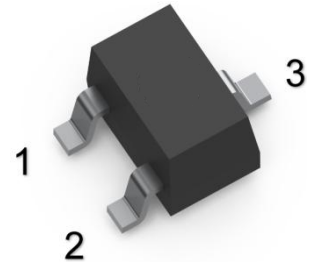
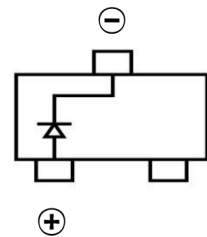


SWITCHING DIODE
FEATURES

- Fast Switching
- High Conductance
- Surface Mount device
- For General Purpose Switching Applications


SOT-323
MECHANICAL DATA

- Case: SOT-323
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.008 grams (approximate)


Marking: A2
MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

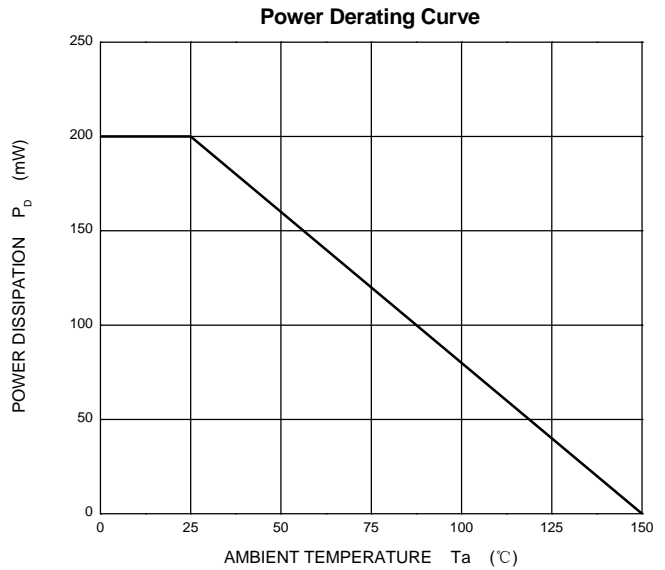
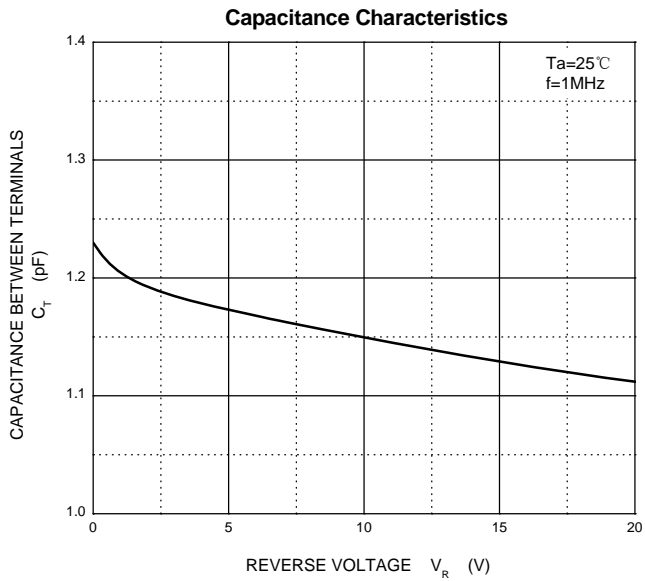
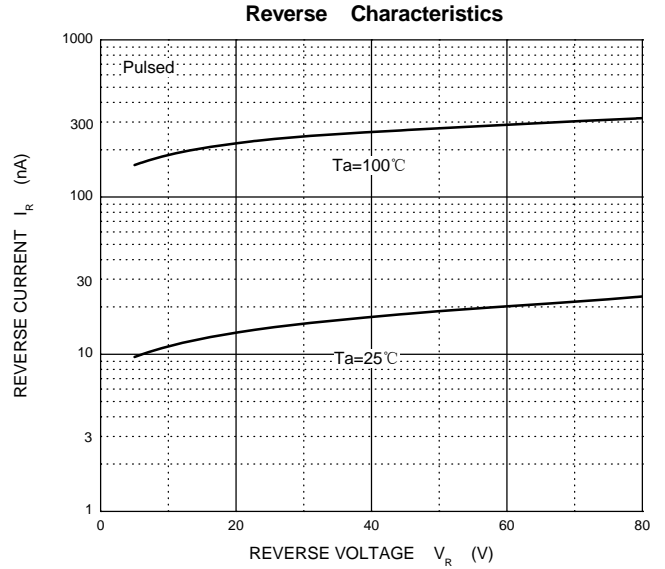
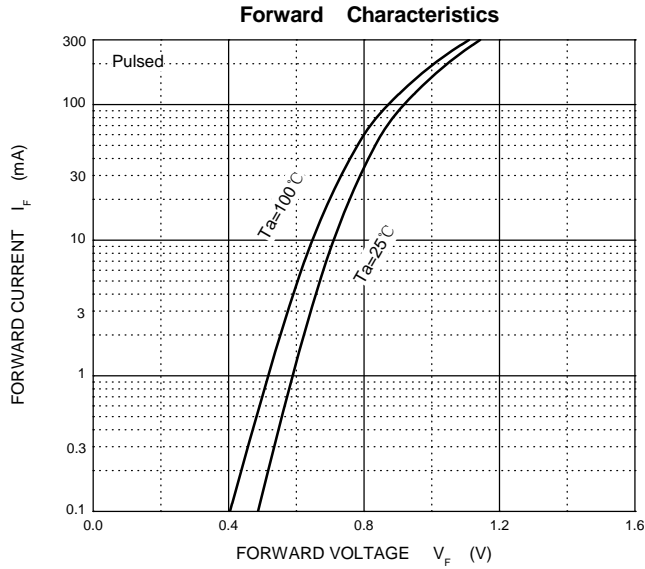
| Parameter | Symbol | Value | Unit |
|---|---------------------|-----------|------|
| Non-Repetitive Peak Reverse Voltage | V _{RM} | 100 | V |
| DC Blocking Reverse Voltage | V _R | 75 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 53 | V |
| Forward Current | I _F | 300 | mA |
| Average Rectified Output Current | I _O | 150 | mA |
| Non-Repetitive Peak Forward Surge Current @t@=8.3ms | I _{FSM} | 2.0 | A |
| Power Dissipation | P _D | 200 | mW |
| Thermal Resistance From Junction To Ambient | R _{θJA} | 625 | °C/W |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature | T _{STG} | -55 ~+150 | °C |

