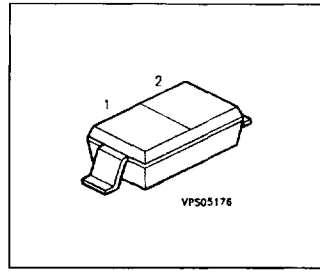
Silicon Schottky Diode

Preliminary data

- For mixer applications in the VHF/UHF range
- For high speed switching



Type	Marking	Ordering Code	Pin Configuration			Package
BAT 68-03W	K	Q62702-A1046	1 = A	2 = K		SOD-323

Maximum Ratings

Parameter	Symbol	Values	Unit
Diode reverse voltage	V_R	8	V
Forward current	I_F	130	mA
Total Power dissipation T_S = 95 °C	P_{tot}	150	mW
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	- 65 ... + 150	
Storage temperature	T_{stg}	- 65 ... + 150	

Thermal Resistance

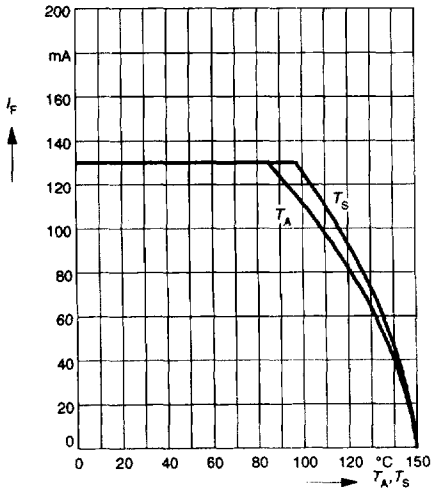
Junction ambient [1]	R_{thJA}	445	K/W
Junction - soldering point	R_{thJS}	365	

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

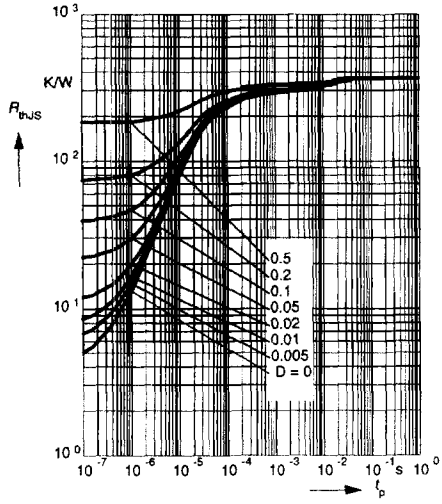
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage	$V_{(BR)}$				V
$I_{(BR)}$ = 10 µA		8	-	-	
Reverse current	I_R				µA
V_R = 1 V, T_A = 25 °C		-	-	0.1	
V_R = 1 V, T_A = 60 °C		-	-	1.2	
Forward voltage	V_F				mV
I_F = 1 mA		-	318	340	
I_F = 10 mA		340	390	500	
Diode capacitance	C_T				pF
V_R = 0 , f = 1 MHz		-	-	1	
Differential forward resistance	R_F				Ω
I_F = 5 mA		-	-	10	

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

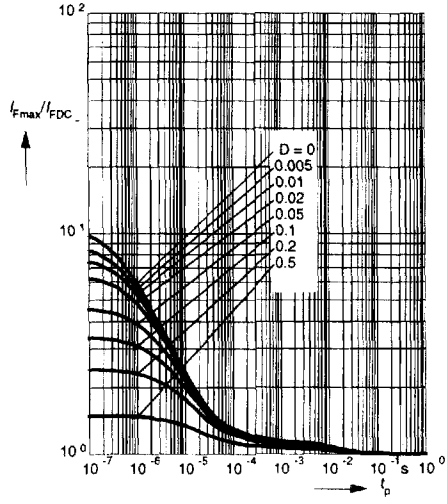
*): mounted on alumina 15mm x 16.7mm x 0.7mm



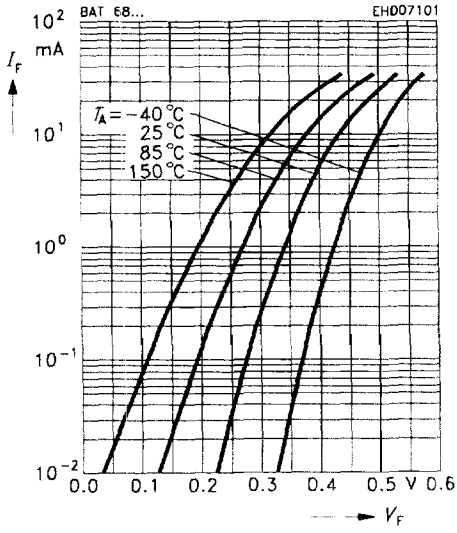
Permissible Pulse Load $R_{THJS} = f(t_p)$



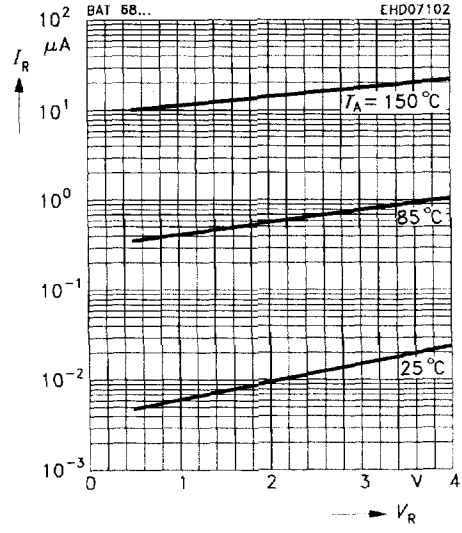
Permissible Pulse Load $I_{Fmax}/I_{FDC} = f(t_p)$



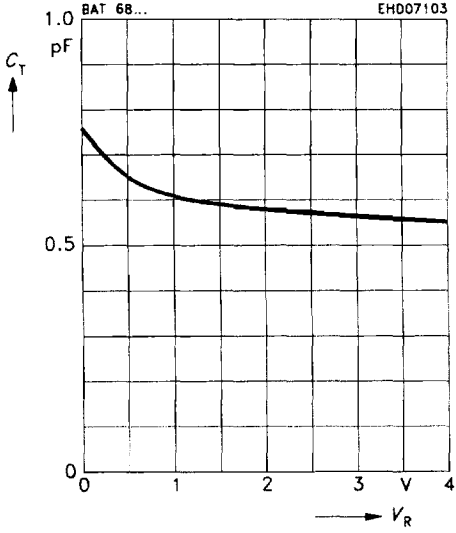
Forward Current $I_F = f(V_F)$



Reverse current $I_R = f(T_A)$



Diode capacitance $C_T = f(V_R)$
f = 1MHz



Differential forward resistance $r_f = f(I_F)$
f = 10kHz