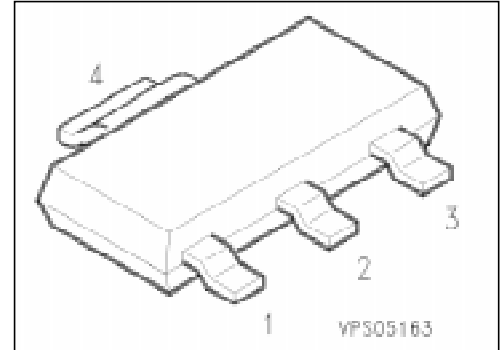


## Silicon Schottky Diode

**BAT 66-05**

### Preliminary Data

- Low-power Schottky rectifier diode
- For low-loss, fast-recovery rectification, meter protection, bias isolation and clamping purposes



Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package <sup>1)</sup>
BAT 66-05	BAT 66-05	Q62702-A988		SOT-223

### Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	$V_R$	40	V
Forward current	$I_F$	2	A
Average forward current, 50 Hz	$I_{FAV}$	1	
Surge forward current, $t \leq 10$ ms	$I_{FSM}$	10	
Total power dissipation, $T_s \leq 126$ °C	$P_{tot}$	1.2	W
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	- 55 ... + 150	

### Thermal Resistance

Junction - ambient <sup>2)</sup>	$R_{th JA}$	$\leq 160$	K/W
Junction - soldering point	$R_{th JS}$	$\leq 20$	

<sup>1)</sup> For detailed information see chapter Package Outlines.

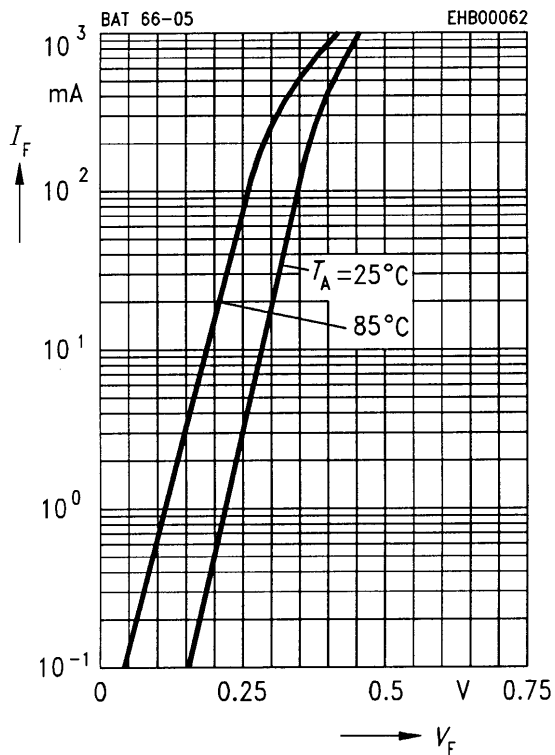
<sup>2)</sup> Package mounted on epoxy pcb 40 mm × 40 mm × 1.5 mm/6 cm<sup>2</sup> Cu.

## Electrical Characteristics

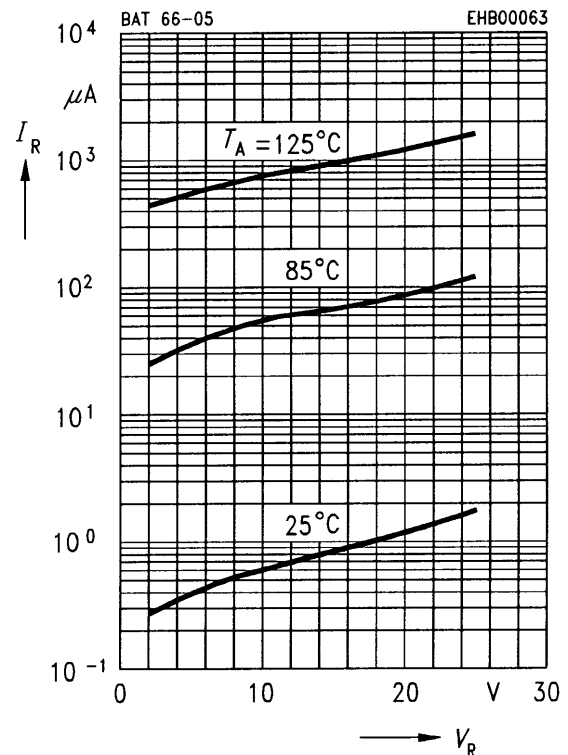
at  $T_A = 25\text{ }^\circ\text{C}$ , unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current $V_R = 25\text{ V}$ $V_R = 25\text{ V}, T_A = 85\text{ }^\circ\text{C}$	$I_R$	—	—	10 1	$\mu\text{A}$ $\text{mA}$
Forward voltage $I_F = 10\text{ mA}$ $I_F = 100\text{ mA}$ $I_F = 1\text{ A}$	$V_F$	—	0.28 0.35 0.47	0.35 — 0.60	V
Diode capacitance $V_R = 10\text{ V}, f = 1\text{ MHz}$	$C_T$	—	30	40	pF

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



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



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

\* Package mounted on epoxy

