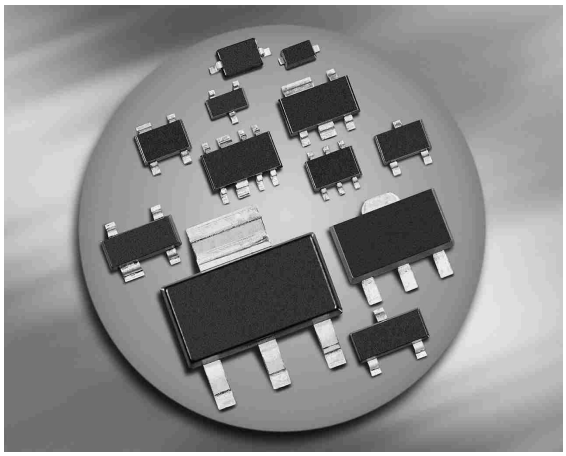
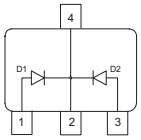
Silicon Schottky Diode

- 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 $T_S \leq$ 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

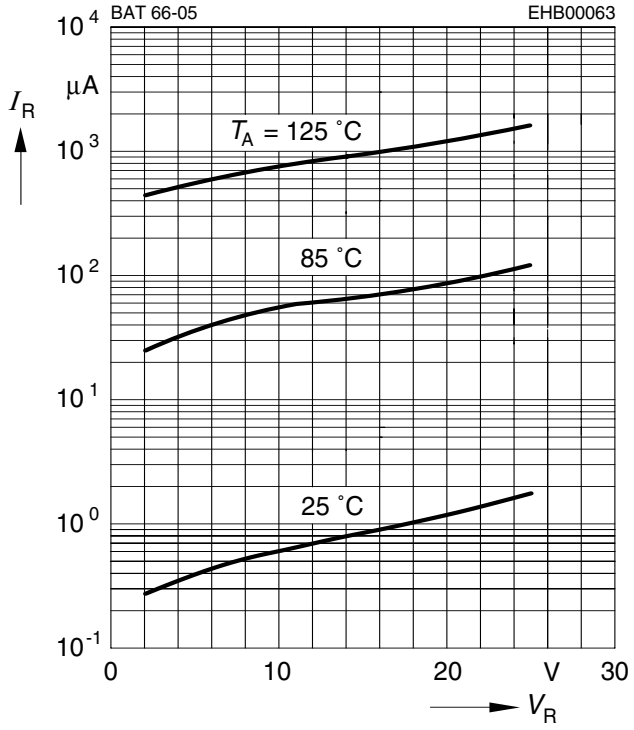
[1]For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

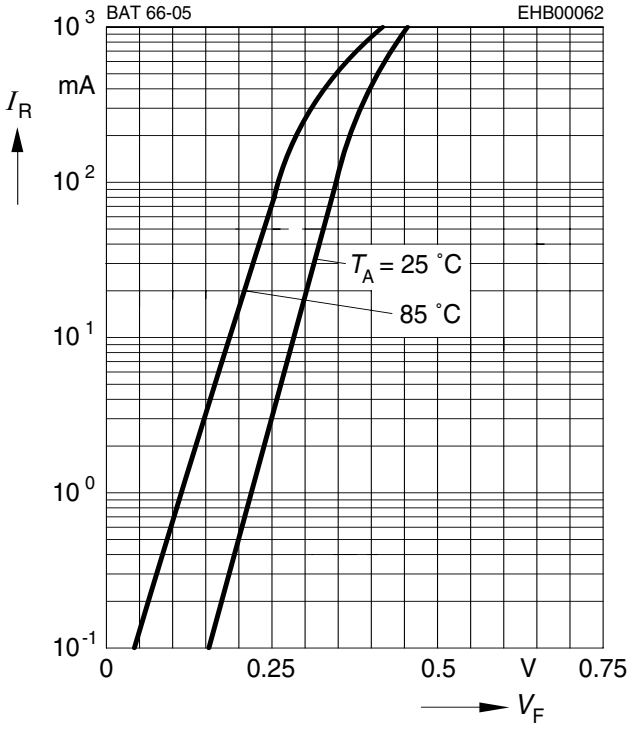
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current	I_R				µA
V_R = 25 V		-	-	10	
V_R = 25 V, T_A = 85 °C		-	-	1000	
Forward voltage	V_F				V
I_F = 10 mA		-	0.28	0.35	
I_F = 100 mA		-	0.35	-	
I_F = 1 A		-	0.47	0.6	
AC Characteristics					
Diode capacitance	C_T	-	30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

Reverse current $I_R = f(V_R)$

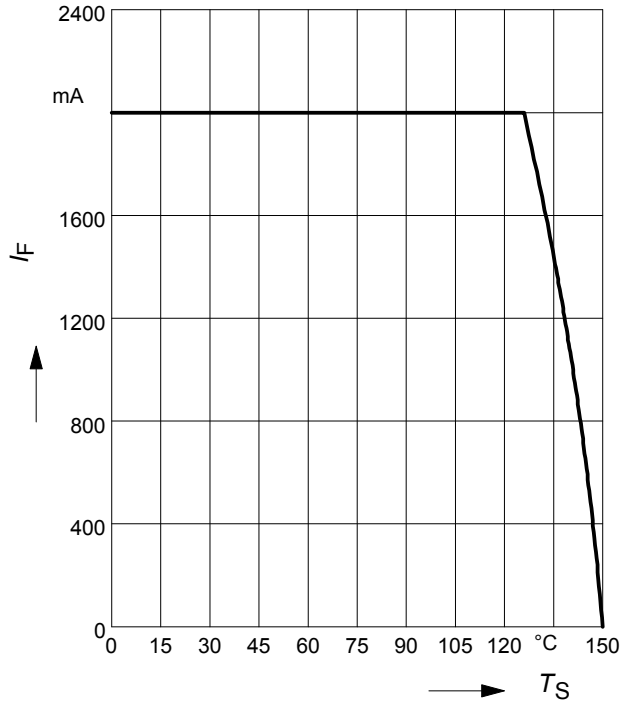
T_A = Parameter



Forward current $I_F = f(V_F)$



Forward current $I_F = f(T_S)$



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