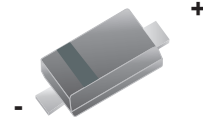


1SS400-G

Reverse Voltage: 90 Volts
Rectifying Current: 100 mA
RoHS Device

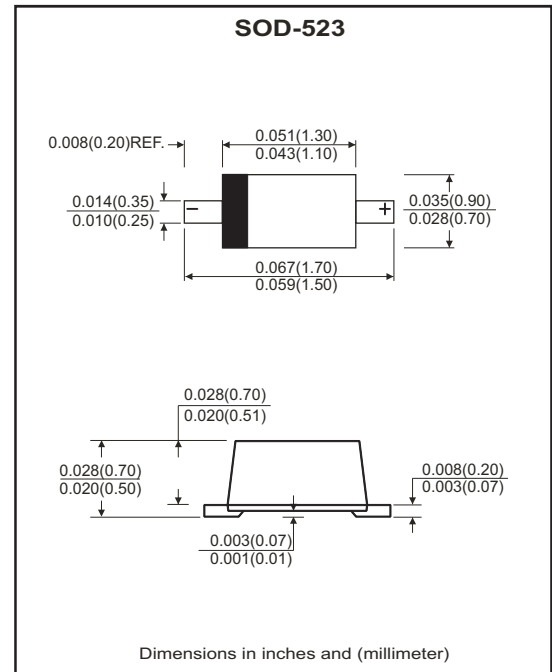


Features

- High speed switching.
- Small surface mounting type.
- High reliability with high surge current handling capability.

Mechanical data

- Case: SOD-523 standard package, Molded Plastic
- Terminals: Solderable per MIL-STD-750, method 2026
- Marking code: cathode band & A
- Mounting position: Any
- Weight: 0.012 gram(approx.)



Circuit Diagram



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

| Parameter | Symbol | 1SS400-G | Unit |
|---------------------------|-----------|------------|------------------|
| Peak reverse voltage | V_{RM} | 90 | V |
| DC reverse voltage | V_{DC} | 80 | V |
| Peak forward current | I_{FM} | 225 | mA |
| Mean rectified current | I_o | 100 | mA |
| Surge current | I_{FSM} | 500 | mA |
| Power dissipation | P_D | 150 | mW |
| Junction temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | -55 ~ +150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-------------------------------|----------|---|-------|-------|------|---------------|
| Forward voltage | V_F | $I_F=100\text{mA}$ | ----- | ----- | 1.2 | V |
| Reverse current | I_R | $V_R=80\text{V}$ | ----- | ----- | 0.1 | μA |
| Capacitance between terminals | C_T | $V_R=0.5\text{V}, f=1.0\text{MHz}$ | ----- | 0.72 | 3.0 | pF |
| Reverse recovery time | t_{rr} | $V_R=6\text{V}, I_F=10\text{mA}, R_L=100\Omega$ | ----- | ----- | 4.0 | nS |

Company reserves the right to improve product design , functions and reliability without notice.

RATING AND CHARACTERISTIC CURVES (1SS400-G)

