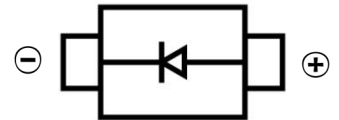


**SCHOTTKY BARRIER DIODE**
**FEATURES**

- Low Forward Voltage
- Low Reverse voltage leakage current
- Small Surface Mount device
- For Low Current Rectifier Circuits Applications


**SOD-523**
**MECHANICAL DATA**

- Case: SOD-523
- Case Material: Molded Plastic. UL Iammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.0015 grams (approximate)


**MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)**

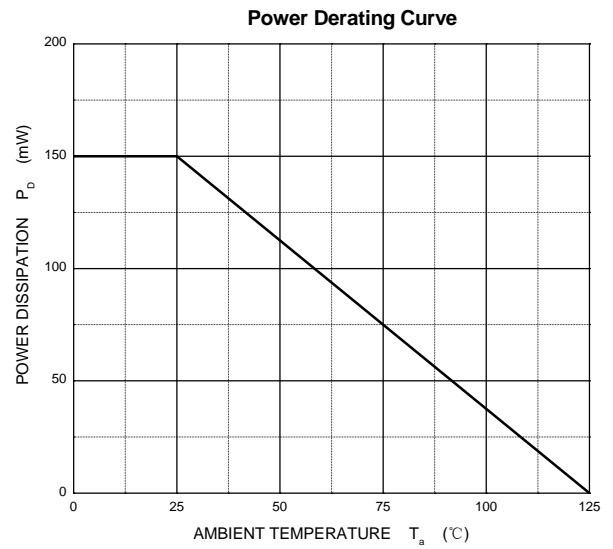
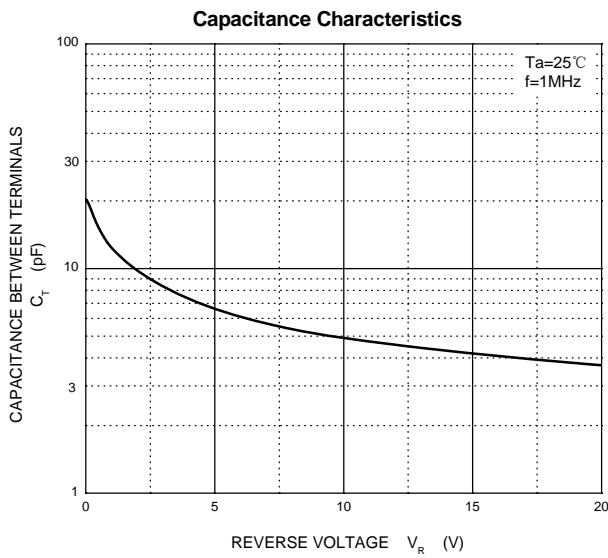
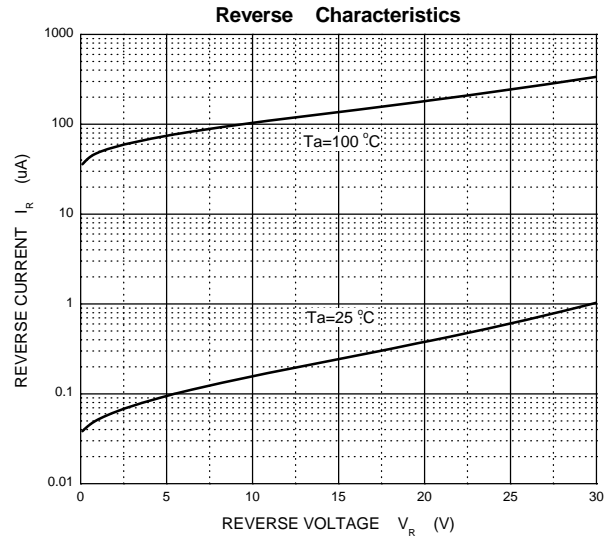
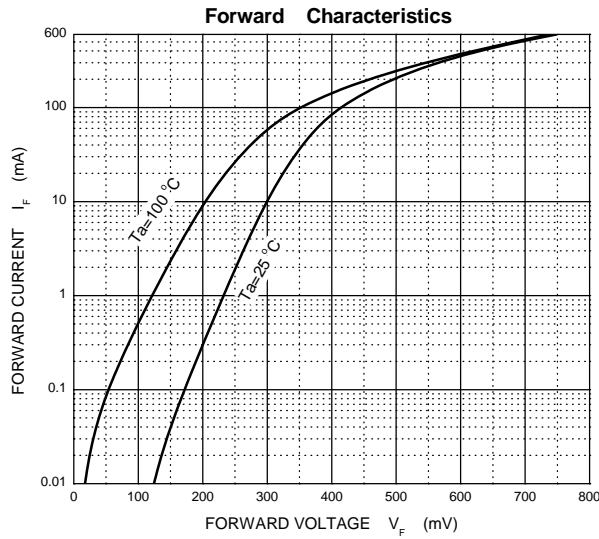
| Parameter  | Symbol           | Value     | Unit |
|--|------------------|-----------|------|
| Reverse Voltage  | V <sub>R</sub>   | 30        | V    |
| Non-Repetitive Peak Forward Surge Current @ t = 8.3 ms | I <sub>FSM</sub> | 1         | A    |
| Mean rectifying current                                | I <sub>o</sub>   | 200       | mA   |
| Power Dissipation                                      | P <sub>D</sub>   | 150       | mW   |
| Thermal Resistance From Junction To Ambient            | R <sub>θJA</sub> | 667       | °C/W |
| Junction Temperature                                   | T <sub>J</sub>   | 125       | °C   |
| Storage Temperature                                    | T <sub>STG</sub> | -55 ~+150 | °C   |

