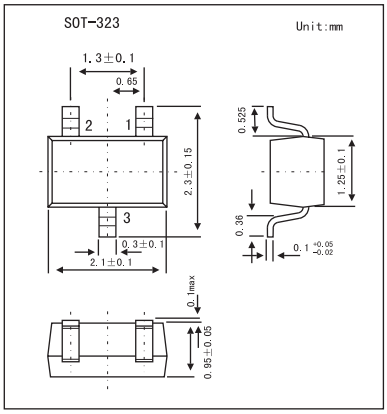
# Silicon Schottky Diode

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




## Features

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

## Absolute Maximum Ratings Ta = 25℃

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

Note

1.For calculation of RthJA please refer to Application Note Thermal Resistance

## Electrical Characteristics Ta = 25℃

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

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 |