Fig.1 - Power Derating Curve

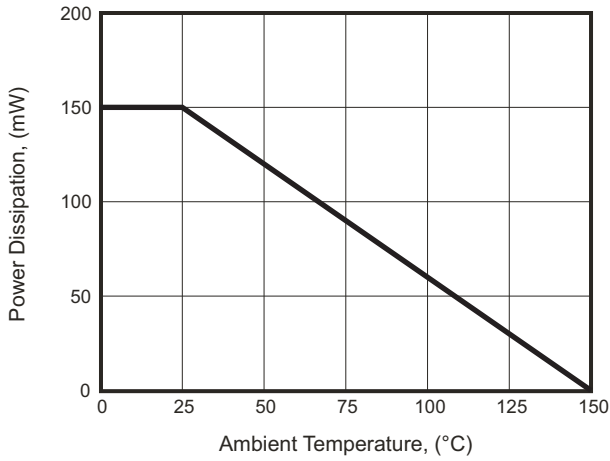


Fig.2 - Forward Characteristics

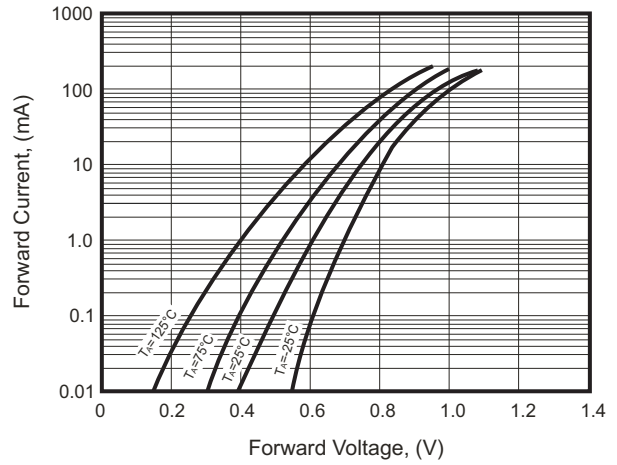


Fig.3 - Reverse Characteristics

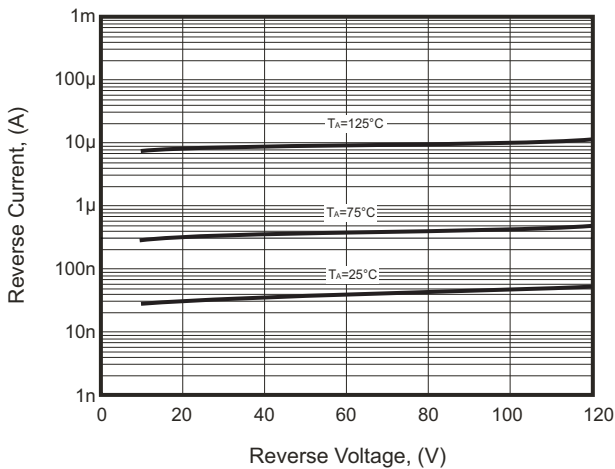


Fig.4 - Capacitance between terminals

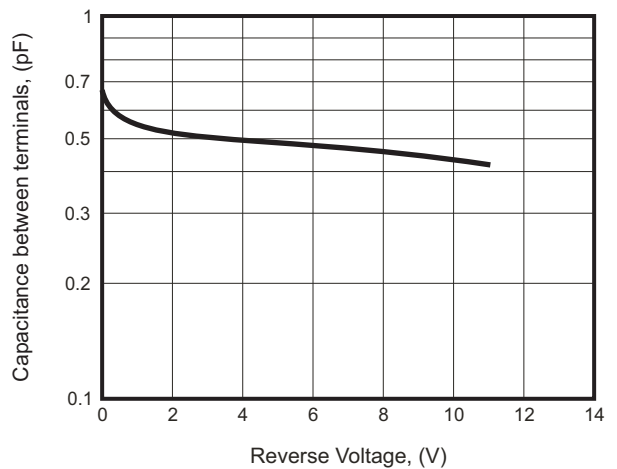


Fig.5 - Reverse Recovery Time Characteristics

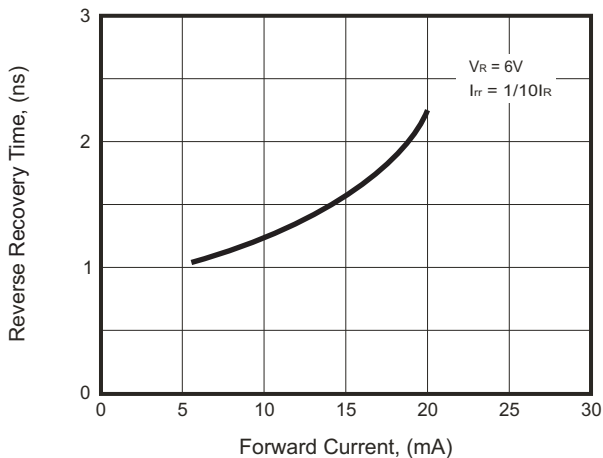
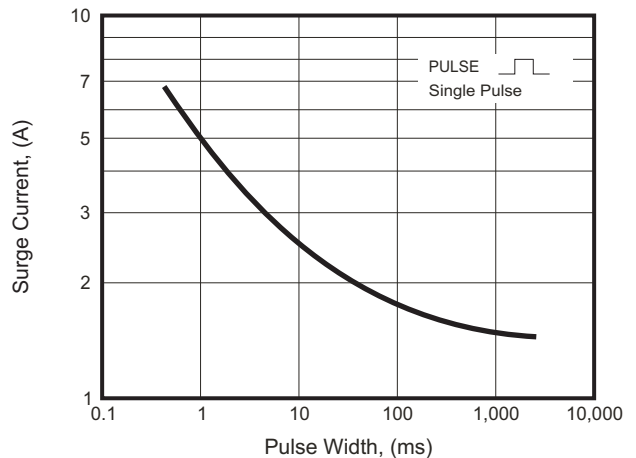
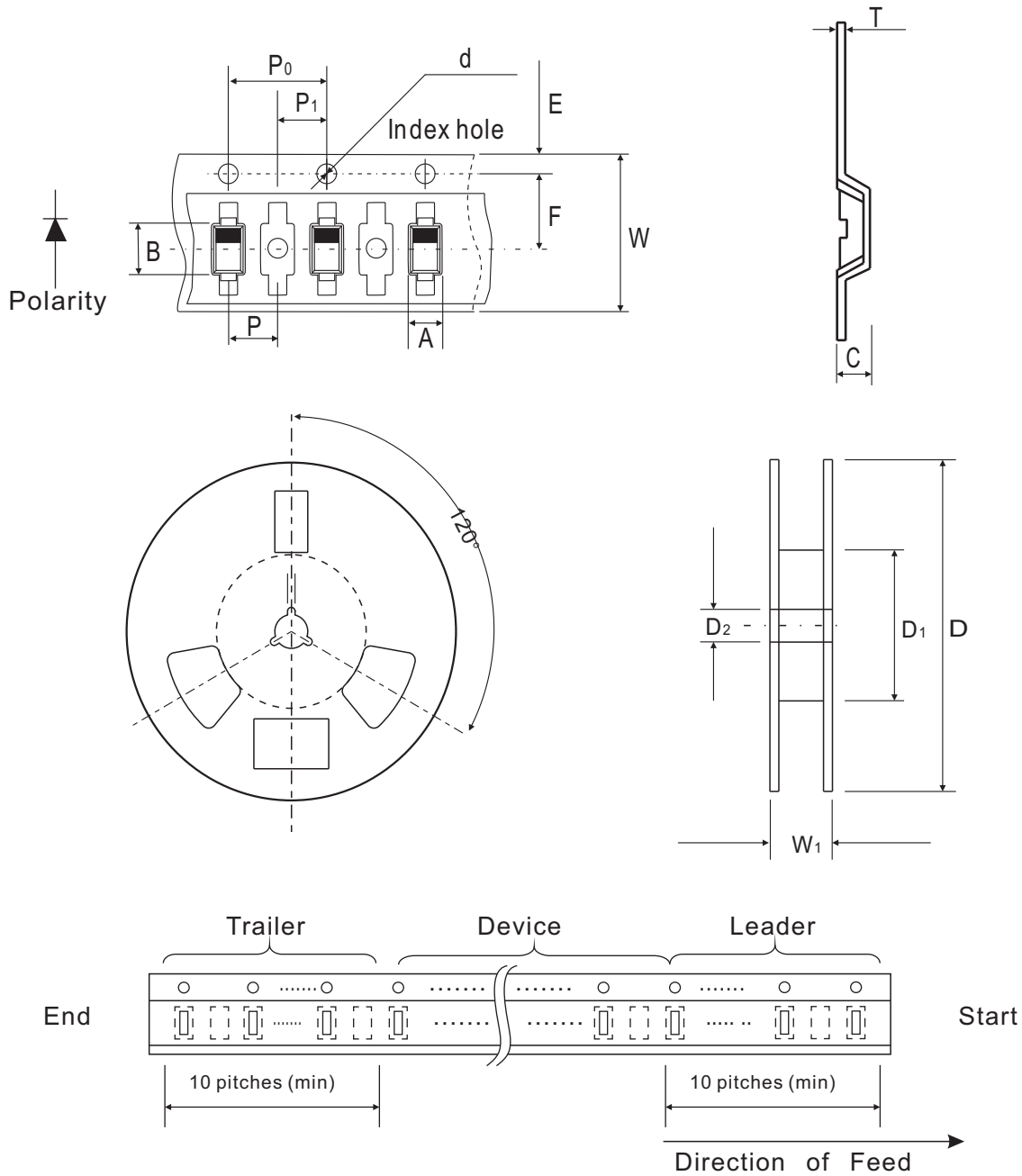


