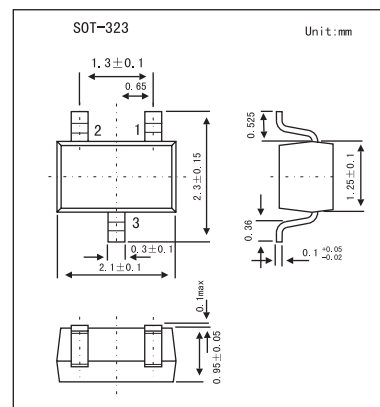


## Silicon Schottky Diode

## BAT17-04W,BAT17-05W,BAT17-06W

## ■ Features

- For mixer applications in VHF/UHF range
- For high-speed switching application

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

| Parameter                                           | Symbol     | Value       | Unit             |
|-----------------------------------------------------|------------|-------------|------------------|
| Diode reverse voltage                               | $V_R$      | 4           | V                |
| Forward current                                     | $I_F$      | 130         | mA               |
| Total power dissipation $T_s \leq 92^\circ\text{C}$ | $P_{tot}$  | 150         | mW               |
| Junction temperature                                | $T_j$      | 150         | $^\circ\text{C}$ |
| Operating temperature range                         | $T_{op}$   | -55 to +125 | $^\circ\text{C}$ |
| Storage temperature                                 | $T_{stg}$  | -55 to +150 | $^\circ\text{C}$ |
| Junction - soldering point(Note 1)                  | $R_{thJS}$ | $\leq 390$  | K/W              |

Note

1.For calculation of  $R_{thJA}$  please refer to Application Note Thermal Resistance■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

| Parameter                        | Symbol       | Conditions                                  | Min | Typ  | Max  | Unit          |
|----------------------------------|--------------|---------------------------------------------|-----|------|------|---------------|
| Breakdown voltage                | $V_{(BR)}$   | $I_{(BR)} = 10 \mu\text{A}$                 | 4   |      |      | V             |
| Reverse current                  | $I_R$        | $V_R = 3 \text{ V}$                         |     |      | 0.25 | $\mu\text{A}$ |
|                                  |              | $V_R = 4 \text{ V}$                         |     |      | 10   |               |
|                                  |              | $V_R = 3 \text{ V}, T_A = 60^\circ\text{C}$ |     |      | 1.25 |               |
| Forward voltage                  | $V_F$        | $I_F = 0.1 \text{ mA}$                      | 200 | 275  | 350  | mV            |
|                                  |              | $I_F = 1 \text{ mA}$                        | 250 | 340  | 450  |               |
|                                  |              | $I_F = 10 \text{ mA}$                       | 350 | 425  | 600  |               |
| Forward voltage matching(Note 1) | $\Delta V_F$ | $I_F = 1 \text{ mA}$                        |     |      | 20   | mV            |
| Diode capacitance                | $C_T$        | $V_R = 0, f = 1 \text{ MHz}$                | 0.4 | 0.55 | 0.75 | pF            |
| Differential forward resistance  | $R_F$        | $I_F = 5 \text{ mA}, f = 10 \text{ KHz}$    |     | 8    | 15   | $\Omega$      |

Note

1. $\Delta V_F$  is the difference between lowest and highest  $V_F$  in multiple diode component.

## ■ Marking

| Type    | BAT17-04W | BAT17-05W | BAT17-06W |
|---------|-----------|-----------|-----------|
| Marking | 54S       | 55S       | 56S       |