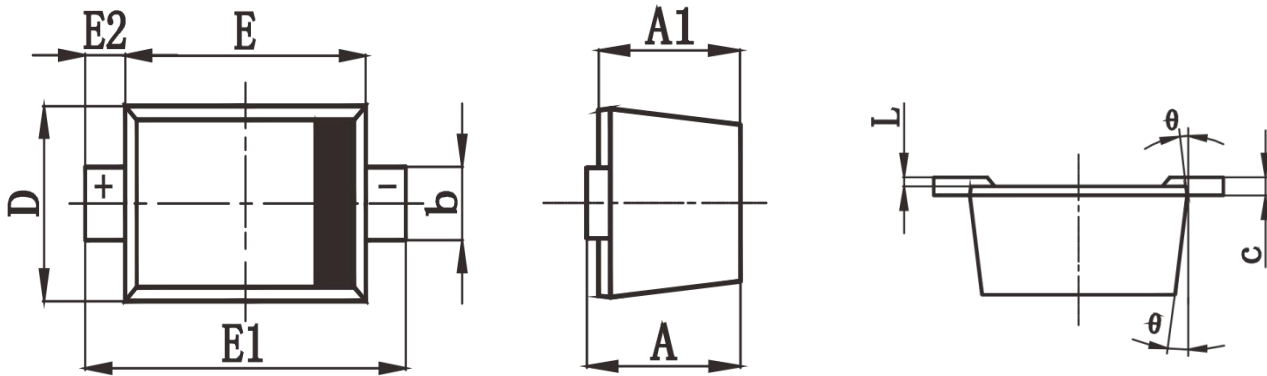
**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

| Parameter                       | Symbol         | Min | Max  | Unit | Conditions            |
|---------------------------------|----------------|-----|------|------|-----------------------|
| Forward voltage                 | V <sub>F</sub> |     | 0.60 | V    | I <sub>F</sub> =200mA |
| Reverse voltage leakage current | I <sub>R</sub> |     | 1    | uA   | V <sub>R</sub> =10V   |

