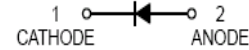


Features

- Low reverse current and forward voltage
- High reliability
- Low-profile SMT package

HF



Typical Applications

- General purpose in mobile, handheld & desktop systems

Mechanical Data

- Case: SOD-323
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



SOD-323

Ordering Information

| Part Number | Package | Shipping Quantity | Marking Code |
|-------------|---------|-----------------------|--------------|
| SD103AWS | SOD-323 | 3000pcs / Tape & Reel | S4 |
| SD103BWS | SOD-323 | 3000pcs / Tape & Reel | S5 |
| SD103CWS | SOD-323 | 3000pcs / Tape & Reel | S6 |

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

| Parameter | Symbol | SD103AWS | SD103BWS | SD103CWS | Unit |
|--|--------------------|----------|----------|----------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 40 | 30 | 20 | V |
| RMS Reverse Voltage | V _{RMS} | 28 | 21 | 14 | V |
| Maximum Average Forward Output Current | I _{F(AV)} | 350 | | | mA |
| Peak Forward Surge Current (8.3ms single half sine-wave) | I _{FSM} | 1.5 | | | A |

Thermal Characteristics

| Parameter | Symbol | Value | Unit |
|--|--------------------|------------|------|
| Power Dissipation | P _D | 200 | mW |
| Thermal Resistance (Junction-to-Ambient) | R _{θJA} * | 500 | °C/W |
| Thermal Resistance (Junction-to-Case) | R _{θJC} | 276 | °C/W |
| Operating junction Temperature | T _J | -55 ~ +125 | °C |
| Storage Temperature Range | T _{STG} | -55 ~ +150 | °C |

Note: * Part mounted on FR-4 board with recommended pad layout

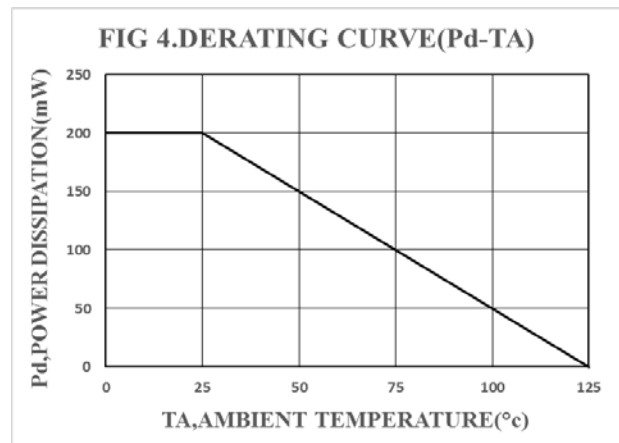
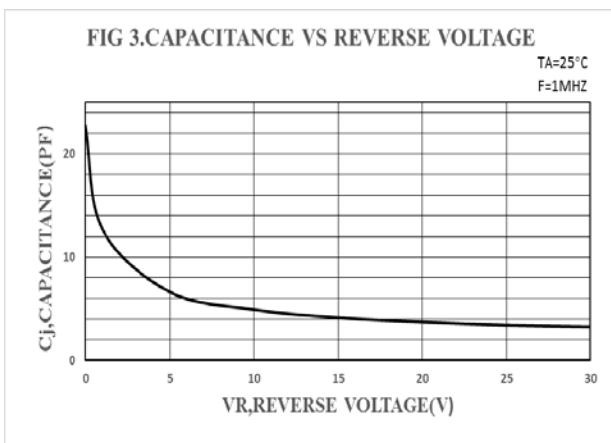
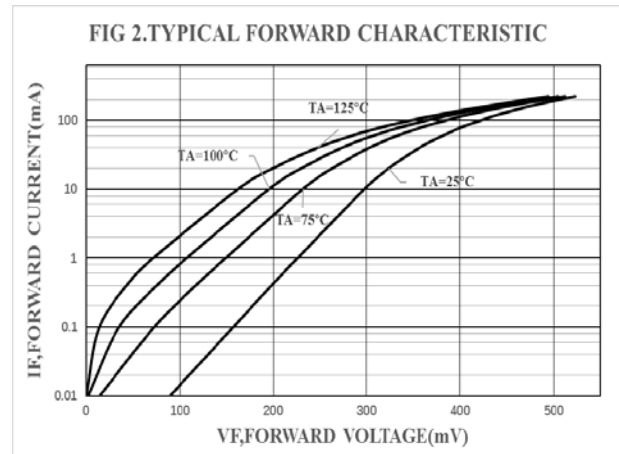
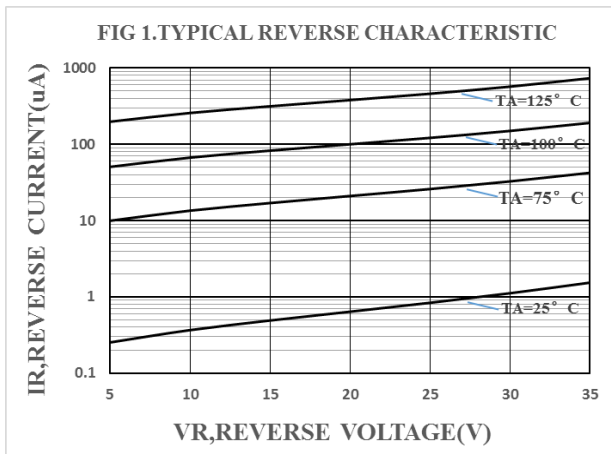
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|-------------------------------|------------|------------------------------------|------|------|------|---------------|
| Forward Voltage | V_F^* | $I_F = 20\text{mA}$ | - | - | 0.37 | V |
| | | $I_F = 200\text{mA}$ | - | - | 0.60 | |
| Maximum Peak Reverse Current | I_R^{**} | $V_R = 30\text{V}$ (SD103AWS) | - | - | 5 | μA |
| | | $V_R = 20\text{V}$ (SD103BWS) | | | | |
| | | $V_R = 10\text{V}$ (SD103CWS) | | | | |
| Capacitance between Terminals | C_T | $V_R = 0\text{V}, f = 1\text{MHz}$ | - | 22 | 50 | pF |

