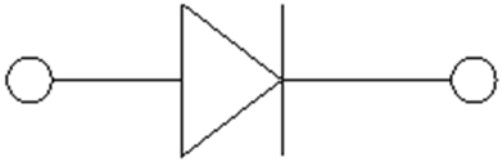
# Schottky Barrier Rectifier



## Features

- $V_R$ 40V
- $I_F$ 200mA

## Typical Applications

- Low Forward Voltage Drop

## Mechanical Data

- **Package**: SOD-323
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** 43

## ■Maximum Ratings (Ta=25°C Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|---|---|---|---|---|
| Repetitive peak reverse voltage | $V_{RRM}$ | V | | 40 |
| Reverse voltage | $V_R$ | V | $I_R$=10uA | 40 |
| Average forward current | $I_F$ | mA | | 200 |
| Power Dissipation | $P_D$ | mW | | 200 |
| Repetitive Peak Forward Current | $I_{FRM}$ | A | tp=1ms，δ=0.25 | 1 |
| Maximum junction temperature | $T_j$ | °C | | 125 |
| Storage temperature range | $T_{stg}$ | °C | | -55 to +150 |

## ■Electrical Characteristics（Ta=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | Conditions | Min | Max |
|---|---|---|---|---|---|
| Forward voltage | $V_{F1}$ | V | $I_F$=1mA, | - | 0.38 |
| | $V_{F2}$ | V | $I_F$=40mA, | - | 1 |
| Reverse current | $I_R$ | nA | $V_R$=30V | - | 200 |
| Breakdown voltage | $V_{(BR)}$ | V | $I_R$=10uA | 40 | - |
| Diode capacitance | $C_D$ | pF | $V_R$=0V, f =1MHz | | 5 |
| Reverse Recovery Time | $T_{RR}$ | ns | $I_F$=$I_R$=10mA,$R_L$=100Ω,$I_R$=1mA | | 5 |

## ■Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| BAS40WS | F2 | Approximate 0.0048 | 3000 | 30000 | 120000 | 7" reel |

