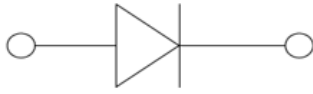


## Small Signal Schottky Rectifier



**SOD323**

### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- $V_R$  40V
- $I_{FAV}$  0.5A
- For Surface Mount Application
- Part no. with suffix "Q" means AEC-Q101 qualified

### Mechanical Data

- **Case:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** 4

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER                              | SYMBOL     | UNIT                      | CONDITIONS       | VALUE       |
|--|------------|---------------------------|------------------|-------------|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$  | V                         |                  | 40          |
| DC Blocking Voltage                    | $V_R$      | V                         |                  | 40          |
| Average Forward Current                | $I_{FAV}$  | A                         |                  | 0.5         |
| Peak Forward Surge Current             | $I_{FSM}$  | A                         | 8.3ms, half sine | 5.5         |
| Power Dissipation                      | $P_{tot}$  | mW                        |                  | 250         |
| Thermal Resistance Junction to Ambient | $R_{thJA}$ | $^\circ\text{C}/\text{W}$ |                  | 500         |
| Maximum Junction Temperature           | $T_j$      | $^\circ\text{C}$          |                  | -55 to +150 |
| Storage Temperature Range              | $T_{stg}$  | $^\circ\text{C}$          |                  | -55to +150  |

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

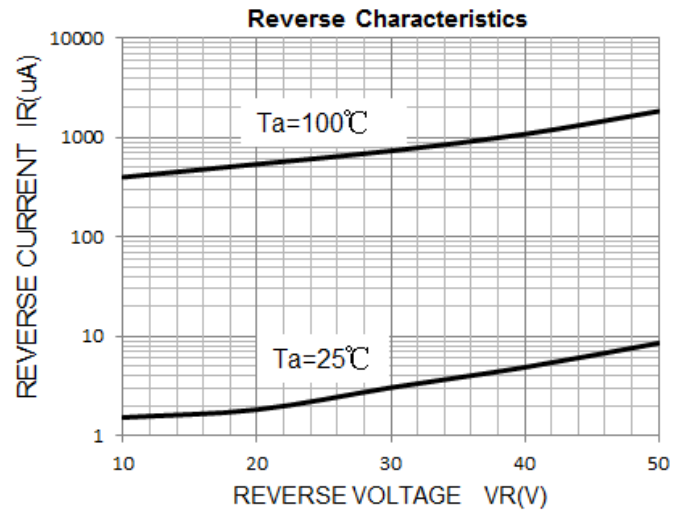
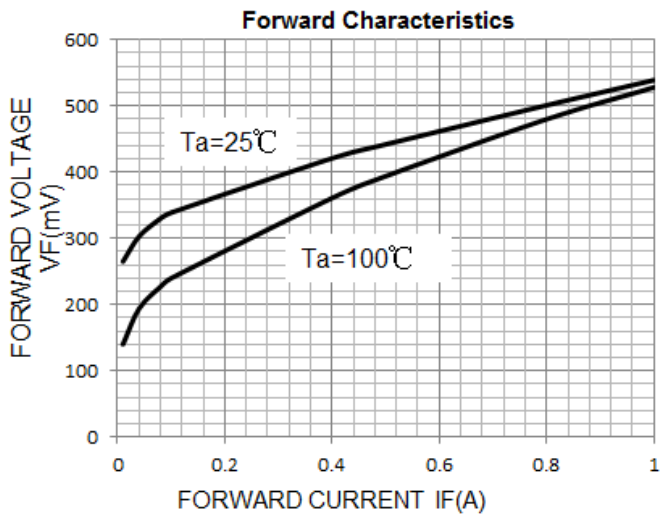
| PARAMETER                    | SYMBOL | UNIT          | CONDITIONS                              | MIN | TYP | MAX  |
|------------------------------|--------|---------------|---|-----|-----|------|
| Breakdown Voltage            | $V_R$  | V             | $I_R=20\mu\text{A}$                     | 40  |     |      |
| Forward Voltage              | $V_F$  | V             | $I_F=0.5\text{A}, T_A=25^\circ\text{C}$ |     |     | 0.55 |
| Reverse Leakage Current      | $I_R$  | $\mu\text{A}$ | $V_R=40\text{V}$                        |     |     | 80   |
| Typical Junction Capacitance | $C_J$  | pF            | $V_R=4\text{V}, f=1\text{MHz}$          |     |     | 30   |

### ■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| B0540WSQ      | F2           | Approximate 0.004 | 3000                 | 30000                   | 120000                     | 7" reel       |



■ Characteristics(Typical)

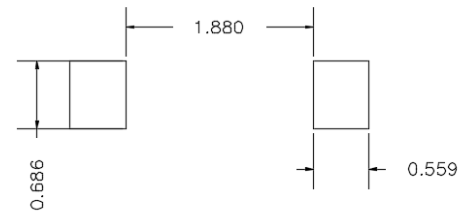
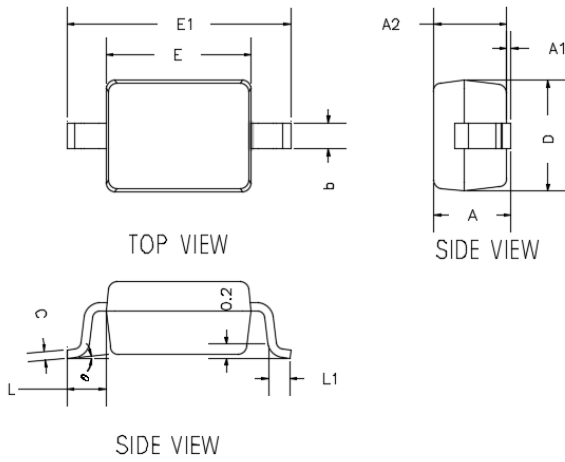




# B0540WSQ

## ■ Outline Dimensions

SOD-323



UNIT: mm

SUGGESTED SOLDER PAD LAYOUT

| DIMENSIONS |           |        |          |        |
|------------|-----------|--------|----------|--------|
| DIM        | INCHES    |        | MM       |        |
|            | MIN       |        | MIN      | 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  |
| ?          | 0°        | 8°     | 0°       | 8°     |

## ■ Marking Information



### Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. XX is Marking Code
4. Body color: Black



## B0540WSQ

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