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

| Parameter | Symbol | Min | Max | Unit | Conditions |
|---------------------------------|-----------------|-----|-----|------|---|
| Reverse voltage | V _R | 75 | | V | I _R =0.010mA |
| Forward voltage | V _F | | 1 | V | I _F =50mA |
| Reverse voltage leakage current | I _R | | 1 | uA | V _R =75V |
| Diode capacitance | C _D | | 2 | pF | V _R =0V, f=1MHz |
| Reverse recovery time | T _{rr} | | 4 | nS | I _F =I _R =10mA I _{rr} =0.1×I _R R _L =100Ω |

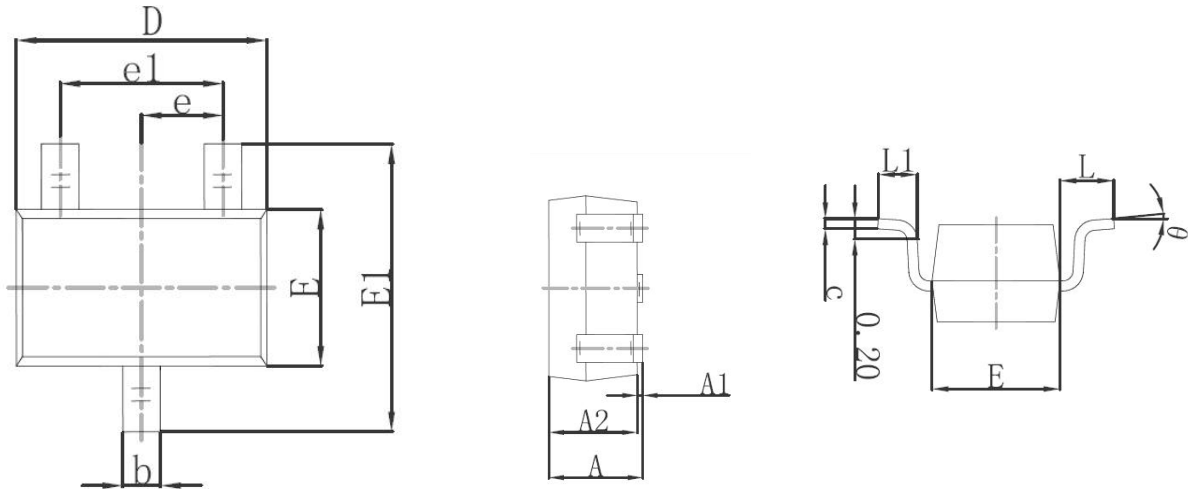
SWITCHING DIODE

Typical Characteristics



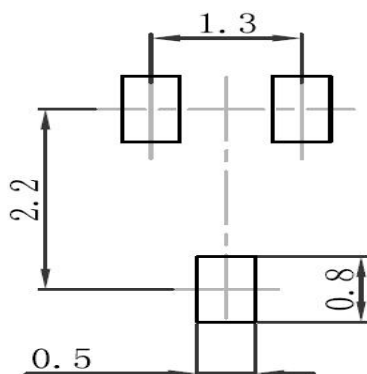
SWITCHING DIODE

SOT-323 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.900 | 1.100 | 0.035 | 0.043 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.000 | 0.035 | 0.039 |
| b | 0.200 | 0.400 | 0.008 | 0.016 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.000 | 2.200 | 0.079 | 0.087 |
| E | 1.150 | 1.350 | 0.045 | 0.053 |
| E1 | 2.150 | 2.450 | 0.085 | 0.096 |
| e | 0.650TYP | | 0.026TYP | |
| e1 | 1.200 | 1.400 | 0.047 | 0.055 |
| L | 0.525REF | | 0.021REF | |
| L1 | 0.260 | 0.460 | 0.010 | 0.018 |
| θ | 0° | 8° | 0° | 8° |

SOT-323 Suggested Pad Layout



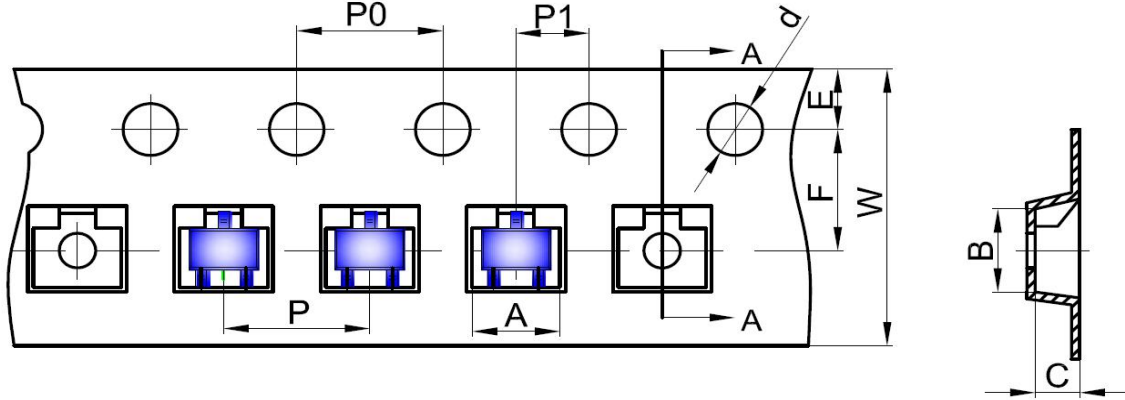
Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

