BORN SEMICONDUCTOR

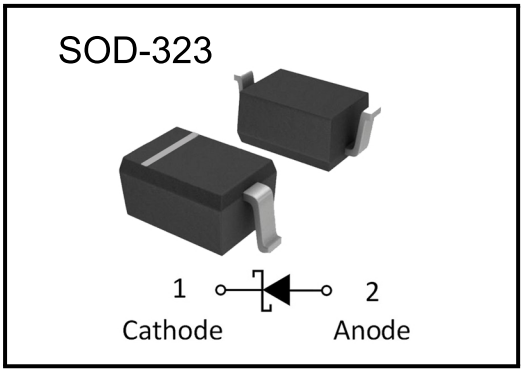
# 1SS357

**Schottky Barrier Diode**

## Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

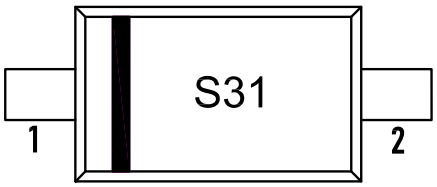
## Package




## General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SOD-323 PlasticPackage

## Marking




## Ordering information

| Order code | Package | Marking | Base qty | Delivery mode |
|---|---|---|---|---|
| 1SS357 | SOD-323 | S31 | 3K | Tape and reel |

## Maximum Ratings@$T_A$=25°C unless otherwise noted

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_{RRM}$ | Recurrent Peak Reverse Voltage | 45 | V |
| $V_R$ | DC Blocking Voltage | 40 | V |
| $I_{F(AV)}$ | Maximum average forward Rectified Current | 100 | mA |
| $I_{FSM}$ | Non-repetitive peak forward surge current 8.3 ms singlehalf sine-wave | 1 | A |
| $P_d$ | Power Dissipation | 200 | mW |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 500 | °C/W |
| $T_J$ | Operation Junction Temperature Range | -40 to +125 | °C |
| $T_{STG}$ | Storage Temperature Range | -55 to +150 | °C |

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# 1SS357

**Schottky Barrier Diode**

**Electrical Characteristics@$T_A$=25°C unless otherwisenoted**

| Symbol | Parameter | Test conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| $I_R$ | Reverse current | $V_R$=40V | – | – | 5.0 | μA |
| $V_F$ | Forward voltage | $I_F$=1mA | – | – | 0.35 | V |
| | | $I_F$=10mA | – | – | 0.45 | V |
| | | $I_F$=100mA | – | – | 0.6 | V |
| $c_F$ | Capacitance between terminals | $V_R$=0V,f=1.0MHz | – | – | 25 | pF |

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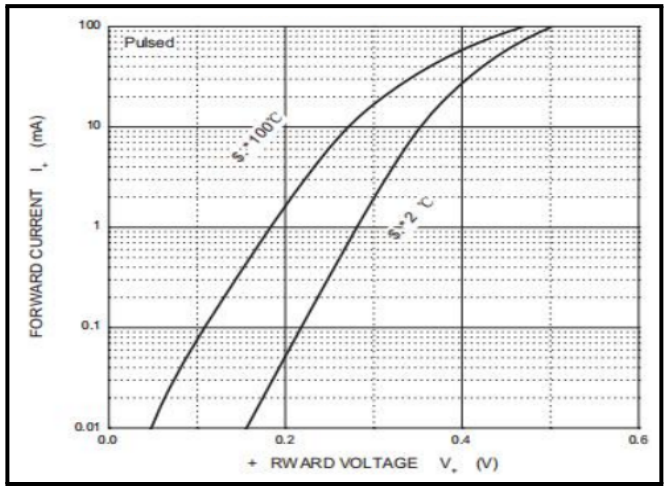
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# 1SS357

