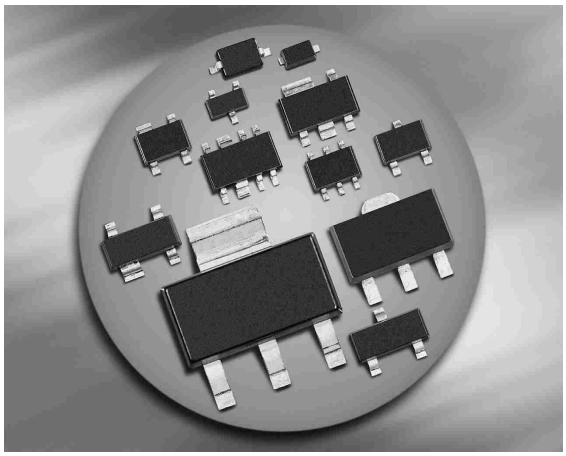
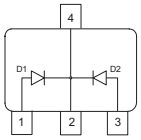
**Silicon Schottky Diode**

- Power rectifier diode
- For low-loss, fast-recovery rectification, meter protection, bias isolation and clamping purpose



**BAT66-05**




**ESD**: **E**lectro**s**tatic **d**ischarge sensitive device, observe handling precaution!

| Type | Package | Configuration | Marking |
|---|---|---|---|
| BAT66-05 | SOT223 | common cathode | BAT66-05 |

**Maximum Ratings** at $T_A$ = 25°C, unless otherwise specified

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Diode reverse voltage | $V_R$ | 30 | V |
| Forward current | $I_F$ | 2 | A |
| Surge forward current, ($t \leq$ 10ms) | $I_{FSM}$ | 10 | |
| Average forward current (50/60Hz, sinus) | $I_{FAV}$ | 1 | |
| Total power dissipation<br>$T_S \leq$ 126°C | $P_{tot}$ | 1.2 | W |
| Junction temperature | $T_j$ | 150 | °C |
| Storage temperature | $T_{stg}$ | -55 ... 150 | |

**Thermal Resistance**

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Junction - soldering point[1)] | $R_{thJS}$ | ≤ 20 | K/W |

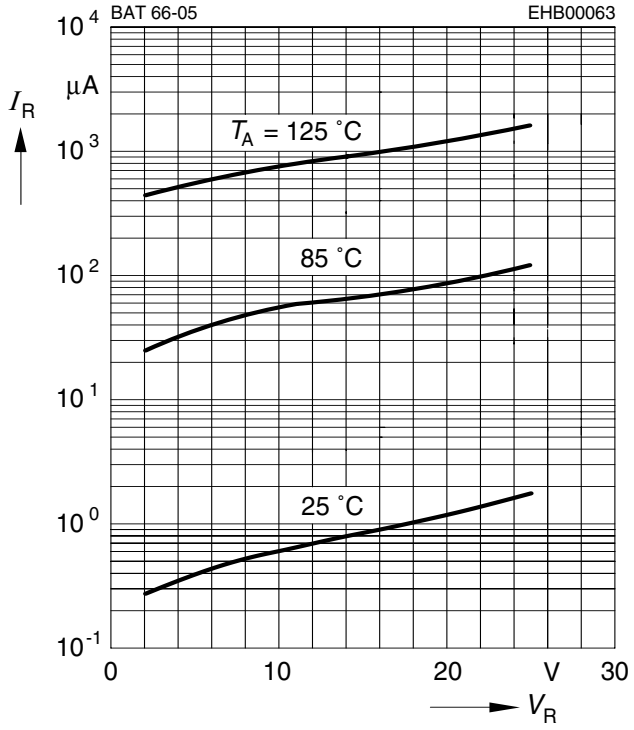
[1]For calculation of $R_{thJA}$ please refer to Application Note Thermal Resistance

**Electrical Characteristics** at $T_A$ = 25°C, unless otherwise specified

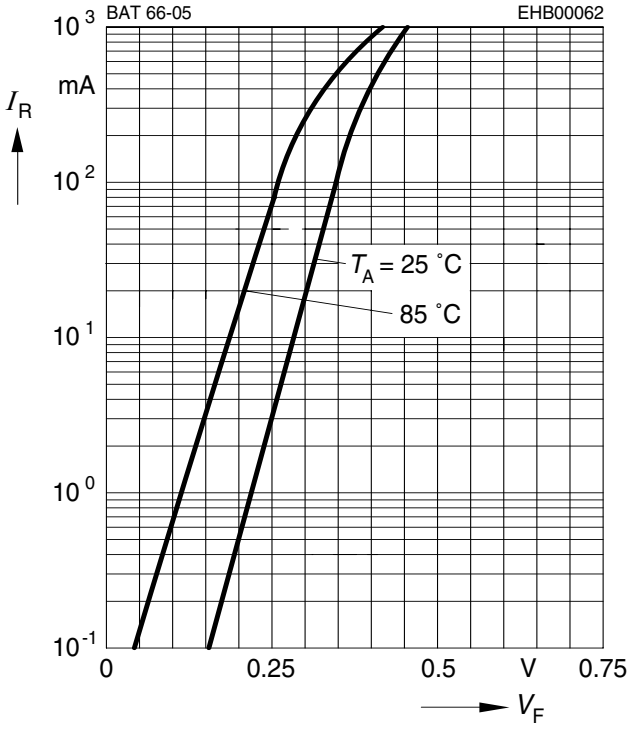
| Parameter | Symbol | Values | | | Unit |
|---|---|---|---|---|---|
| | | min. | typ. | max. | |
| **DC Characteristics** | | | | | |
| Reverse current | $I_R$ | | | | µA |
| $V_R$ = 25 V | | - | - | 10 | |
| $V_R$ = 25 V, $T_A$ = 85 °C | | - | - | 1000 | |
| Forward voltage | $V_F$ | | | | V |
| $I_F$ = 10 mA | | - | 0.28 | 0.35 | |
| $I_F$ = 100 mA | | - | 0.35 | - | |
| $I_F$ = 1 A | | - | 0.47 | 0.6 | |
| **AC Characteristics** | | | | | |
| Diode capacitance | $C_T$ | - | 30 | 40 | pF |
| $V_R$ = 10 V, $f$ = 1 MHz | | | | | |

**Reverse current $I_R = f(V_R)$**

$T_A$ = Parameter




**Forward current $I_F = f(V_F)$**




**Forward current $I_F = f(T_S)$**