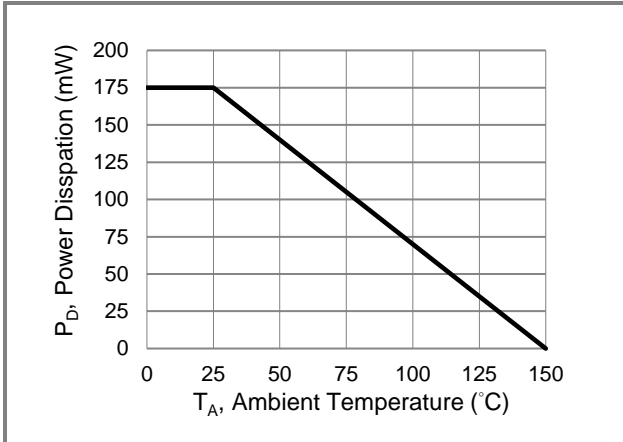


Fig.1 Power Derating Curve

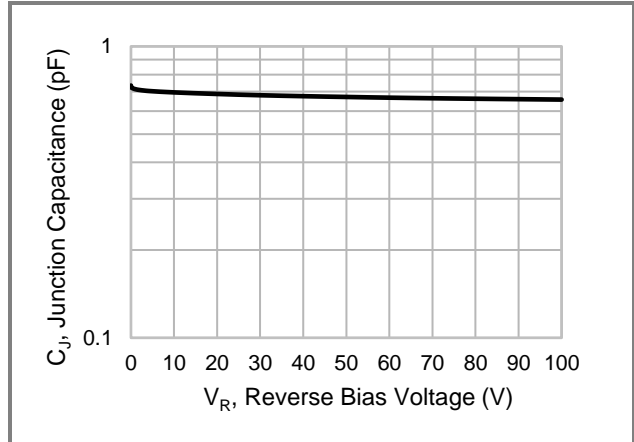


Fig.2 Typical Junction Capacitance

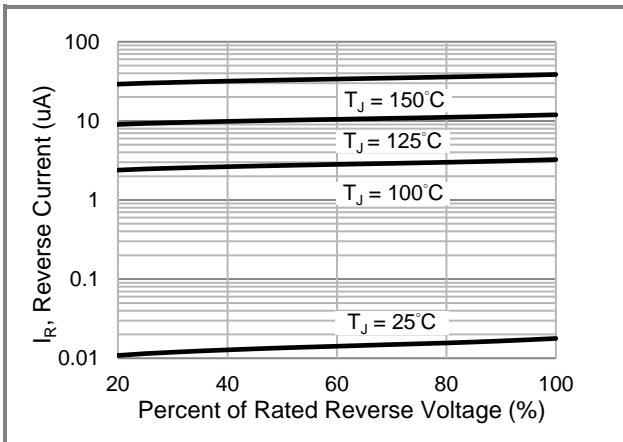


Fig.3 Typical Reverse Characteristics

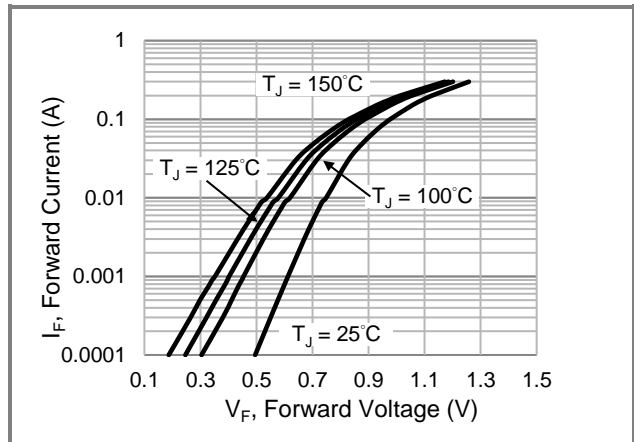


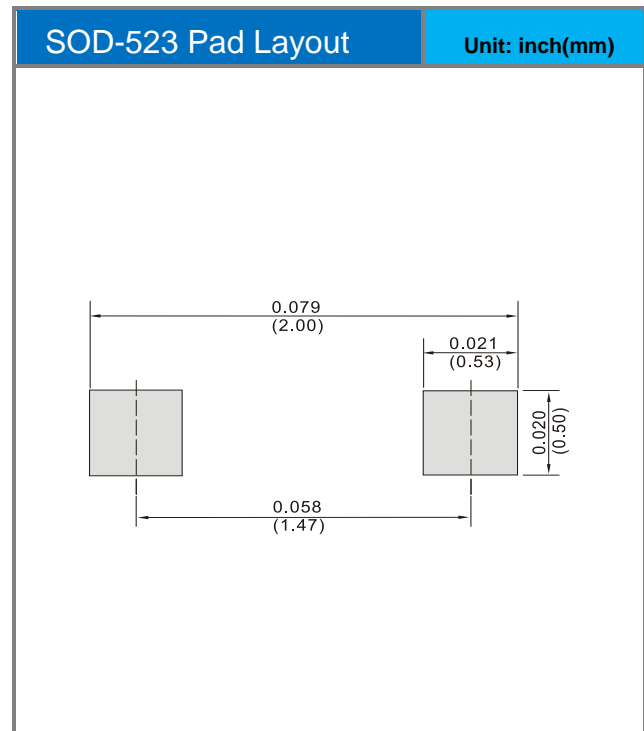
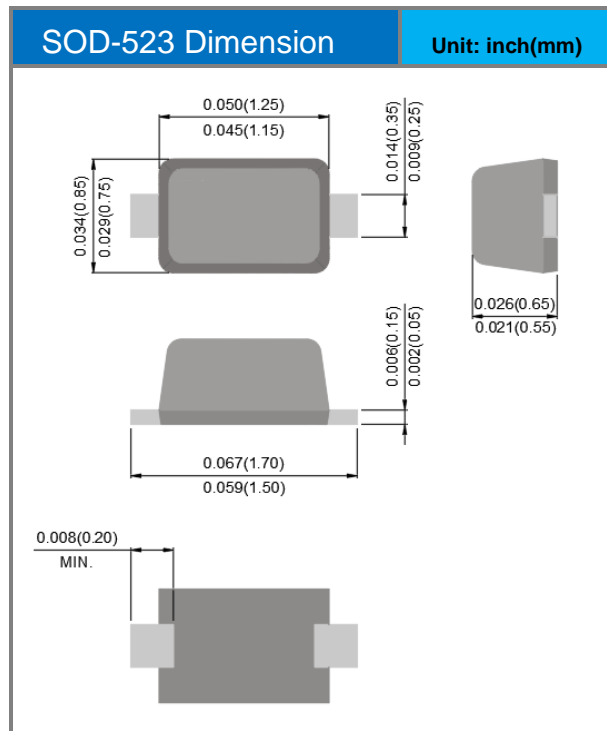
Fig.4 Typical Forward Characteristics

# 1SS400-AU

## Product and Packing Information

| Part No.  | Package Type | Packing Type     | Marking |
|-----------|--------------|------------------|---------|
| 1SS400-AU | SOD-523      | 5K pcs / 7" reel | 14      |

## Packaging Information & Mounting Pad Layout



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