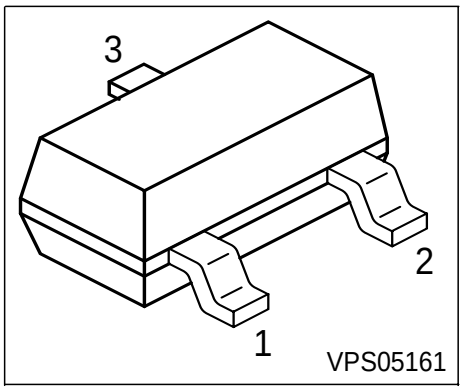
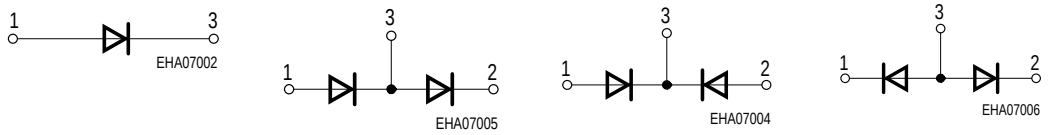
Silicon Schottky Diodes



- For low-loss, fast-recovery, meter protection, bias isolation and clamping applications
- Integrated diffused guard ring
- Low forward voltage

BAT64 **BAT64-04** **BAT64-05** **BAT64-06**



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

Type	Marking	Pin Configuration			Package
BAT64	63s	1 = A	2 n.c.	3 = C	SOT23
BAT64-04	64s	1 = A1	2 = C2	3 = C1/A2	SOT23
BAT64-05	65s	1 = A1	2 = A2	3 = C1/C2	SOT23
BAT64-06	66s	1 = C1	2 = C2	3 = A1/A2	SOT23

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	40	V
Forward current	I_F	250	mA
Surge forward current	I_{FSM}	800	
Average forward current (50/60Hz, sinus)	I_{FAV}	120	
Total power dissipation	P_{tot}		mW
$T_S \leq 86°C$, BAT64		250	
$T_S \leq 61°C$, BAT64-04/BAT64-06		250	
$T_S \leq 36°C$, BAT64-05		250	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point[1)]	R_{thJS}		K/W
BAT64		≤ 255	
BAT64-04/BAT64-06		≤ 355	
BAT64-05		≤ 455	

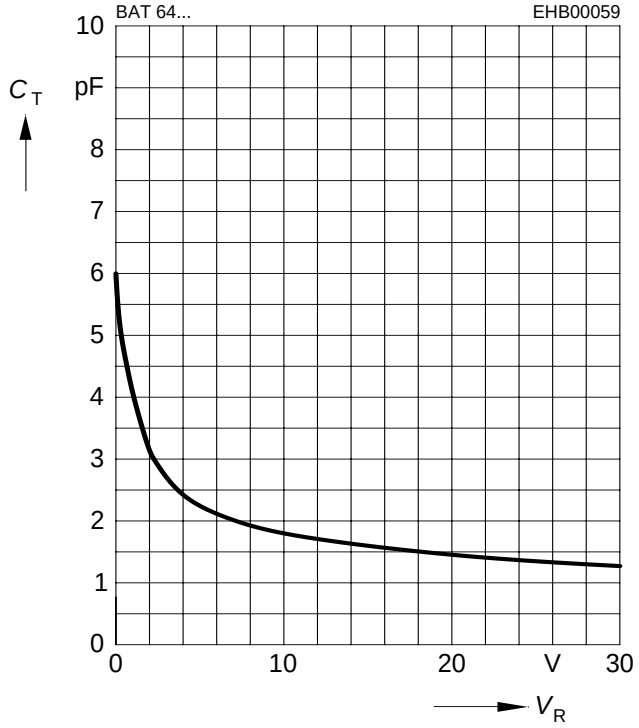
[1]For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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		-	-	2	
V_R = 25 V, T_A = 85 °C		-	-	200	
Forward voltage	V_F				mV
I_F = 1 mA		-	320	350	
I_F = 10 mA		-	385	430	
I_F = 30 mA		-	440	520	
I_F = 100 mA		-	570	750	
AC Characteristics					
Diode capacitance-	C_T	-	4	6	pF
V_R = 1 V, f = 1 MHz					