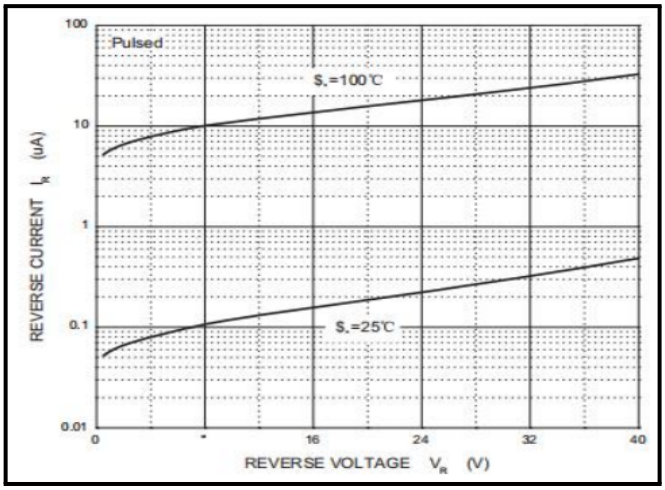
Schottky Barrier Diode

## Typical Performance Characteristics($T_J$ = 25°C, unless otherwise noted)

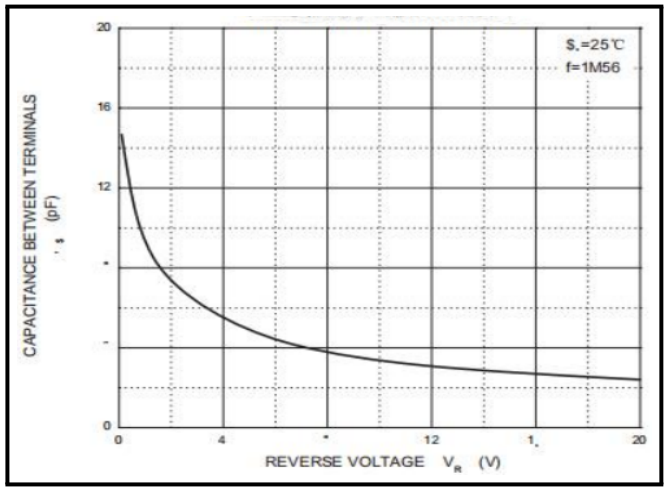
### Figure 1:Forword Characteristics



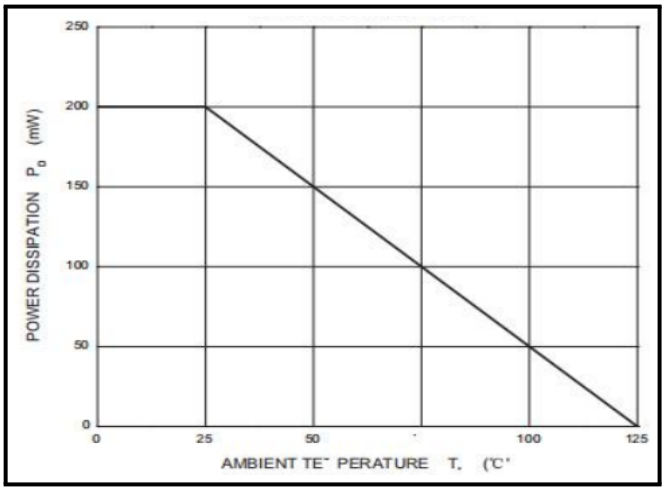

### Figure 2:Reverse Characteristics




### Figure 3:Capacitance Characteristics




### Figure 4:Power Derating Curve




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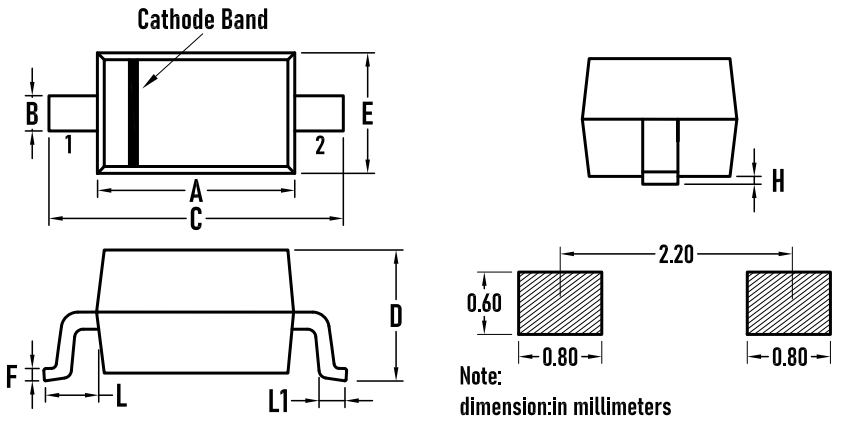
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# 1SS357

