

High Speed Switching Diode

FEATURES

- * Small surface mounting type
- * High speed
- * High reliability with high surge current handing capability

MARKING: 7

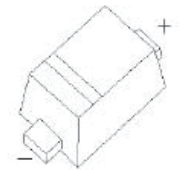


The marking bar indicates the cathode

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, resistive or inductive load.

SOD-723



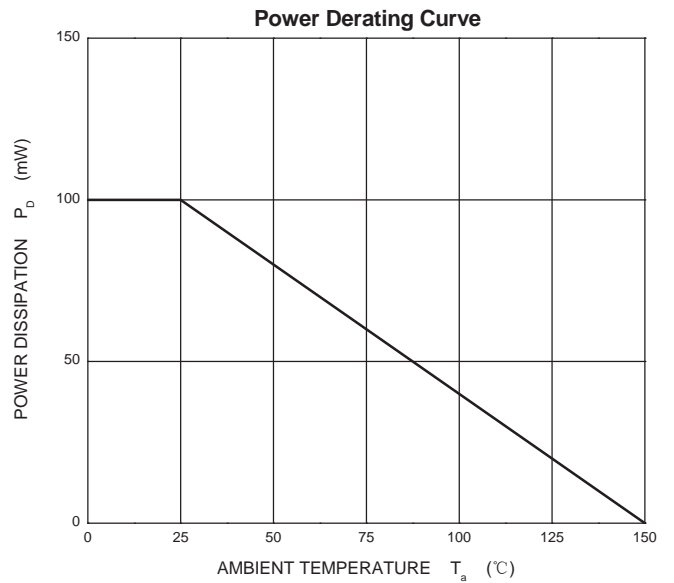
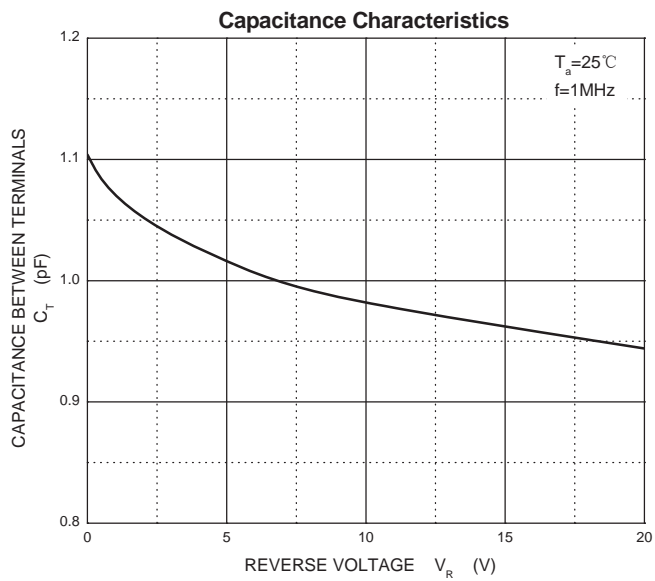
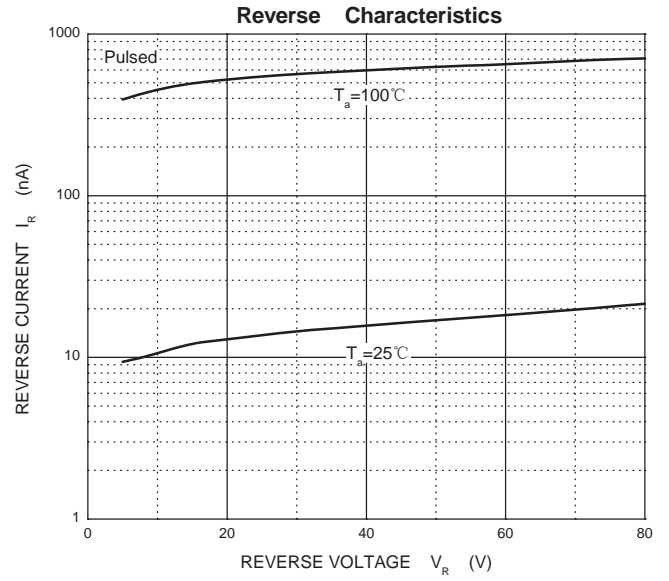
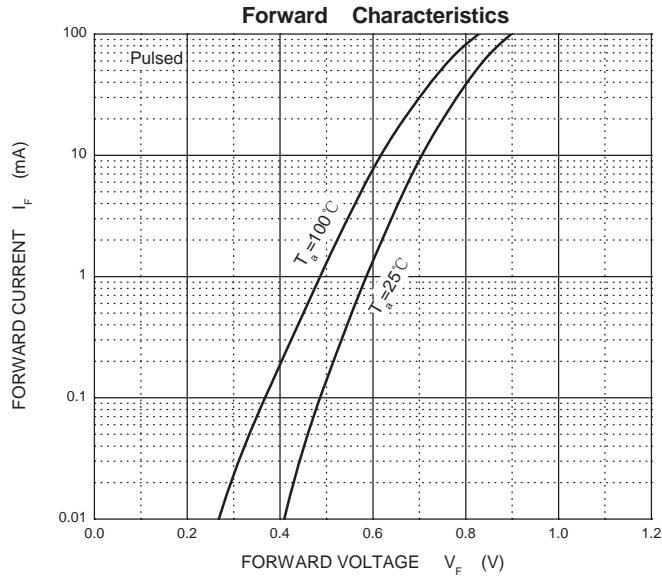
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

| Parameter | Symbol | Limit | Unit |
|--|-----------------|----------|------------------|
| Non-Repetitive Peak Reverse Voltage | V_{RM} | 90 | V |
| DC Blocking Voltage | V_R | 80 | V |
| Forward Continuous Current | I_{FM} | 225 | mA |
| Average Rectified Output Current | I_O | 100 | mA |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | I_{FSM} | 2.0 | A |
| Typical Current Square Time | i^2T | 0.02 | A ² s |
| Power Dissipation | P_d | 100 | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 1250 | °C/W |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature | T_{STG} | -55~+150 | °C |

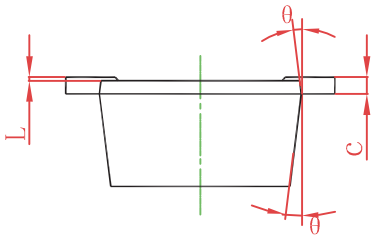
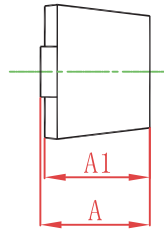
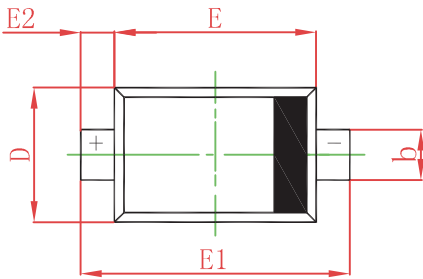
Electrical Ratings @Ta=25°C

| Parameter | Symbol | Min | Typ | Max | Unit | Conditions |
|-------------------------------|----------|-----|-----|-----|------|-----------------------------------|
| Forward voltage | V_F | | | 1.2 | V | $I_F=100mA$ |
| Reverse current | I_R | | | 0.1 | μA | $V_R=80V$ |
| Capacitance between terminals | C_T | | | 3.0 | pF | $V_R=0.5V, f=1MHZ$ |
| Reverse recovery time | t_{rr} | | | 4 | ns | $V_R=6V, I_F=10mA, R_L=100\Omega$ |

RATING AND CHARACTERISTICS CURVES (1SS400G)

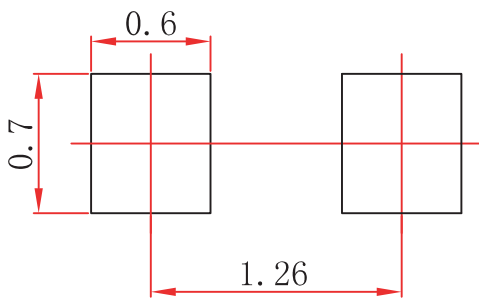


SOD-723 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.525 | 0.650 | 0.021 | 0.026 |
| A1 | 0.515 | 0.580 | 0.020 | 0.023 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 0.550 | 0.650 | 0.022 | 0.026 |
| E | 0.900 | 1.100 | 0.035 | 0.043 |
| E1 | 1.300 | 1.500 | 0.051 | 0.059 |
| E2 | 0.200 REF | | 0.008 REF | |
| L | 0.010 | 0.070 | 0.001 | 0.003 |
| θ | 7° REF | | 7° REF | |

SOD-723 Suggested Pad Layout

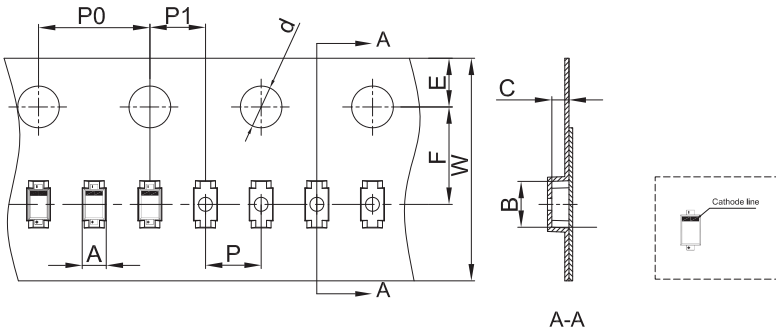


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

SOD-723 Tape and Reel

SOD-723 Embossed Carrier Tape



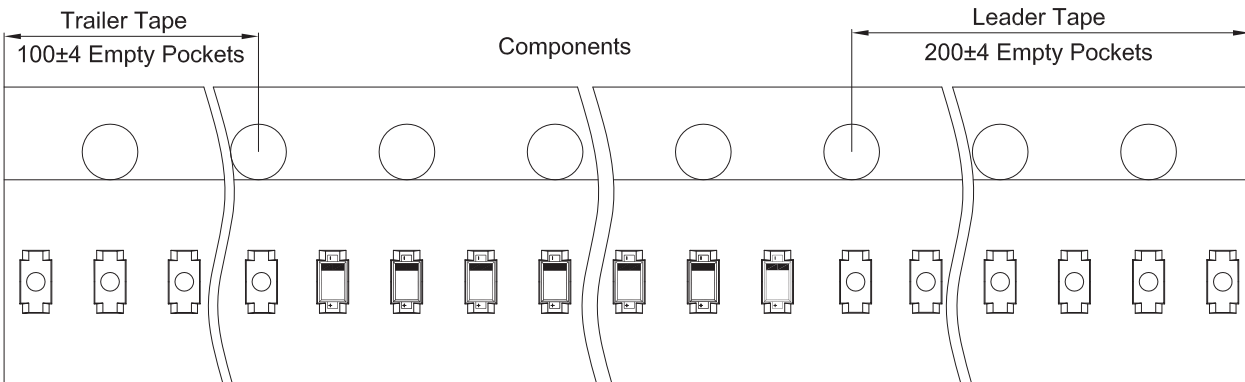
Packaging Description:

SOD-723 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 8,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

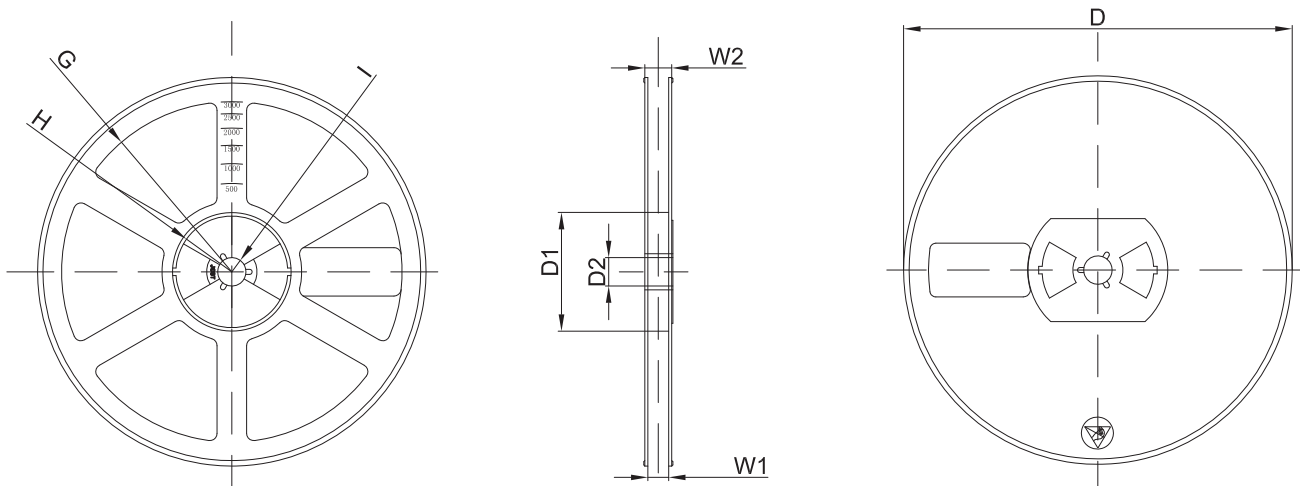
Note: If it is the product of the same polarity, the cathode line should be removed.

| Dimensions are in millimeter | | | | | | | | | | |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| Pkg type | A | B | C | d | E | F | P0 | P | P1 | W |
| SOD-723 | 0.73 | 1.71 | 0.62 | Ø1.50 | 1.75 | 3.50 | 4.00 | 2.00 | 2.00 | 8.00 |

SOD-723 Tape Leader and Trailer



SOD-723 Reel



| Dimensions are in millimeter | | | | | | | | |
|------------------------------|-----------|-------------|--------------|-------------|-----------------|----------|------|-------|
| Reel Option | D | D1 | D2 | G | H | I | W1 | W2 |
| 7" Dia | Ø178.00 | 54.40 | 13.00 | R78.00 | R25.60 | R6.50 | 9.50 | 12.30 |
| REEL | Reel Size | Box | Box Size(mm) | Carton | Carton Size(mm) | G.W.(kg) | | |
| 8000 pcs | 7 inch | 120,000 pcs | 203×203×195 | 480,000 pcs | 438×438×220 | | | |

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