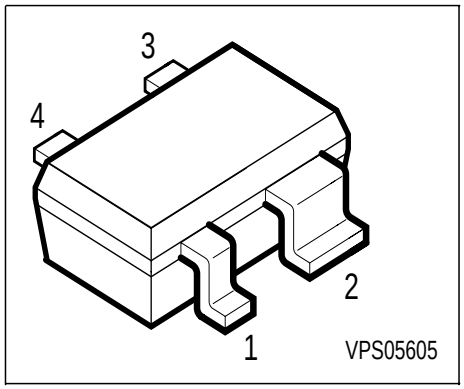
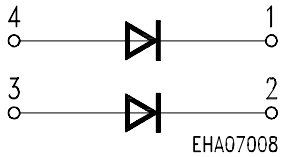
Silicon Schottky Diode

- Low barrier diode for detectors up to GHz frequencies





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

Type	Marking	Ordering Code	Pin Configuration				Package
BAT 62-07W	62s	Q62702-A1198	1=C1	2=C2	3=A2	4=A1	SOT-343

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	40	V
Forward current	I_F	20	mA
Total power dissipation, T_S = 103 °C	P_{tot}	100	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ...+150	

Thermal Resistance

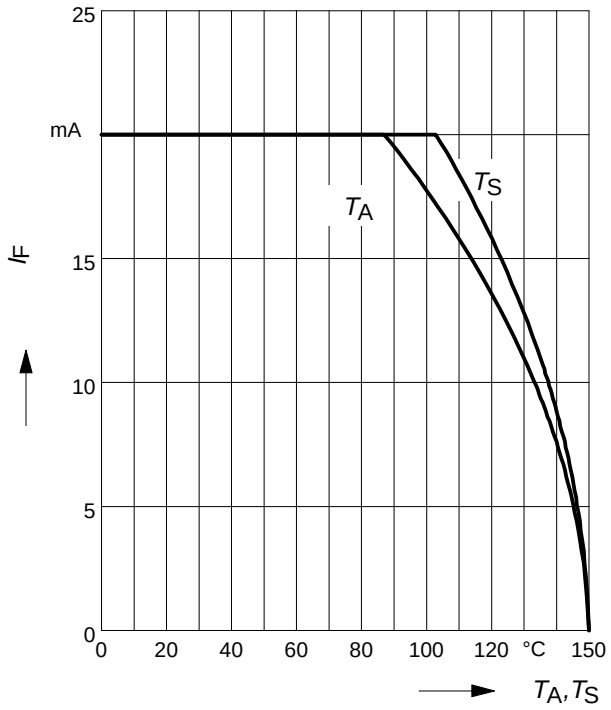
Junction - ambient [1)]	R_{thJA}	≤ 630	K/W
Junction - soldering point	R_{thJS}	≤ 470	

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current V_R = 40 V	I_R	-	-	10	µA
Forward voltage I_F = 2 mA	V_F	-	0.58	1	V
AC characteristics					
Diode capacitance V_R = 0 V, f = 1 MHz	C_T	-	0.35	0.6	pF
Case capacitance f = 1 MHz	C_C	-	0.1	-	
Differential resistance V_R = 0 , f = 10 kHz	R_0	-	225	-	kΩ
Series inductance chip to ground	L_s	-	2	-	nH

