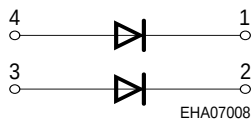
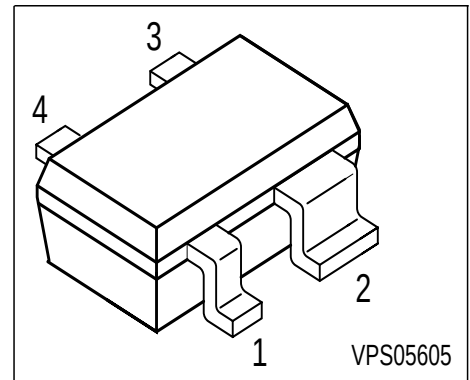


Silicon Schottky Diode

Preliminary data

- Low barrier diode for detectors up to GHz frequencies
- For high-speed switching applications
- Zero bias detector diode



ESD: Electrostatic discharge sensitive device, observe handling precaution!

Type	Marking	Pin Configuration				Package
BAT63-07W	63s	1=C1	2=C2	3=A2	4=A1	SOT343

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	3	V
Forward current	I_F	100	mA
Total power dissipation, $T_S = \text{tbd } ^\circ\text{C}$	P_{tot}	100	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

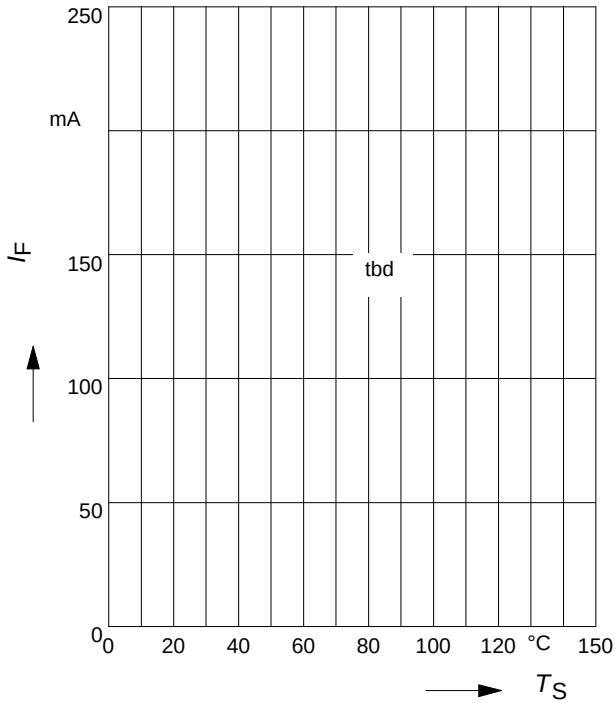
Junction - soldering point ¹⁾	R_{thJS}	$\leq \text{tbd}$	K/W
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¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified.

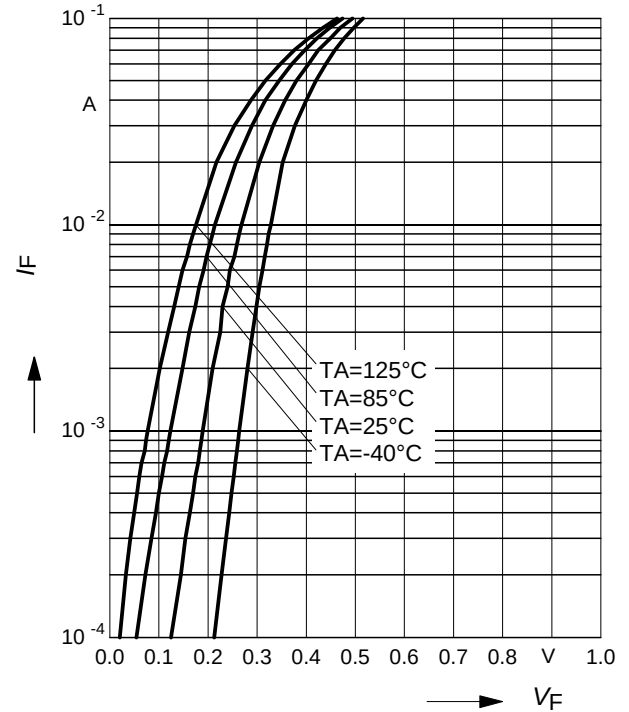
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current $V_R = 3\text{ V}$	I_R	-	-	10	μA
Forward voltage $I_F = 1\text{ mA}$	V_F	-	190	300	mV
AC characteristics					
Diode capacitance $V_R = 0.2\text{ V}, f = 1\text{ MHz}$	C_T	-	0.65	0.85	pF
Case capacitance $f = 1\text{ MHz}$	C_C	-	0.1	-	
Differential resistance $V_R = 0\text{ V}, f = 10\text{ kHz}$	R_0	-	30	-	k Ω
Series inductance	L_S	-	1.6	-	nH