SWITCHING DIODE

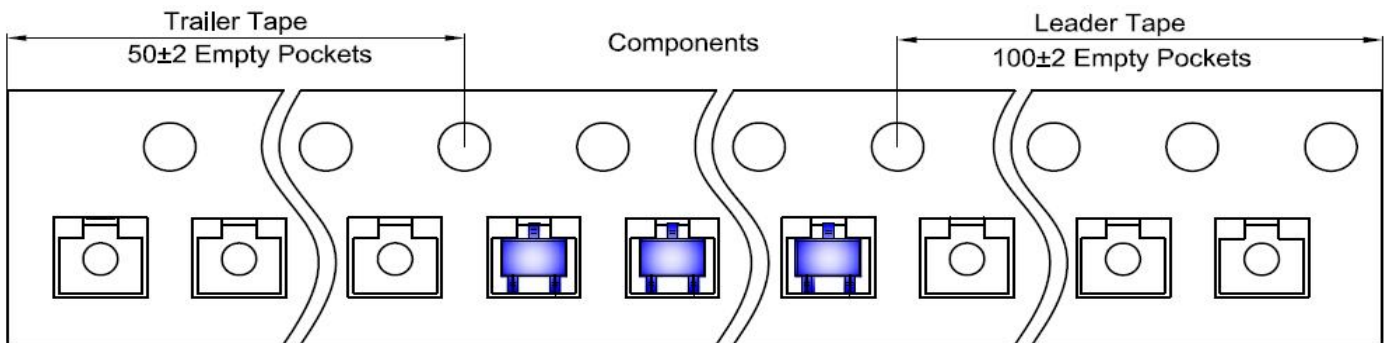
SOT-323 Tape and Reel

SOT-323 Embossed Carrier Tape

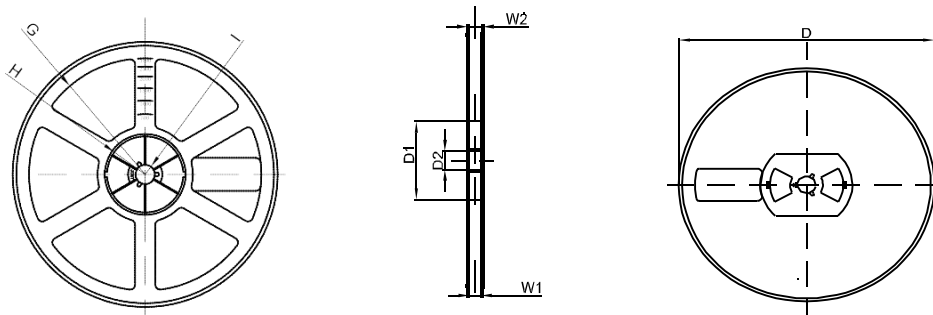


| DIMENSIONS ARE IN MILLIMETER | | | | | | | | | | |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| TYPE | A | B | C | d | E | F | P0 | P | P1 | W |
| SOT-323 | 2.25 | 2.55 | 1.19 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |
| TOLERANCE | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 |

SOT-323 Tape Leader and Trailer



SOT-323 Reel



| DIMENSIONS ARE IN MILLIMETER | | | | | | | | |
|------------------------------|------|-------|-------|-----|--------|-------|------|-------|
| REEL OPTION | D | D1 | D2 | G | H | I | W1 | W2 |
| 7" DIA | Ø178 | 54.40 | 13.00 | R78 | R25.60 | R6.50 | 9.50 | 12.30 |
| TOLERANCE | ±2 | ±1 | ±1 | ±1 | ±1 | ±1 | ±1 | ±1 |