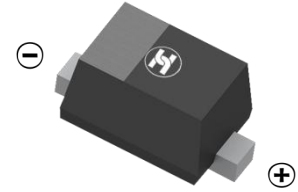
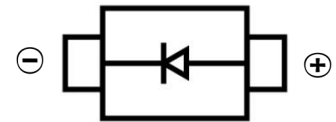


SCHOTTKY BARRIER DIODE
FEATURES

- Low Forward Voltage
- Low Reverse current
- Low capacitance between terminals
- Small Surface Mount device


SOD-523
MECHANICAL DATA

- Case: SOD-523
- Case Material: Molded Plastic. UL Iammability
- Classification Rating: 94V-0
- Weight: 0.0015 grams (approximate)
- Marking:5


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

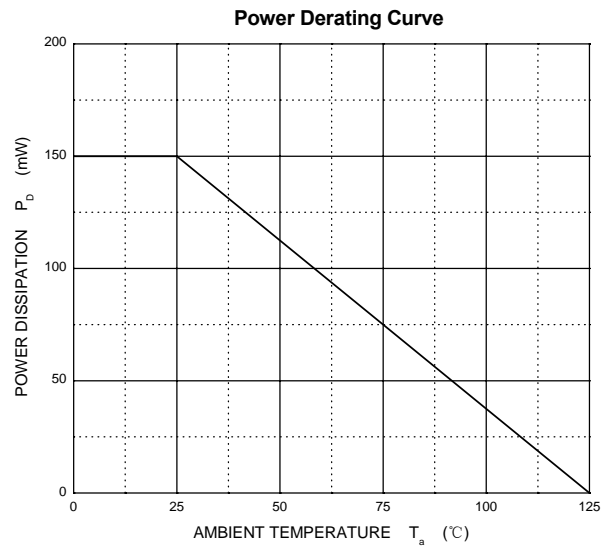
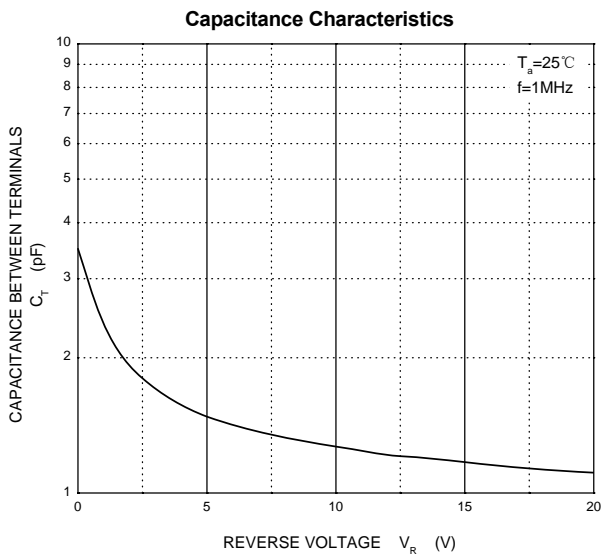
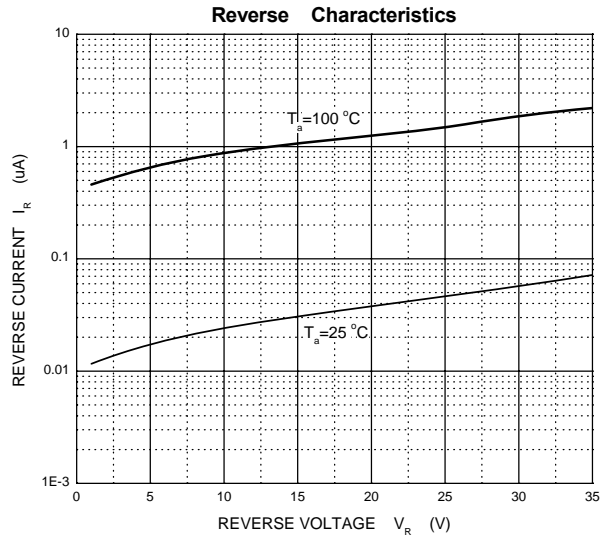
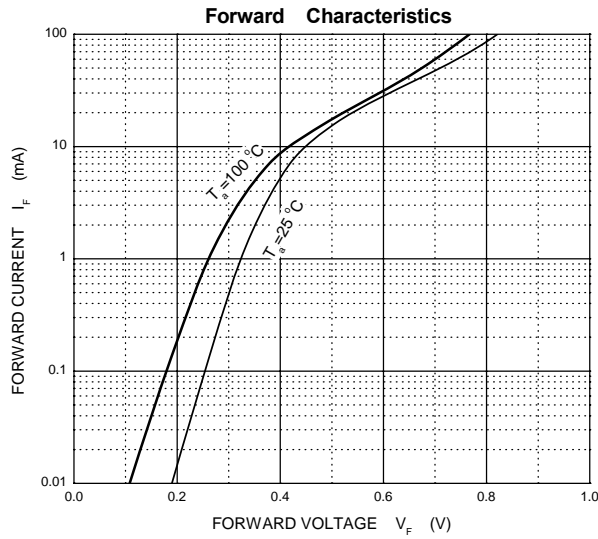
| Parameter | Symbol | Value | Unit |
|--|------------------|-----------|------|
| Peak reverse voltage | V _{RM} | 40 | V |
| DC Reverse Voltage | V _R | 30 | V |
| Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms | I _{FSM} | 200 | mA |
| Mean rectifying current | I _O | 30 | mA |
| Power Dissipation | P _D | 150 | mW |
| Thermal Resistance From Junction To Ambient | R _{θJA} | 667 | °C/W |
| Junction Temperature | T _J | 125 | °C |
| Storage Temperature | T _{STG} | -55 ~+150 | °C |

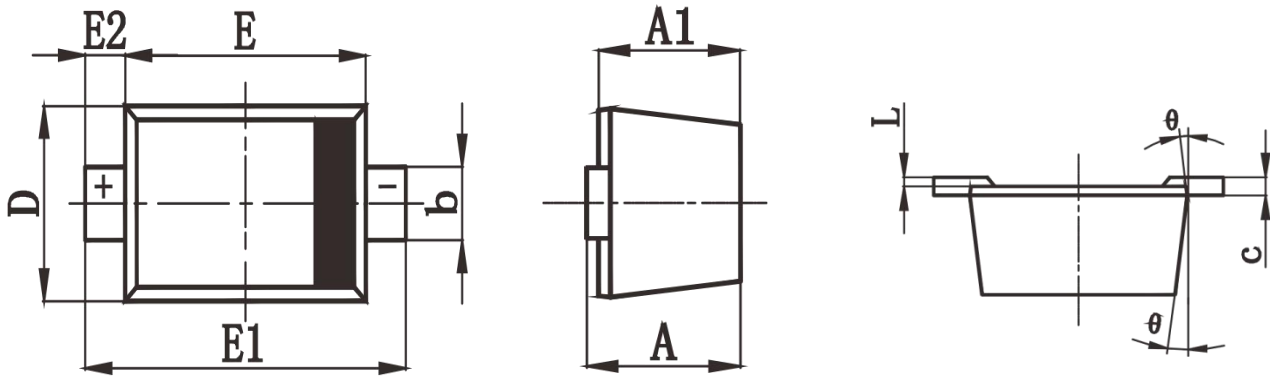
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

| Parameter | Symbol | Min | Typ | Max | Unit | Conditions |
|---------------------------------|----------------|-----|-----|------|------|---------------------------|
| Forward voltage | V _F | | | 0.37 | V | I _F =1mA |
| Reverse voltage leakage current | I _R | | | 0.5 | uA | V _R =30V |
| Capacitance between terminals | C _T | | 2 | | pF | V _R =1V,f=1MHz |