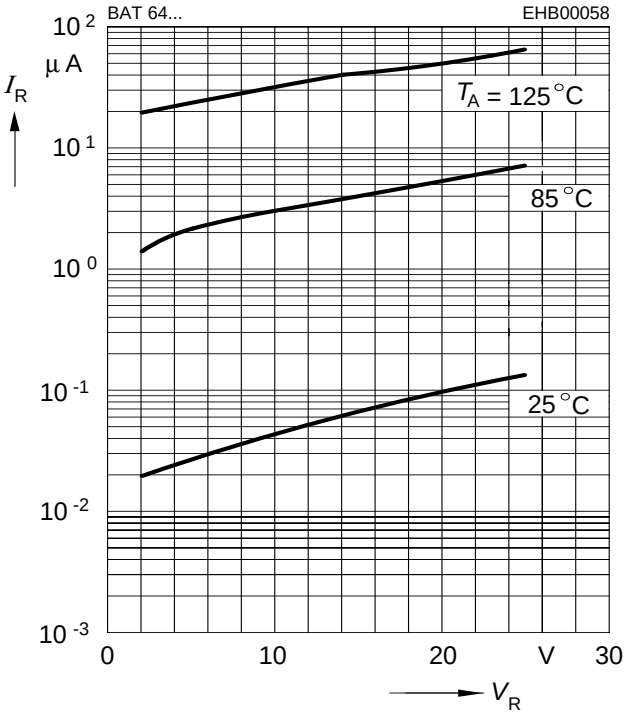
Diode capacitance $C_T = f\ (V_R)$

f = 1MHz



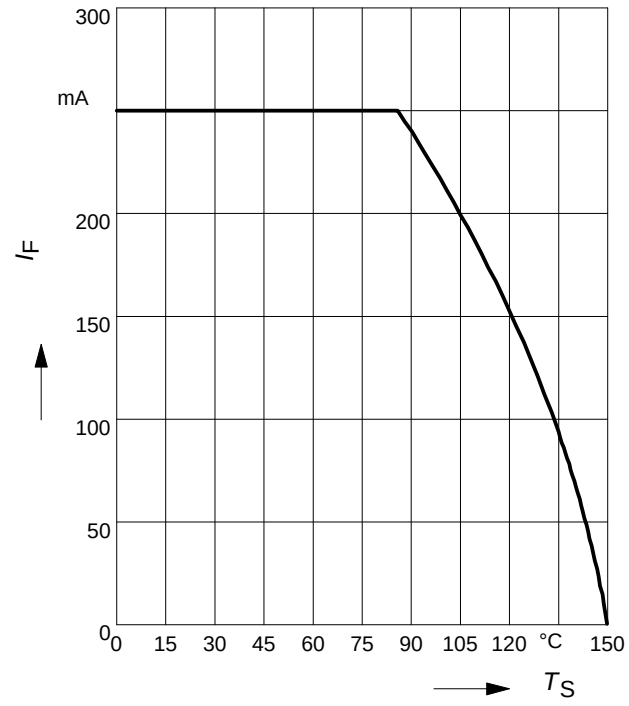
Reverse current $I_R = f(V_R)$

T_A = Parameter



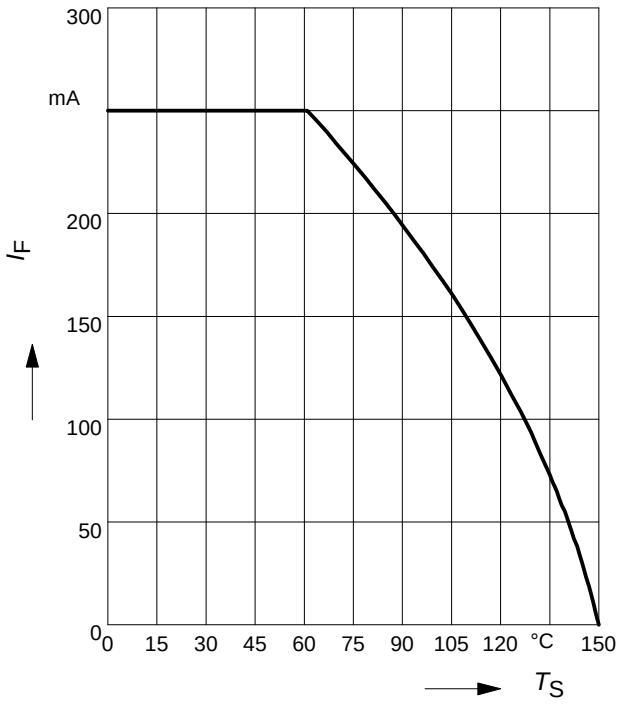
Forward current $I_F = f\ (T_S)$

BAT64



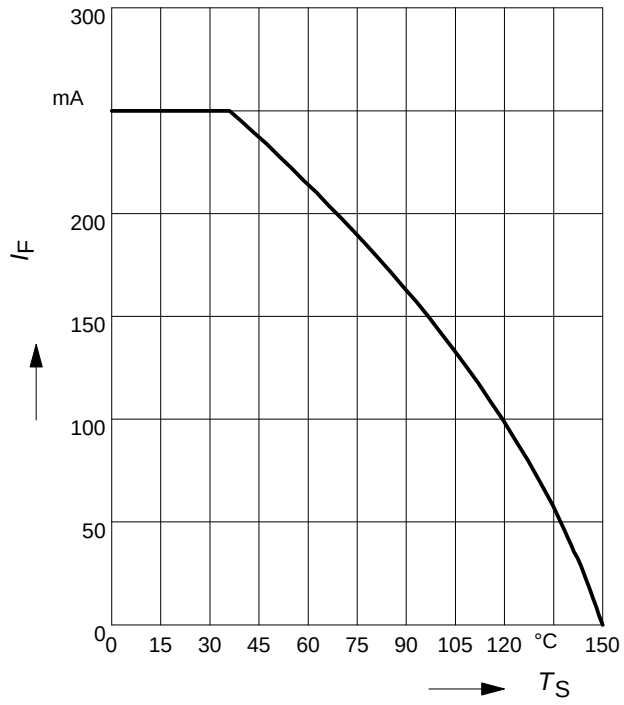
Forward current $I_F = f\ (T_S)$

BAT64-04, BAT64-06



Forward current $I_F = f(T_S)$

BAT64-05



Forward current $I_F = f(V_F)$

T_A = Parameter