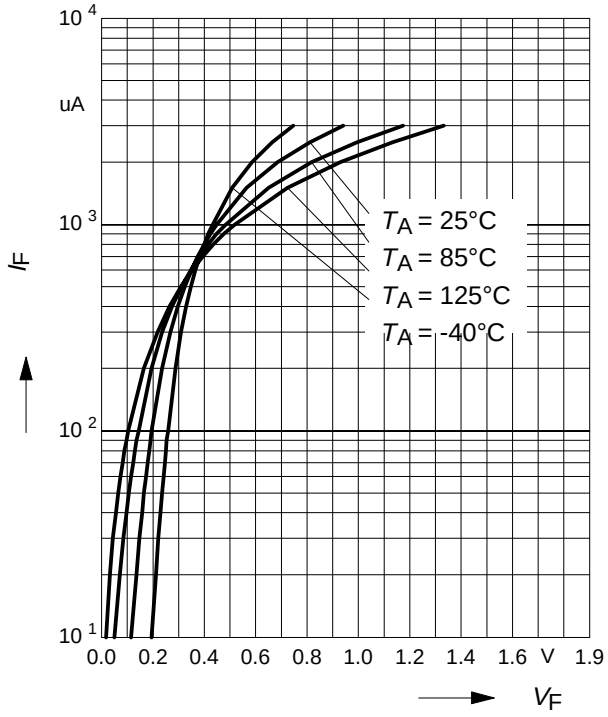
Forward current $I_F = f(T_A^*; T_S)$

* mounted on alumina



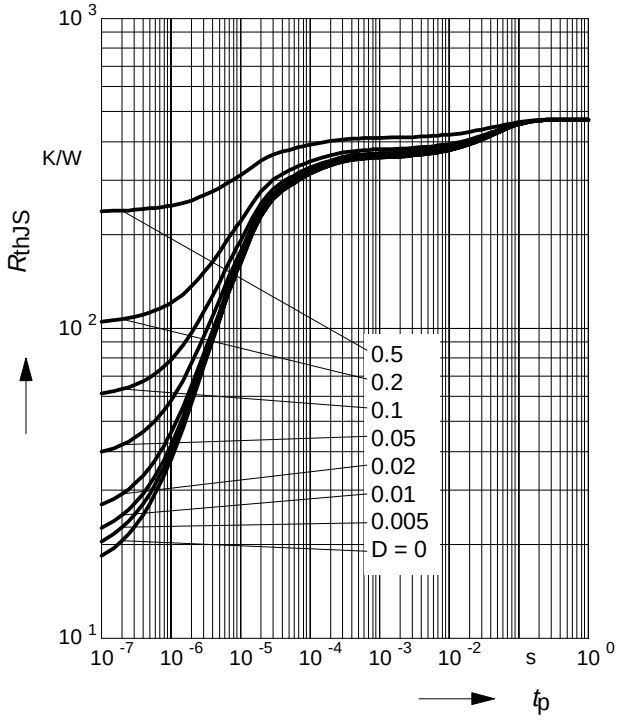
Forward current $I_F = f(V_F)$

T_A = parameter

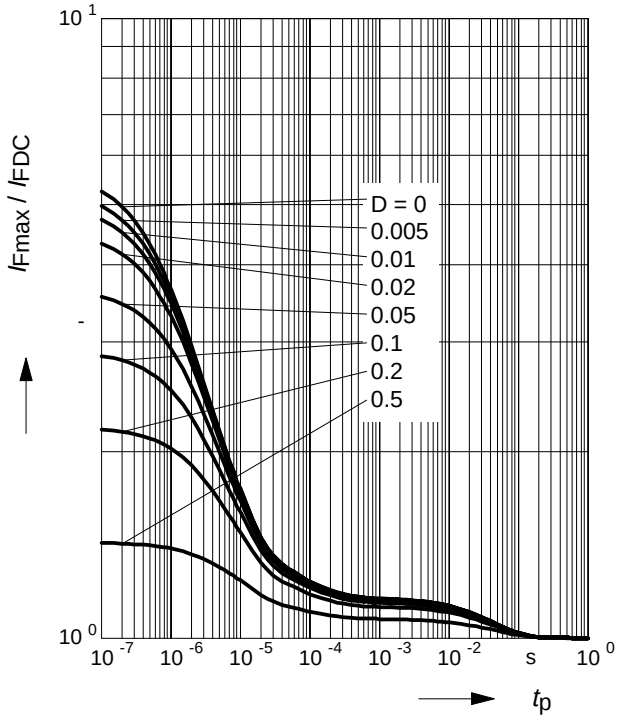


Permissible Pulse Load

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

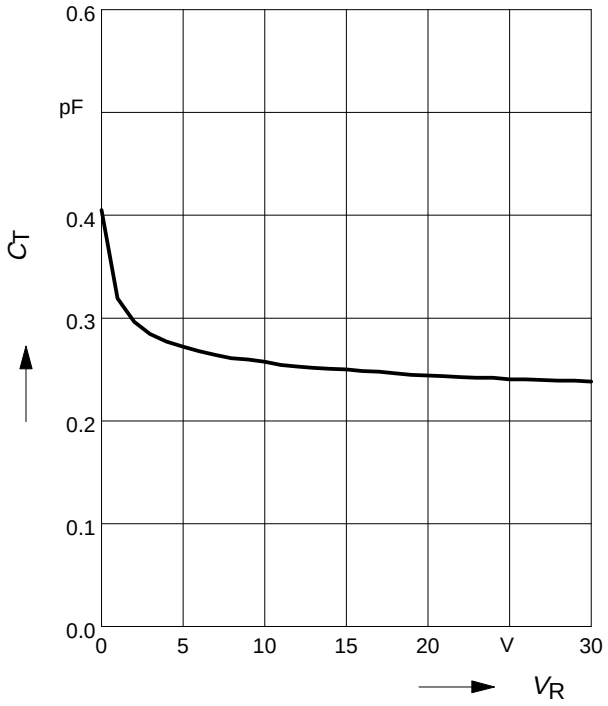


Permissiple pulse load $I_{Fmax}/I_{FDC} = f(t_p)$



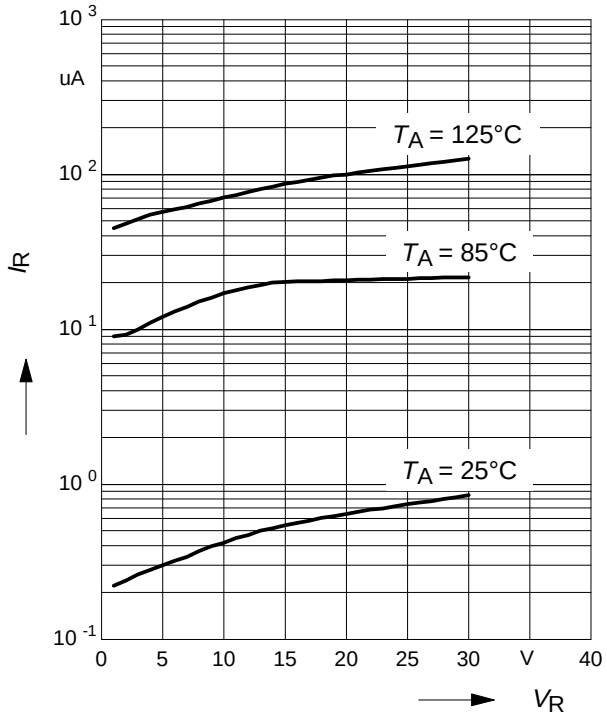
Diode capacitance $C_T = f(V_R)$

f = 1MHz



Reverse current $I_R = f(V_R)$

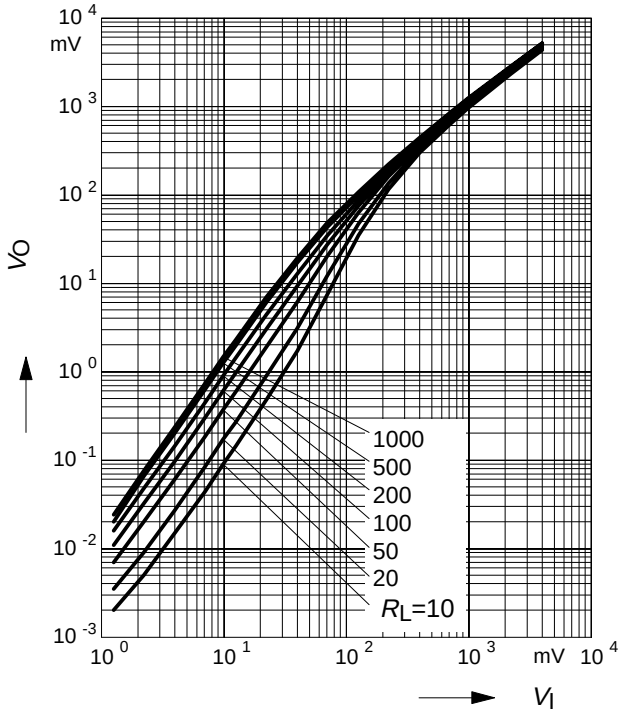
T_A = Parameter



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

f = 900 MHz

R_L = parameter in kΩ



Testcircuit