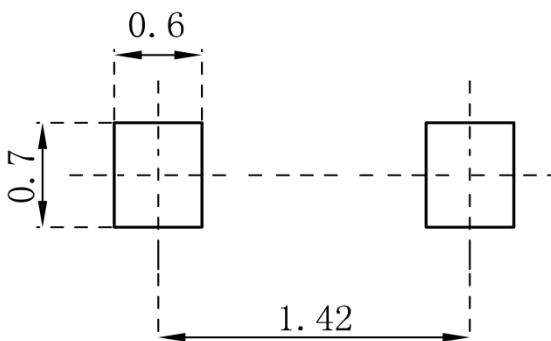
SCHOTTKY BARRIER DIODE

Typical Characteristics

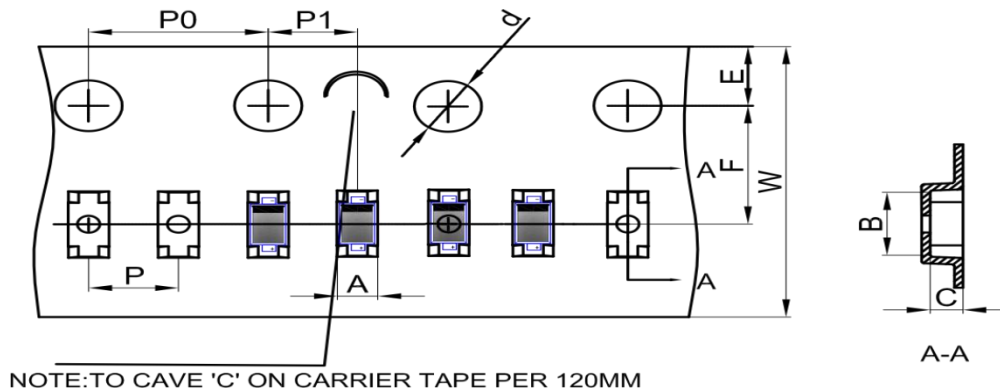


SCHOTTKY BARRIER DIODE
SOD-523 Package Outline Dimensions


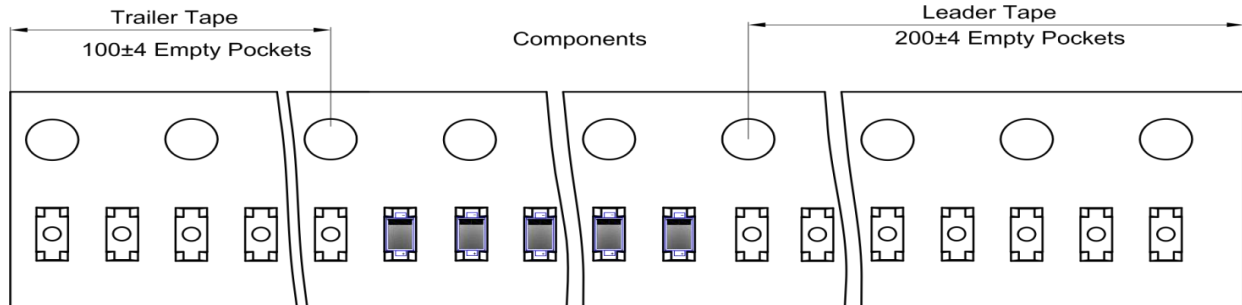
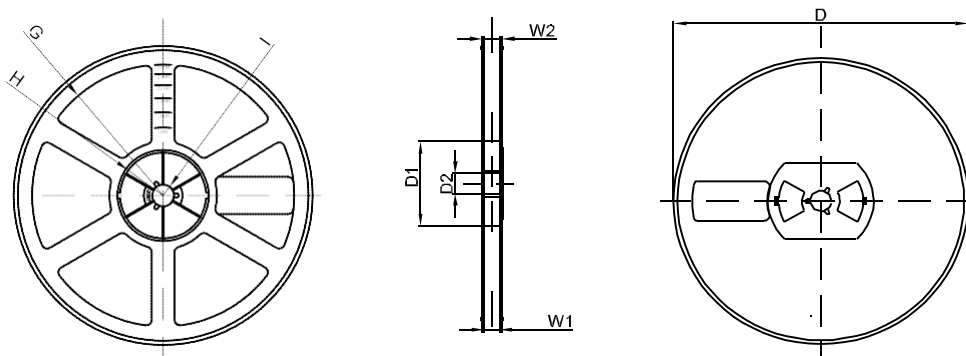
| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.510 | 0.770 | 0.020 | 0.031 |
| A1 | 0.010 | 0.070 | 0.001 | 0.003 |
| A2 | 0.500 | 0.700 | 0.020 | 0.028 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 0.750 | 0.850 | 0.030 | 0.033 |
| E | 1.100 | 1.300 | 0.043 | 0.051 |
| E1 | 1.500 | 1.700 | 0.059 | 0.067 |
| L | 0.200 REF | | 0.008 REF | |
| L1 | 0.250 | 0.400 | 0.010 | 0.016 |
| θ | 0° | 8° | 0° | 8° |

SOD-523 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

SCHOTTKY BARRIER DIODE
SOD-523 Tape and Reel
SOD-523 Embossed Carrier Tape


| DIMENSIONS ARE IN MILLIMETER | | | | | | | | | | |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| TYPE | A | B | C | d | E | F | P0 | P | P1 | W |
| SOD-523 | 0.90 | 1.94 | 0.73 | Ø1.50 | 1.75 | 3.50 | 4.00 | 2.00 | 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 |

SOD-523 Tape Leader and Trailer

SOD-523 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 |