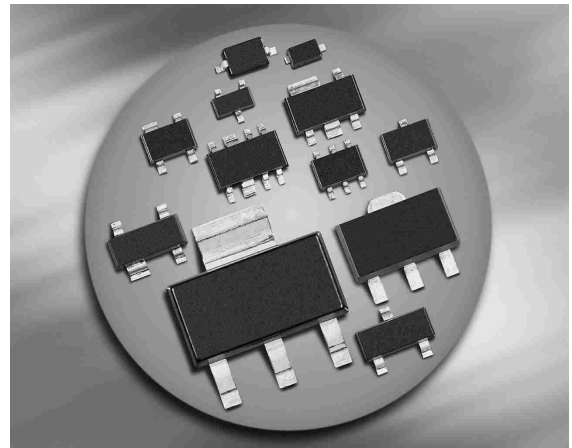
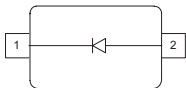


Silicon Schottky Diode

- DBS mixer applications up to 12 GHz
- Low noise figure
- Low barrier type



BAT14-03W



ESD: Electrostatic discharge sensitive device, observe handling precaution!

| Type | Package | Configuration | L_S (nH) | Marking |
|-----------|---------|---------------|------------|---------|
| BAT14-03W | SOD323 | single | 1.8 | O/white |

Maximum Ratings at $T_A = 25^\circ\text{C}$, unless otherwise specified

| Parameter | Symbol | Value | Unit |
|--|-----------|-------------|------|
| Diode reverse voltage | V_R | 4 | V |
| Forward current | I_F | 90 | mA |
| Total power dissipation $T_S \leq 85^\circ\text{C}$ | P_{tot} | 100 | mW |
| Junction temperature | T_j | 150 | °C |
| Operating temperature range | T_{op} | -55 ... 125 | |
| Storage temperature | T_{stg} | -55 ... 150 | |

Thermal Resistance

| Parameter | Symbol | Value | Unit |
|--|------------|------------|------|
| Junction - soldering point ¹⁾ | R_{thJS} | ≤ 690 | K/W |

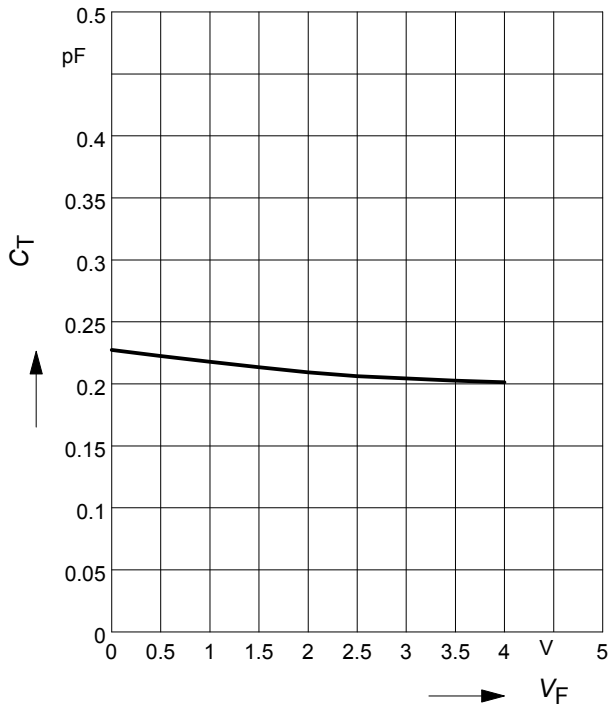
¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

| Parameter | Symbol | Values | | | Unit |
|--|------------|--------------|--------------|--------------|----------|
| | | min. | typ. | max. | |
| DC Characteristics | | | | | |
| Breakdown voltage $I_{(BR)} = 10 \mu\text{A}$ | $V_{(BR)}$ | 4 | - | - | V |
| Forward voltage $I_F = 1 \text{ mA}$ $I_F = 10 \text{ mA}$ | V_F | 0.36 0.48 | 0.43 0.55 | 0.52 0.66 | |
| AC Characteristics | | | | | |
| Diode capacitance $V_R = 0, f = 1 \text{ MHz}$ | C_T | - | 0.22 | 0.35 | pF |
| Differential forward resistance $I_F = 10\text{mA} / 50\text{mA}$ | R_F | - | 5.5 | - | Ω |

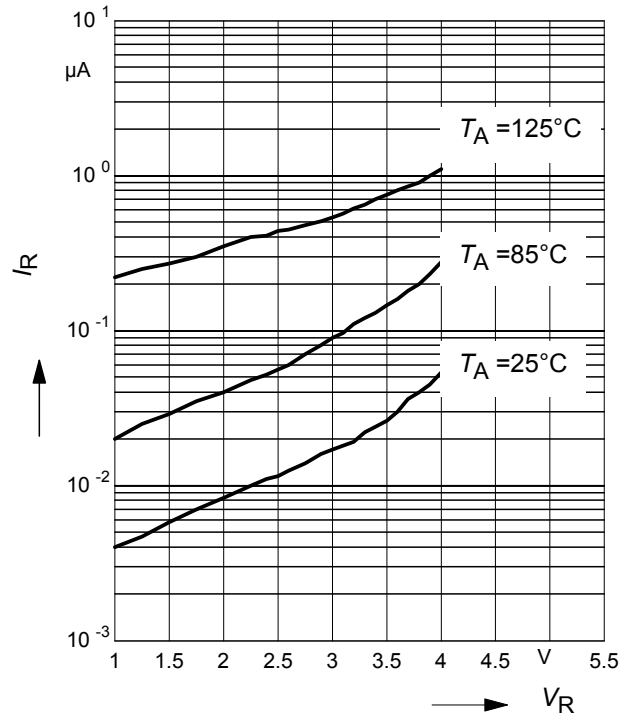
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



Forward current $I_F = f(V_F)$