## ■ Characteristics (Typical)

**Fig 1：$P_D$-Ta Curve**

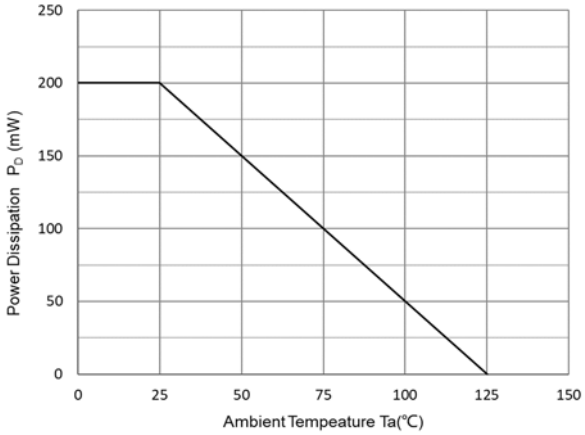



**Fig 2：Capacitance Capability**

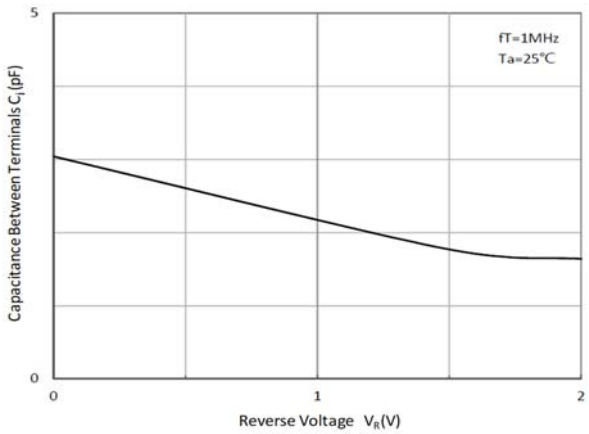



**Fig 3：Typical Forward Characteristics**

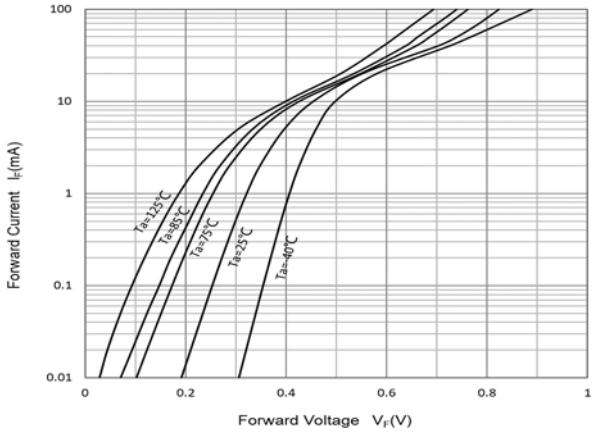
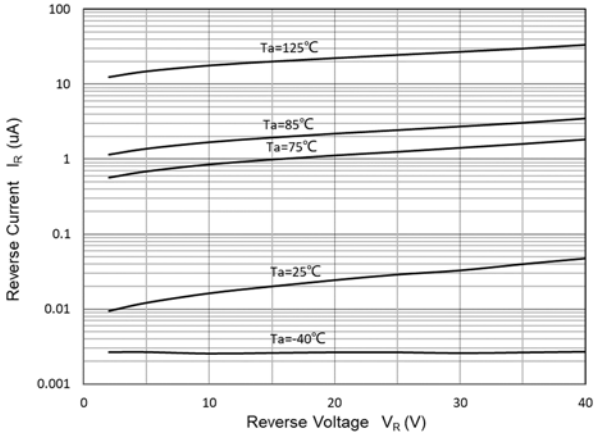
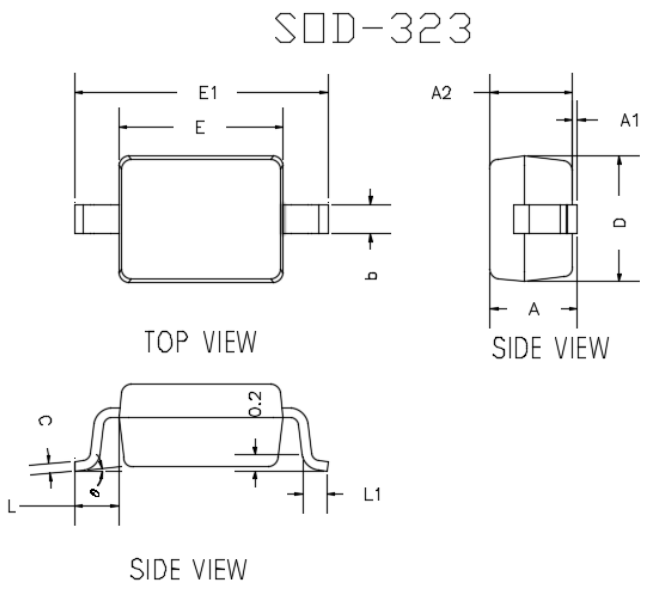



**Fig 4：Typical Reverse Characteristics**



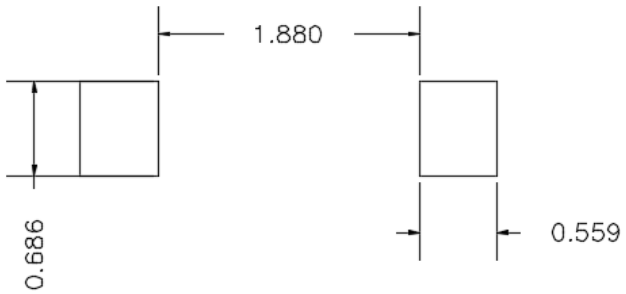
## ■Outline Dimensions




| DIMENSIONS | | | | |
|---|---|---|---|---|
| DIM | INCHES | | MM | |
| | MIN | MAX | MN | MAX |
| A | --- | 0.0393 | --- | 1.0000 |
| A1 | 0.0000 | 0.0039 | 0.0000 | 0.1000 |
| A2 | 0.0314 | 0.0354 | 0.8000 | 0.9000 |
| b | 0.0098 | 0.0157 | 0.2500 | 0.4000 |
| c | 0.0031 | 0.0059 | 0.0800 | 0.1500 |
| D | 0.0472 | 0.0551 | 1.2000 | 1.4000 |
| E | 0.0629 | 0.0709 | 1.6000 | 1.8000 |
| E1 | 0.0984 | 0.1063 | 2.5000 | 2.7000 |
| L | 0.0187TYP | | 0.475TYP | |
| L1 | 0.0098 | 0.0157 | 0.250 | 0.400 |
| θ | 0° | 8° | 0° | 8° |

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
[所有尺寸均以毫米为单位，除非另有说明]
2. General tolerances: ±0.10mm unless otherwise specified.
[通用公差为±0.10mm，除非另有说明]
3. Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
4.All dimensions shown are exclusive of burrs and gate residues.
Burrs and gate vestiges shall not exceed 0.15 mm in maximum.
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
5.Dimension b does not include dambar protrusion of max 0.100 mm per side.
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
6.Dimensions D and E are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.
[D和E是塑封体的外部极限尺寸，不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺，但是包含了包封错位的最大尺寸]
7.Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.
[成型的管脚应为同一平面，共面性最大为0.1mm]

## ■Soldering Footprint




UNIT: mm

SUGGESTED SOLDER PAD LAYOUT

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