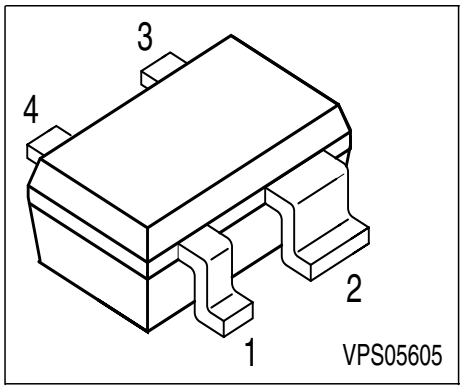
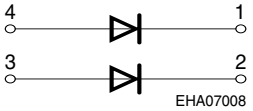
Silicon Schottky Diode

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





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

Type	Marking	Pin Configuration				Package
BAS 125-07W	17s	1 = C1	2 = C2	3 = A2	4 = A1	SOT-343

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	25	V
Forward current	I_F	100	mA
Surge forward current (t< 100µs)	I_{FSM}	500	
Total power dissipation, T_S = 25 °C	P_{tot}	250	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ... 150	

Maximum Ratings

Junction - ambient [1)]	R_{thJA}	≤ 725	K/W
Junction - soldering point	R_{thJS}	≤ 565	

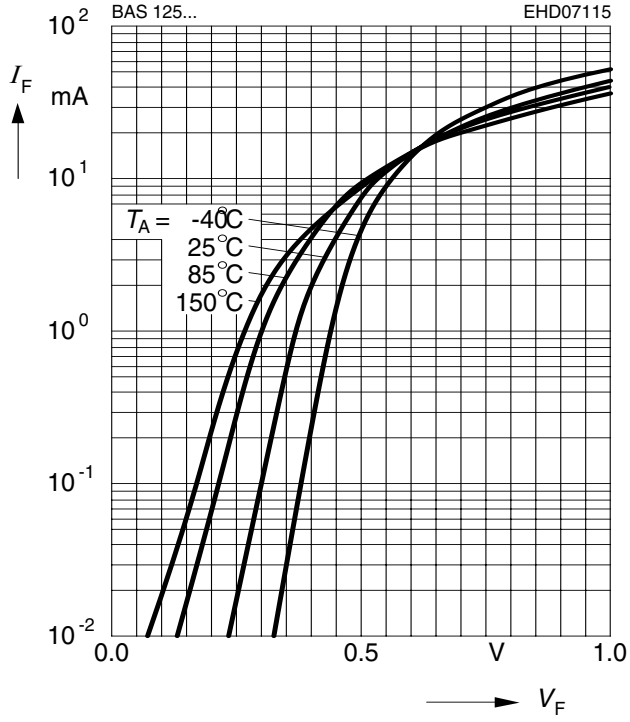
1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm^2 Cu

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current	I_R				nA
V_R = 20 V		-	-	100	
V_R = 25 V		-	-	150	
Forward voltage	V_F				mV
I_F = 1 mA		-	385	400	
I_F = 10 mA		-	530	650	
I_F = 35 mA		-	800	950	
AC characteristics					
Diode capacitance V_R = 0 V, f = 1 MHz	C_T	-	-	1.1	pF
Differential forward resistance I_F = 5 mA, f = 10 kHz	R_f	-	16	-	Ω