Forward current $I_F = f(T_S)$



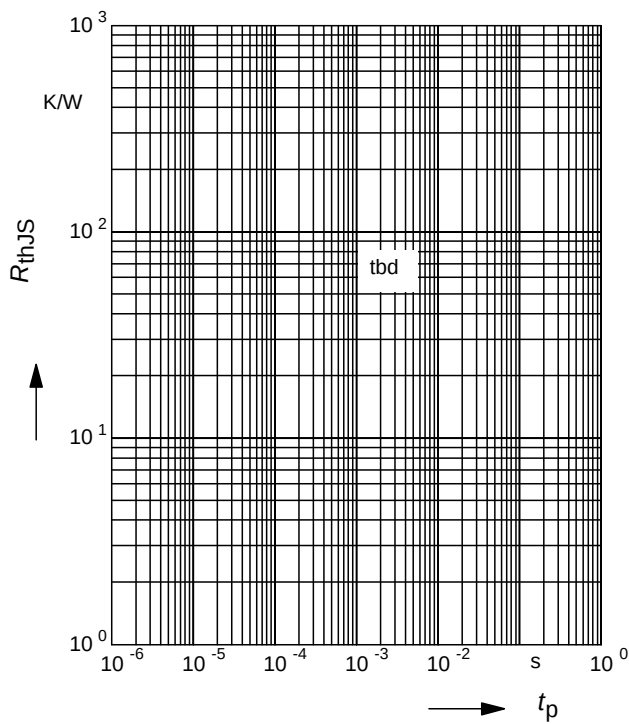
Forward current $I_F = f(V_F)$

$T_A = \text{parameter}$

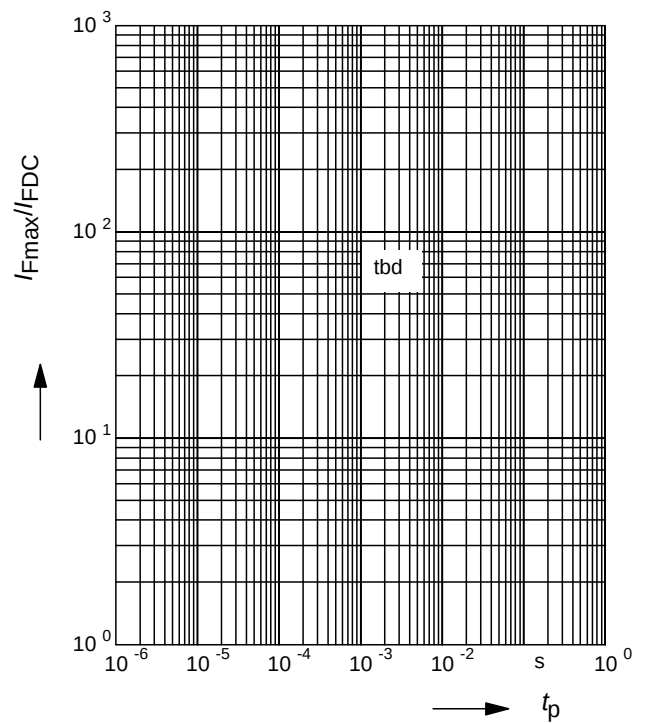


Permissible Pulse Load

$I_{F\max} / I_{FDC} = f(t_p)$

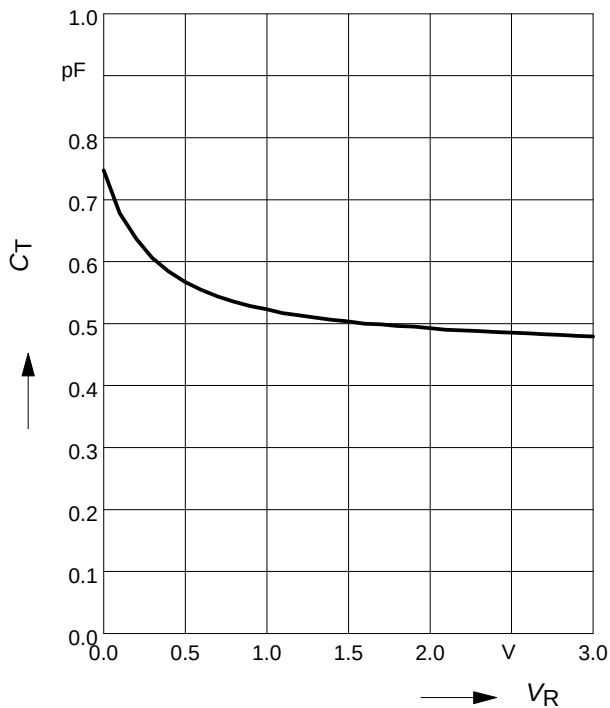


Permissible pulse load $I_{F\max}/I_{FDC} = f(t_p)$



Diode capacitance $C_T = f(V_R)$

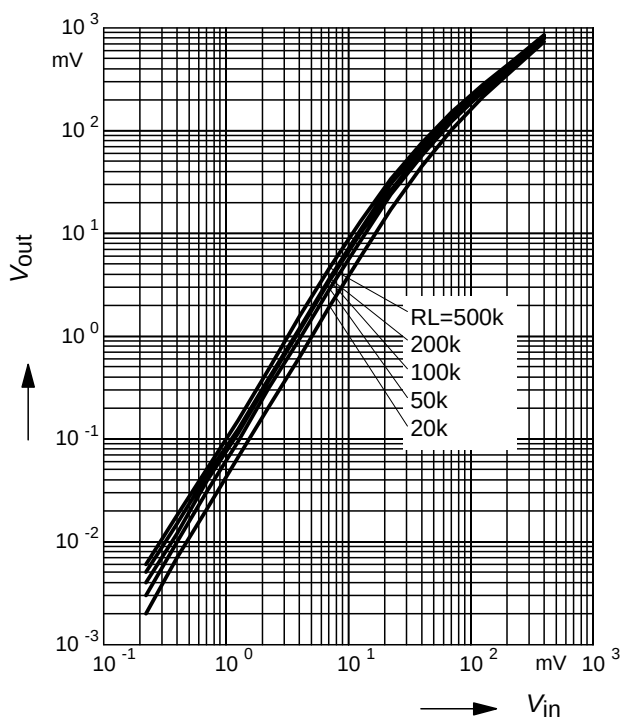
$f = 1\text{MHz}$



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

$f = 900\text{ MHz}$

$R_L = \text{parameter in k}\Omega$



Testcircuit:

