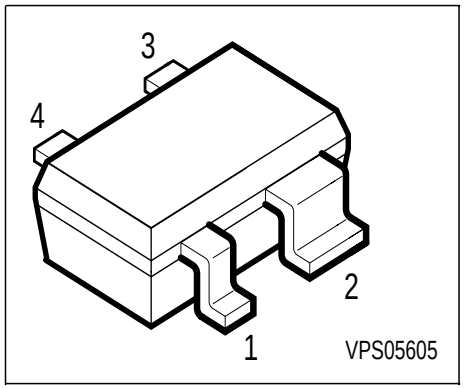
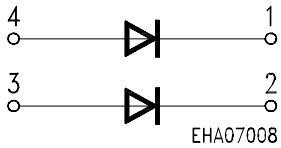
SIEMENS

BAT 68-07W

Silicon Schottky Diodes

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





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

Type	Marking	Ordering Code	Pin Configuration				Package
BAT 68-07W	87	Q62702-A1200	1 = C1	2 = C2	3 = A2	4 = A1	SOT-343

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	8	V
Forward current	I_F	130	mA
Total power dissipation, T_S = 89 °C	P_{tot}	150	mW
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	-65...+150	°C
Storage temperature	T_{stg}	- 65 ...+150	°C

Maximum Ratings

Junction - ambient 1)	R_{thJA}	≤ 570	K/W
Junction - soldering point	R_{thJS}	≤ 410	

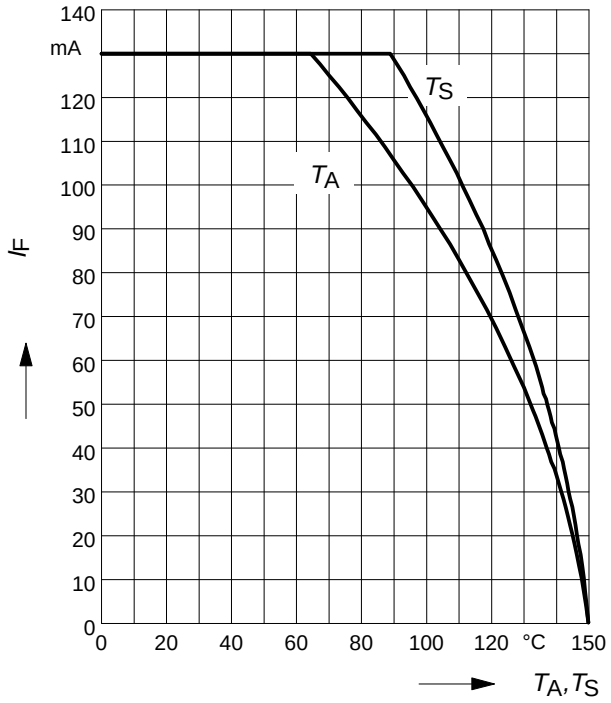
1) Package mounted on alumina 15mm x 17.6mm x 0.7mm

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

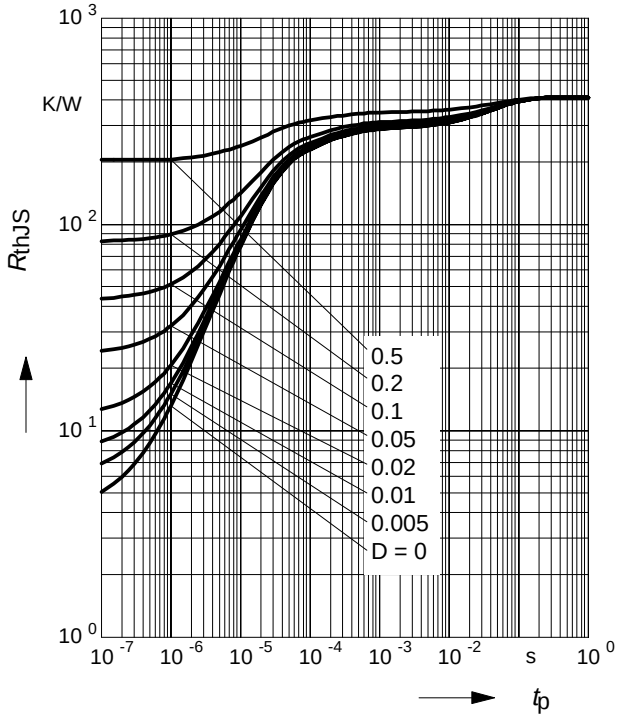
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)}$ = 10 µA	$V_{(BR)}$	8	-	-	V
Reverse current V_R = 1 V	I_R	-	-	0.1	µA
Reverse current V_R = 1 V, T_A = 60 °C	I_R	-	-	1.2	nA
Forward voltage I_F = 1 mA I_F = 10 mA	V_F	 - 340	 318 390	 340 500	mV
AC characteristics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