Fig.6 - Surge Current Characteristics



Reel Taping Specification

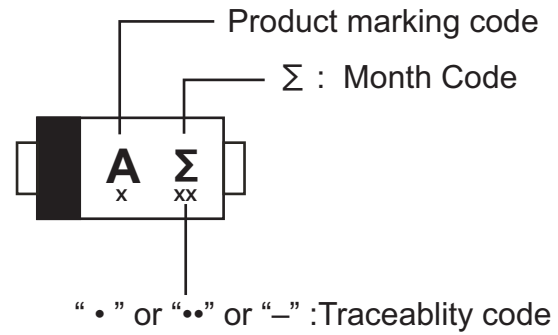


| SOD-523 | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|---------|--------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| | (mm) | 0.90 ± 0.10 | 1.94 ± 0.10 | 0.73 ± 0.10 | 1.50 ± 0.10 | 178 ± 1.00 | 54.40 ± 0.40 | 13.00 ± 0.20 |
| | (inch) | 0.035 ± 0.004 | 0.076 ± 0.004 | 0.029 ± 0.004 | 0.059 ± 0.004 | 7.008 ± 0.039 | 2.142 ± 0.016 | 0.512 ± 0.008 |

| SOD-523 | SYMBOL | E | F | P | P ₀ | P ₁ | W | W ₁ |
|---------|--------|---------------|---------------|---------------|----------------|----------------|-------------------------|----------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 2.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 8.00 + 0.30 / - 0.10 | 9.50 ± 1.00 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.079 ± 0.004 | 0.158 ± 0.004 | 0.079 ± 0.004 | 0.315 + 0.012 / - 0.004 | 0.374 ± 0.039 |

Marking Code

| Part Number | Marking Code | |
|-------------|--------------|-----|
| 1SS400-G | A | A Σ |



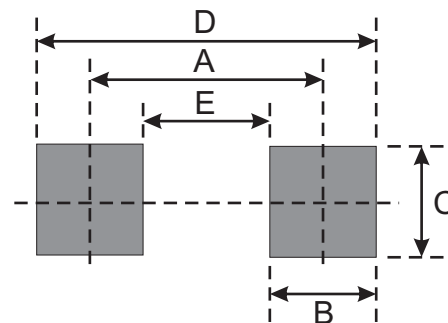
Month Code:

| Month | Odd Year (per A.D.) | Even Year (per A.D.) |
|-------|---------------------|----------------------|
| Jan | 1 | E |
| Feb | 2 | F |
| Mar | 3 | H |
| Apr | 4 | J |
| May | 5 | K |
| Jun | 6 | L |

| Month | Odd Year (per A.D.) | Even Year (per A.D.) |
|-------|---------------------|----------------------|
| Jul | 7 | N |
| Aug | 8 | P |
| Sep | 9 | U |
| Oct | T | X |
| Nov | V | Y |
| Dec | C | Z |

Suggested PAD Layout

| SIZE | SOD-523 | |
|------|---------|--------|
| | (mm) | (inch) |
| A | 1.32 | 0.052 |
| B | 0.48 | 0.019 |
| C | 0.40 | 0.016 |
| D | 1.80 | 0.071 |
| E | 0.84 | 0.033 |



Standard Packaging

| Case Type | REEL PACK | |
|-----------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| SOD-523 | 3,000 | 7 |
| | 8,000 | 7 |