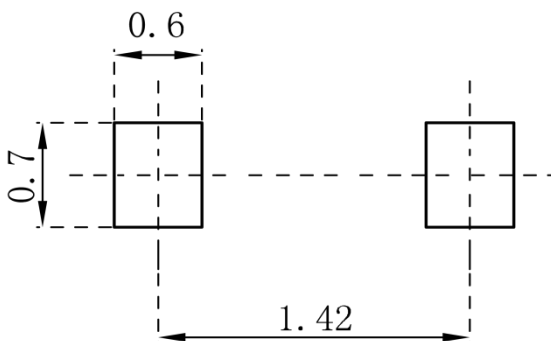
SCHOTTKY BARRIER DIODE

Typical Characteristics

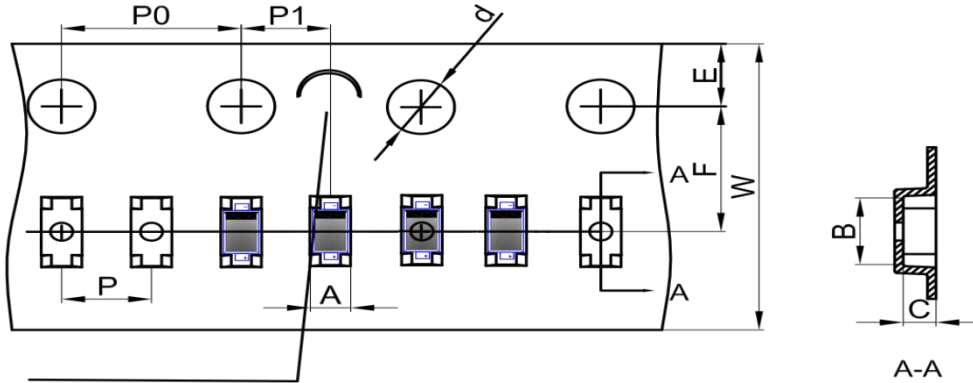


**SCHOTTKY BARRIER DIODE**
**SOD-523 Package Outline Dimensions**


| 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 |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |

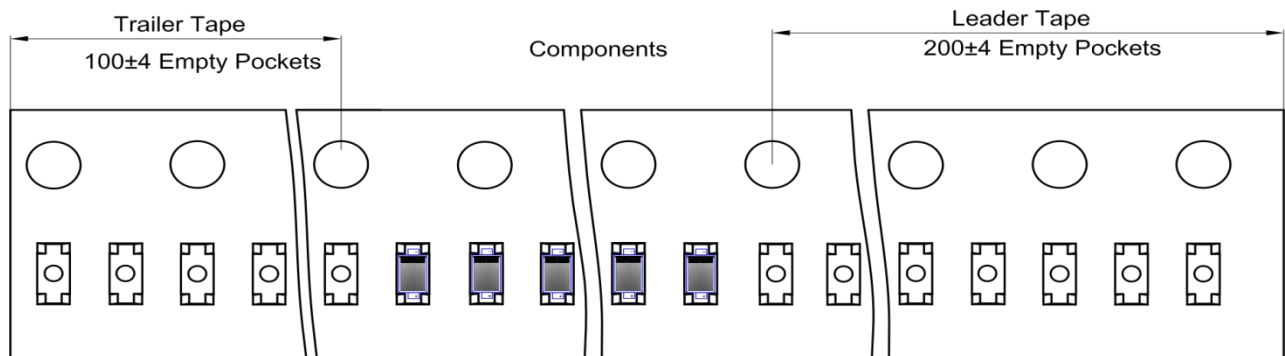
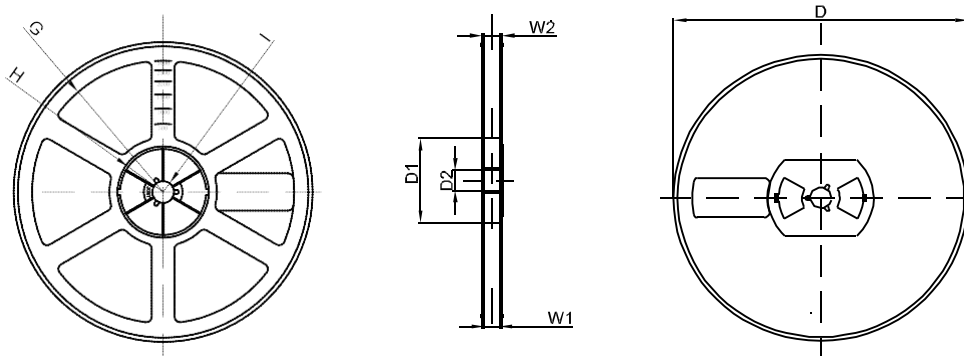
**SOD-523 Suggested Pad Layout**

**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**


NOTE: TO CAVE 'C' ON CARRIER TAPE PER 120MM

| 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    |