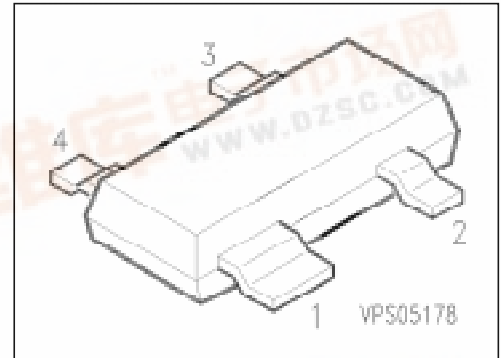


SIEMENS

Silicon Schottky Diode

BAT 62

- Low barrier diode for detectors up to GHz frequencies.



ESD: Electrostatic discharge sensitive device, observe handling precautions!

| Type | Marking | Ordering Code (tape and reel) | Pin Configuration | Package ¹⁾ |
|--------|---------|-------------------------------|-------------------|-----------------------|
| BAT 62 | 62 | Q62702-A971 | | SOT-143 |

Maximum Ratings per Diode

| Parameter | Symbol | Values | Unit |
|--|-----------|----------------|------------------|
| Reverse voltage | V_R | 40 | V |
| Forward current | I_F | 20 | mA |
| Total power dissipation, $T_s \leq 85^\circ\text{C}$ | P_{tot} | 100 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | - 55 ... + 150 | |

Thermal Resistance

| | | | |
|----------------------------------|-------------|------------|-----|
| Junction - ambient ²⁾ | $R_{th JA}$ | ≤ 810 | K/W |
| Junction - soldering point | $R_{th JS}$ | ≤ 650 | |

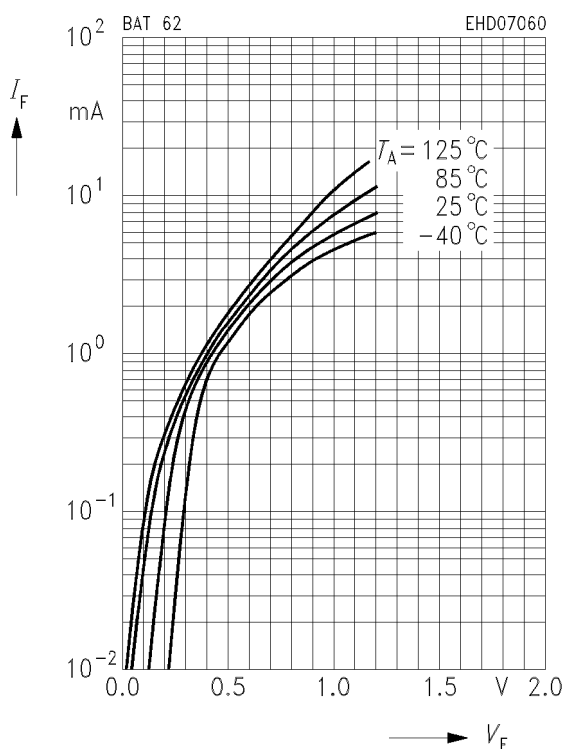


Electrical Characteristics per Diode

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

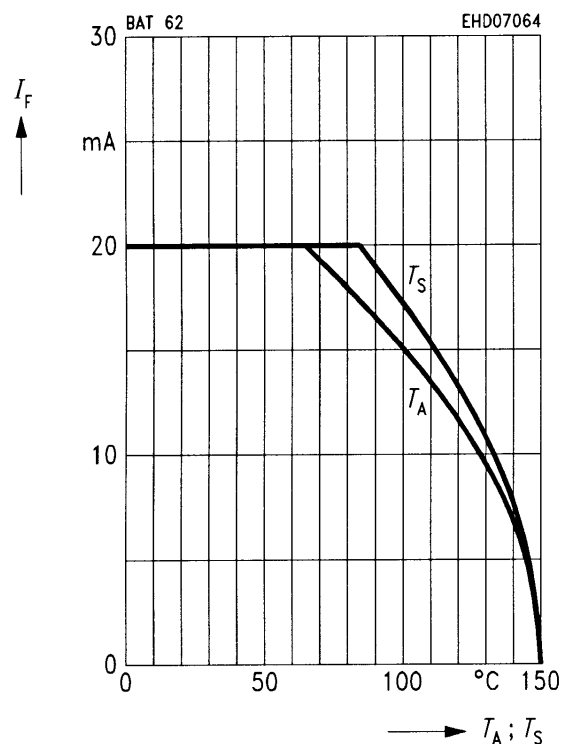
| Parameter | Symbol | Values | | | Unit |
|---|--------|--------|------|------|------------------|
| | | min. | typ. | max. | |
| Reverse current $V_R = 40\text{ V}$ | I_R | – | – | 10 | μA |
| Forward voltage $I_F = 2\text{ mA}$ | V_F | – | 0.58 | 1 | V |
| Diode capacitance $V_R = 0, f = 1\text{ MHz}$ | C_T | – | 0.35 | 0.6 | pF |
| Case capacitance | C_C | – | 0.1 | – | |
| Differential resistance $V_R = 0, f = 10\text{ kHz}$ | R_0 | – | 225 | – | $\text{k}\Omega$ |
| Series inductance | L_S | – | 2 | – | nH |