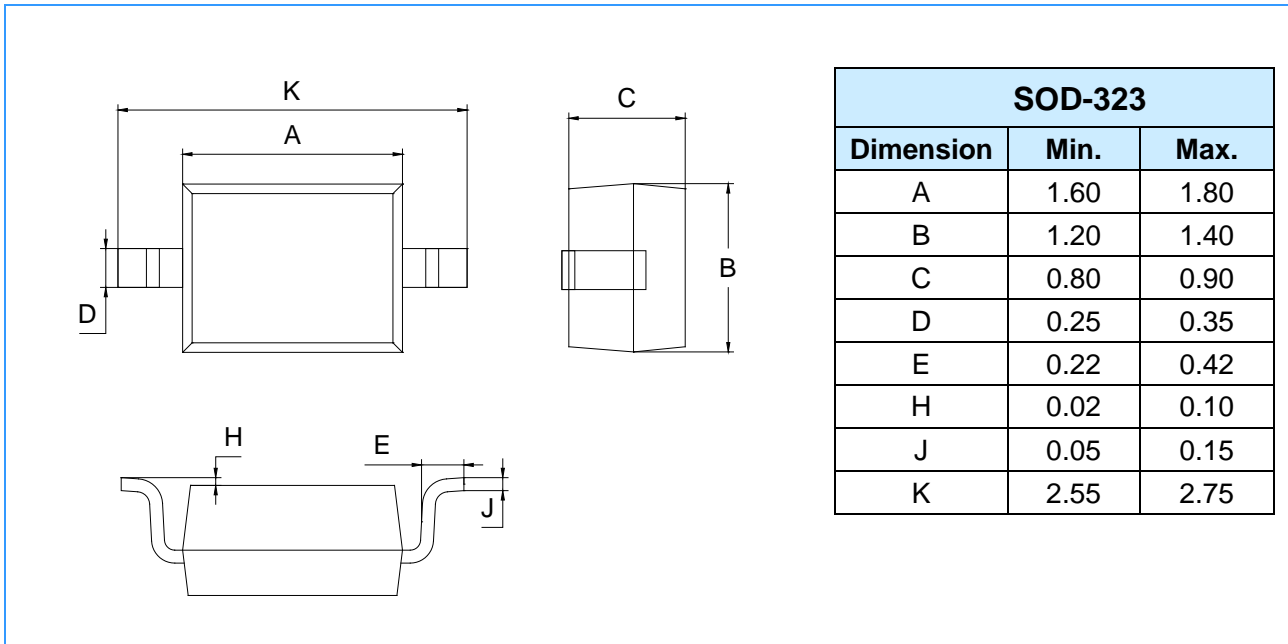
Note: * Pulse width $\leq 380\mu\text{s}$; duty cycle $< 2\%$

** Pulse test; $T_p \leq 5\text{ms}$

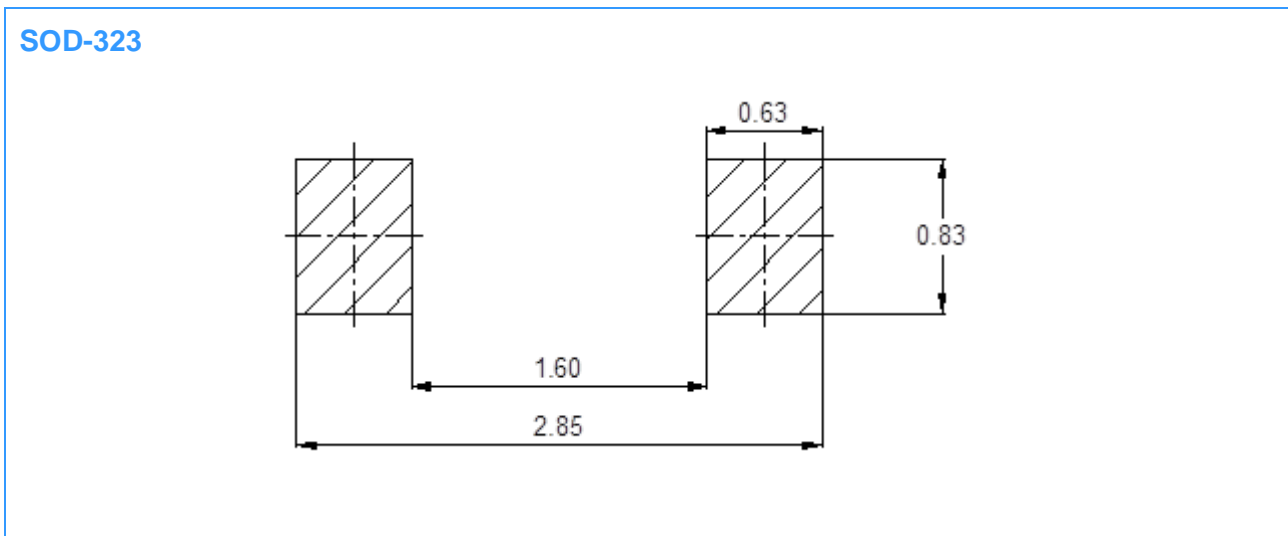
Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)



Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



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