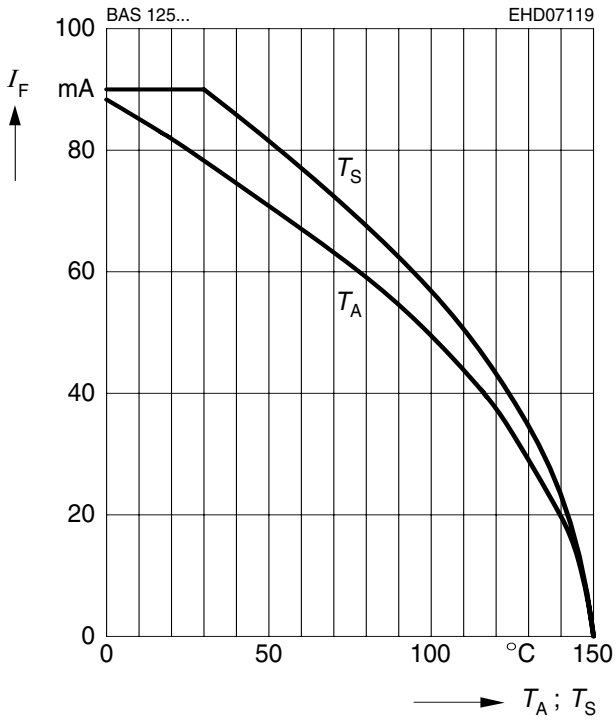
Forward current $I_F = f(V_F)$

T_A = Parameter



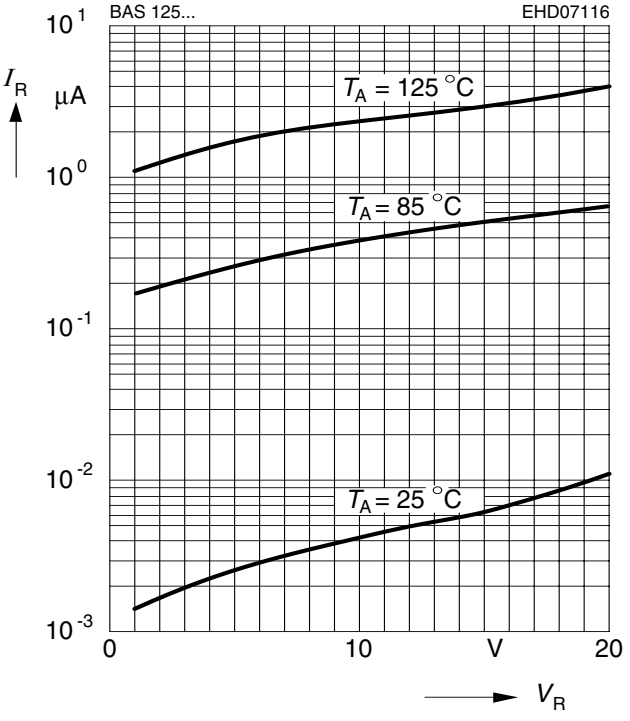
Forward current $I_F = f(T_A^*; T_S)$

* Package mounted on epoxy



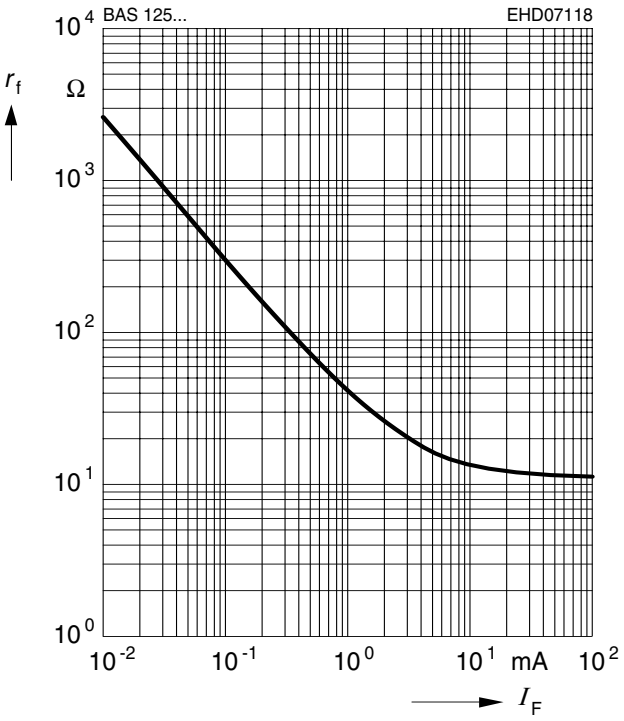
Reverse current $I_R = f(V_R)$

T_A = Parameter



Differential forward resistance $r_f = f(I_F)$

f = 10 kHz



Diode capacitance $C_T = f(V_R)$

f = 1MHz