Forward current $I_F = f(V_F)$

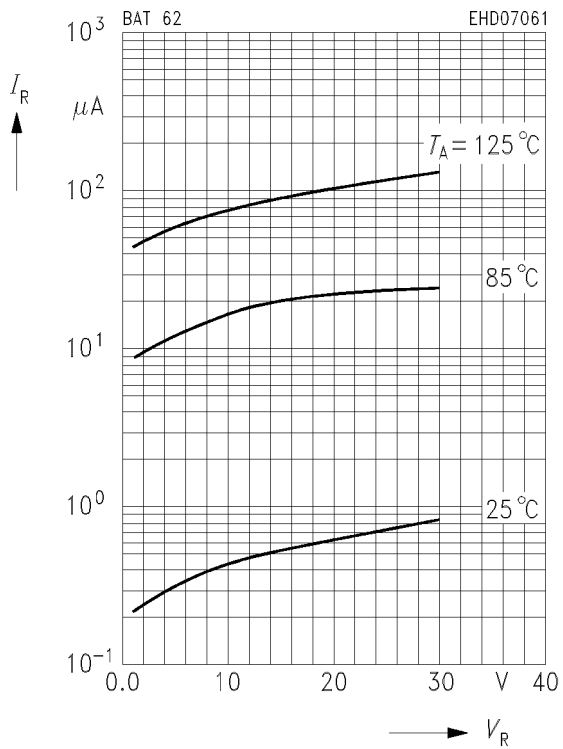


Forward current $I_F = f(T_S; T_A^*)$

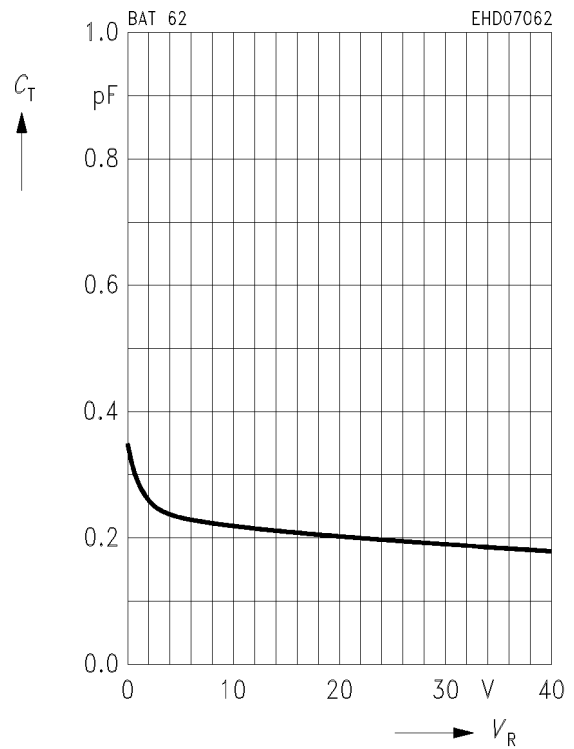
*Package mounted on alumina



Reverse current $I_R = f(V_R)$
 $f = 1 \text{ MHz}$



Diode capacitance $C_T = f(V_R)$
 $f = 1 \text{ MHz}$



Rectifier voltage $V_0 = f(V_i)$
 $f = 900 \text{ MHz}$