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

* Package mounted on alumina

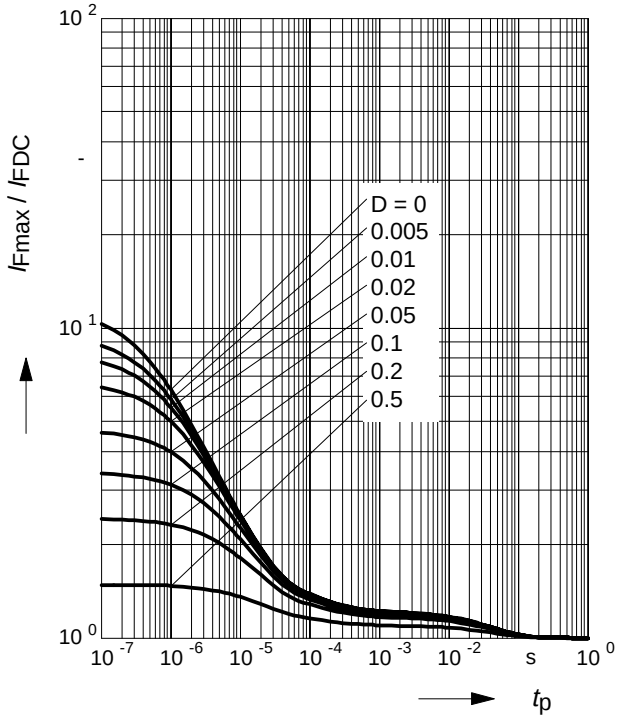


Permissible Pulse Load $R_{thJS} = f(t_p)$



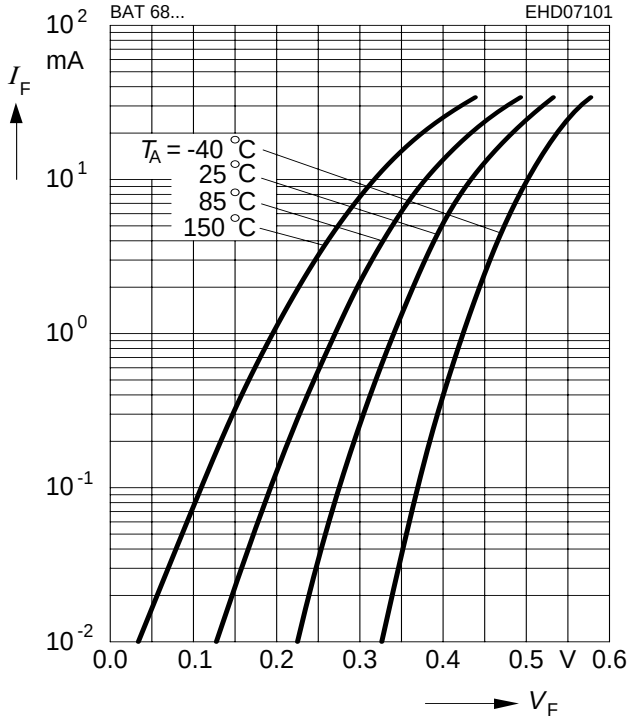
Permissible Pulse Load

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



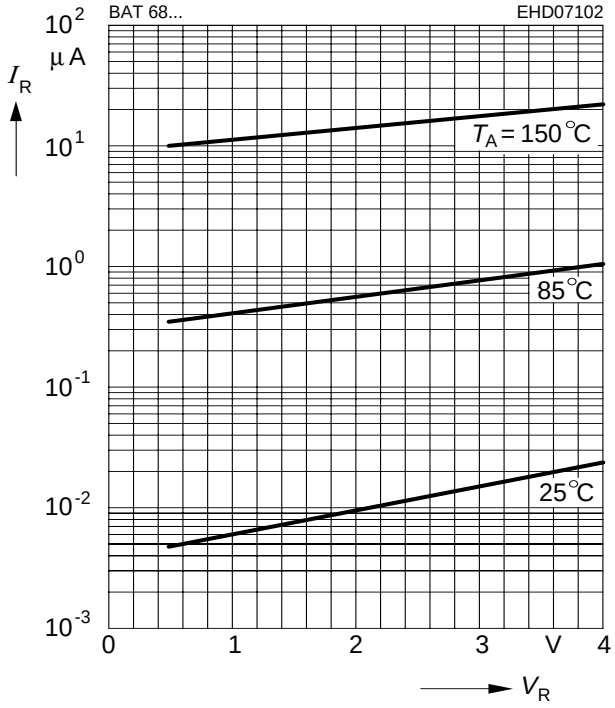
Forward current $I_F = f(V_F)$

T_A = Parameter



