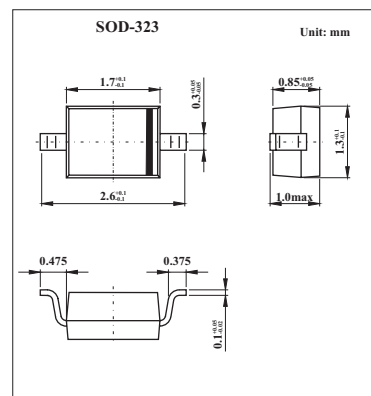


## Silicon Schottky diode

## BAT15-03W

## ■ Features

- DBC mixer applications to 12 GHz
- Low noise figure
- Low barrier type

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

| Parameter                                        | Symbol     | Value       | Unit             |
|--------------------------------------------------|------------|-------------|------------------|
| Diode reverse voltage                            | $V_R$      | 4           | V                |
| Forward current                                  | $I_F$      | 100         | mA               |
| Total power dissipation $T_s = 70^\circ\text{C}$ | $P_{tot}$  | 100         | mW               |
| Operating temperature range                      | $T_{op}$   | -55 to +150 | $^\circ\text{C}$ |
| Storage temperature                              | $T_{stg}$  | -55 to +150 |                  |
| Junction ambient <sup>(1)</sup>                  | $R_{thJA}$ | $\leq 770$  | K/W              |
| Junction-soldering point                         | $R_{thJS}$ | $\leq 690$  | K/W              |

Note:

1. Package mounted on an epoxy pcb 40 mm × 40 mm × 15 mm/1cm<sup>2</sup> Cu.

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

| Parameter                                                            | Symbol     | Min | Typ  | Max  | Unit     |
|----------------------------------------------------------------------|------------|-----|------|------|----------|
| Breakdown Voltage<br>$I_{(BR)} = 5\mu\text{A}$                       | $V_{(BR)}$ | 4   |      |      | V        |
| Forward voltage<br>$I_F = 1\text{ mA}$                               | $V_F$      |     | 0.23 | 0.32 | V        |
| $I_F = 10\text{ mA}$                                                 |            |     | 0.32 | 0.41 |          |
| Diode capacitance<br>$V_R = 0; f = 1\text{ MHz}$                     | $C_T$      |     |      | 0.35 | pF       |
| Differential forward resistance<br>$I_F = 10\text{ mA}/50\text{ mA}$ | $R_F$      |     | 5.5  |      | $\Omega$ |

## ■ Marking

|         |   |
|---------|---|
| Marking | P |
|---------|---|