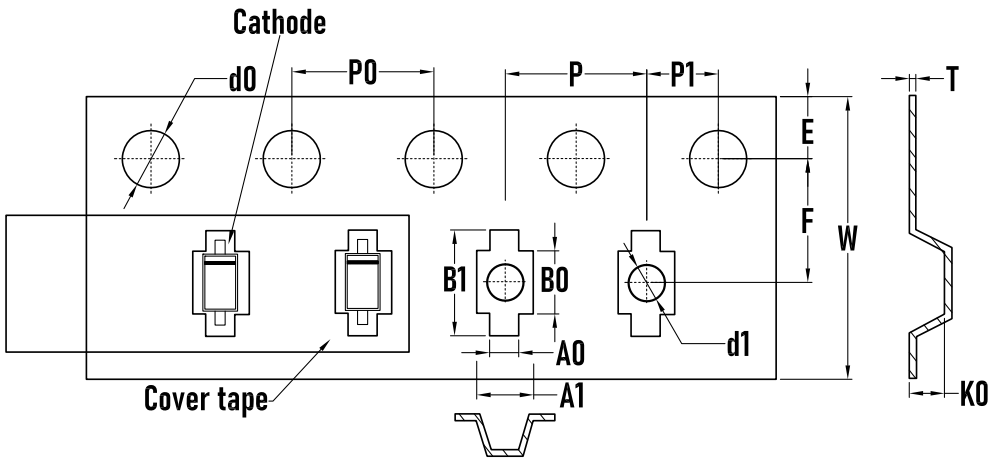
**Schottky Barrier Diode**

## Outline Drawing - SOD-323



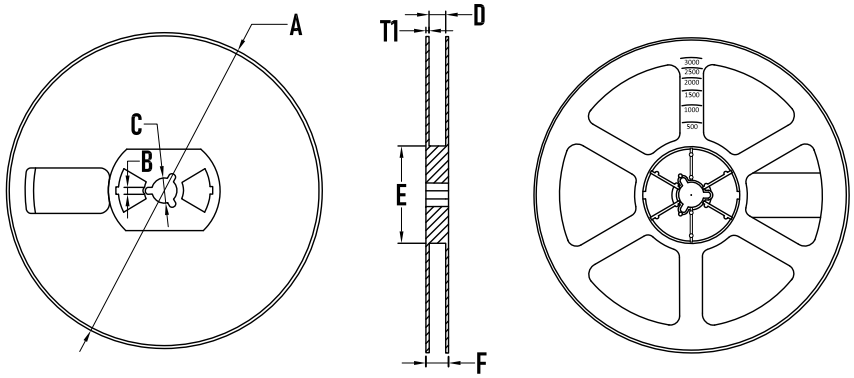

| SYMBOL | MILLIMETER | | INCHES | |
|---|---|---|---|---|
| | MIN. | MAX. | MIN. | MAX. |
| A | 1.600 | 1.800 | 0.063 | 0.071 |
| B | 0.250 | 0.350 | 0.010 | 0.014 |
| C | 2.400 | 2.800 | 0.094 | 0.110 |
| D | – | 1.100 | – | 0.043 |
| E | 1.100 | 1.500 | 0.043 | 0.059 |
| F | 0.080 | 0.150 | 0.003 | 0.006 |
| L | 0.475REF | | 0.019REF | |
| L1 | 0.250 | 0.400 | 0.010 | 0.016 |
| H | 0.000 | 0.100 | 0.000 | 0.004 |

## Packaging Tape - SOD-323




| SYMBOL | MILLIMETER |
|---|---|
| A0 | 0.80±0.10 |
| A1 | 1.48±0.10 |
| B0 | 1.80±0.10 |
| B1 | 3.00±0.10 |
| d0 | 1.55±0.10 |
| d1 | 1.00±0.05 |
| E | 1.75±0.10 |
| F | 3.50±0.10 |
| K0 | 1.05±0.10 |
| P | 4.00±0.10 |
| P0 | 4.00±0.10 |
| P1 | 2.00±0.10 |
| W | 8.00±0.30 |
| T | 0.25 ±0.05 |

## Packaging Reel




| SYMBOL | MILLIMETER |
|---|---|
| A | 177.8±0.2 |
| B | 2.7±0.2 |
| C | 13.5±0.2 |
| D | 9.6±0.3 |
| E | 54.5±0.2 |
| F | 12.3±0.3 |
| T1 | 1.0±0.2 |
| Quantity | 3000PCS |

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