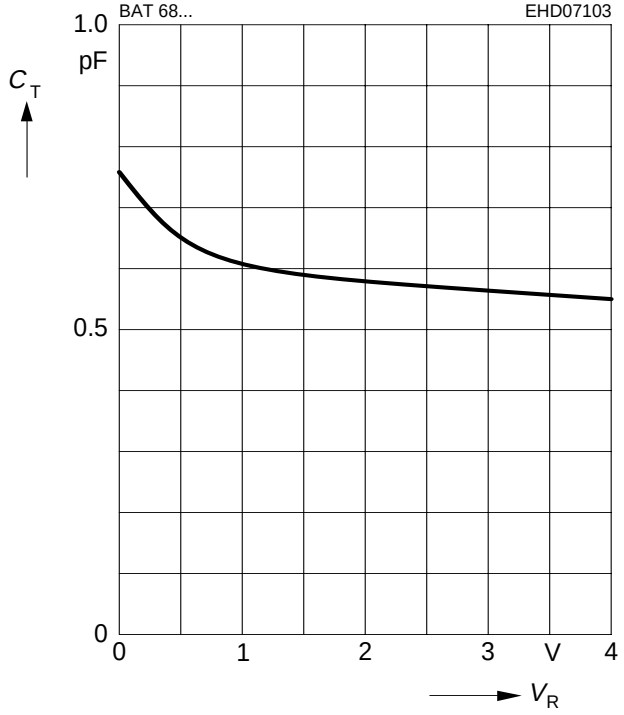
Reverse current $I_R = f(V_R)$

T_A = Parameter



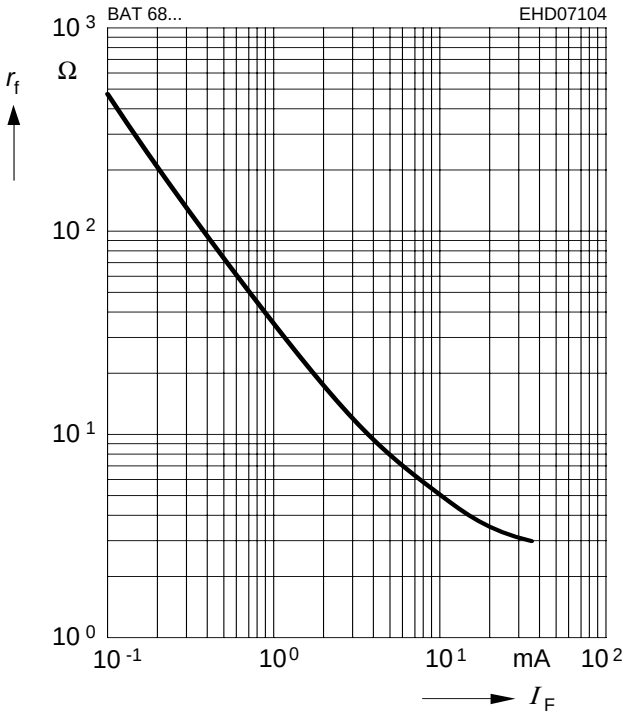
Diode capacitance $C_T = f(V_R)$

f = 1MHz



Differential forward resistance $r_f = f(I_F)$

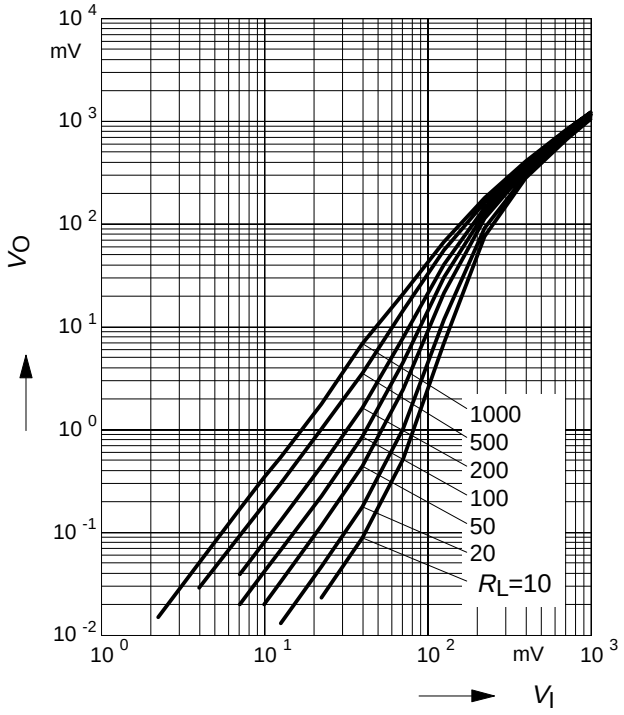
f = 10 kHz



Rectifier voltage $V_{out} = f(V_{in})$

f = 900 MHz

R_L = parameter in kΩ



Testcircuit: