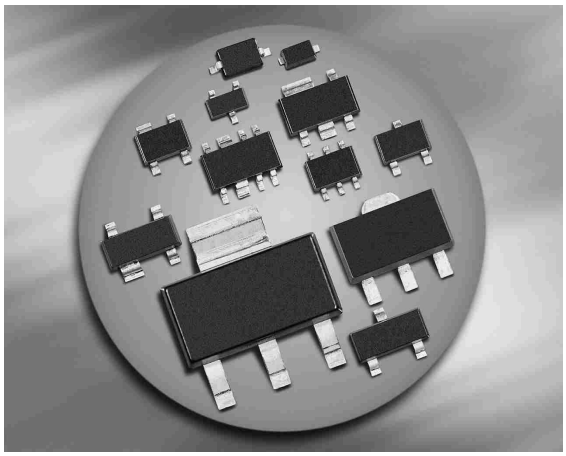
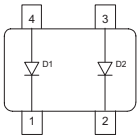
Silicon Schottky Diode

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



BAT63-07W



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

Type	Package	Configuration	L_S (nH)	Marking
BAT63-07WE6811	SOT343	parallel pair	1.6	63s

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	8	V
Forward current	I_F	100	mA
Total power dissipation $T_S \leq 103$ °C	P_{tot}	100	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point[1)]	R_{thJS}	≤ 470	K/W

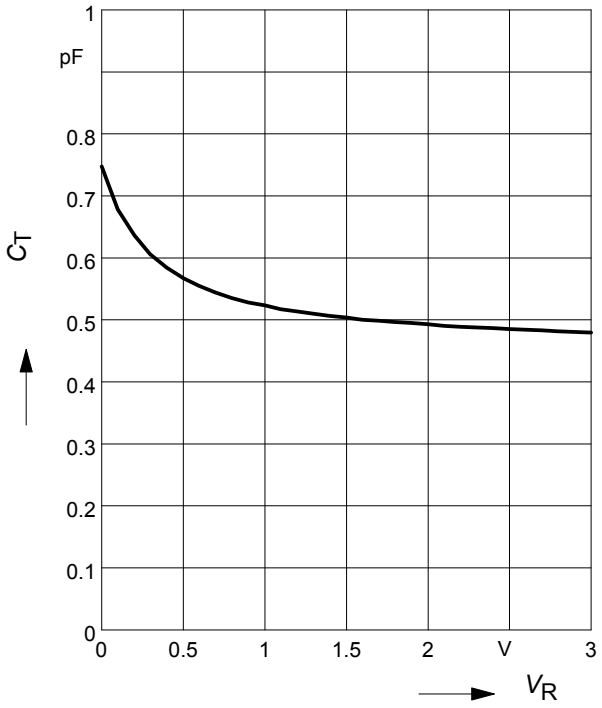
[1]For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse voltage I_R = 100 µA	V_R	8	10	-	V
Forward voltage I_F = 1 mA	V_F	-	190	300	mV
AC Characteristics					
Diode capacitance V_R = 0.2 V, f = 1 MHz	C_T	-	0.65	0.85	pF
Differential resistance V_R = 0 V, f = 10 kHz	R_0	-	30	-	kΩ

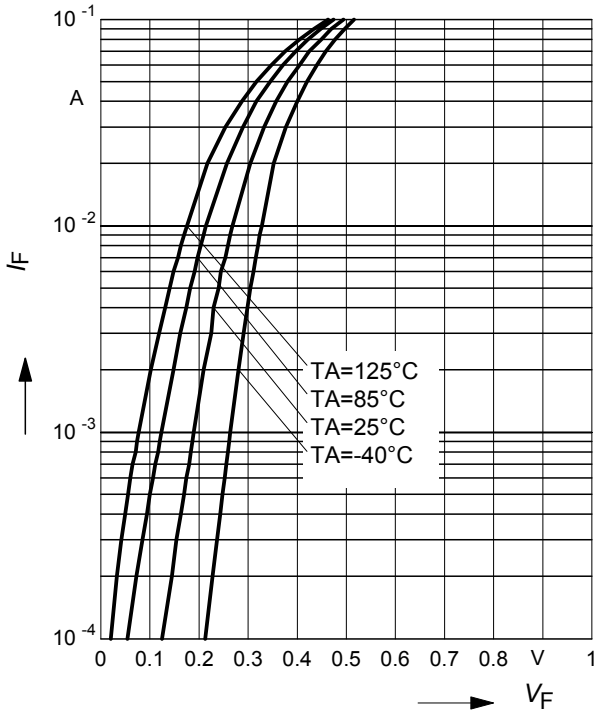
Diode capacitance $C_T = f(V_R)$

f = 1MHz

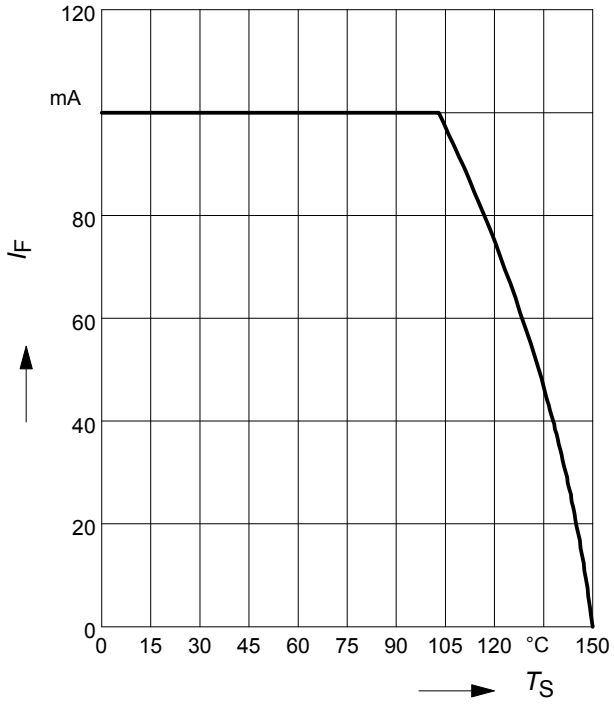


Forward current $I_F = f(V_F)$

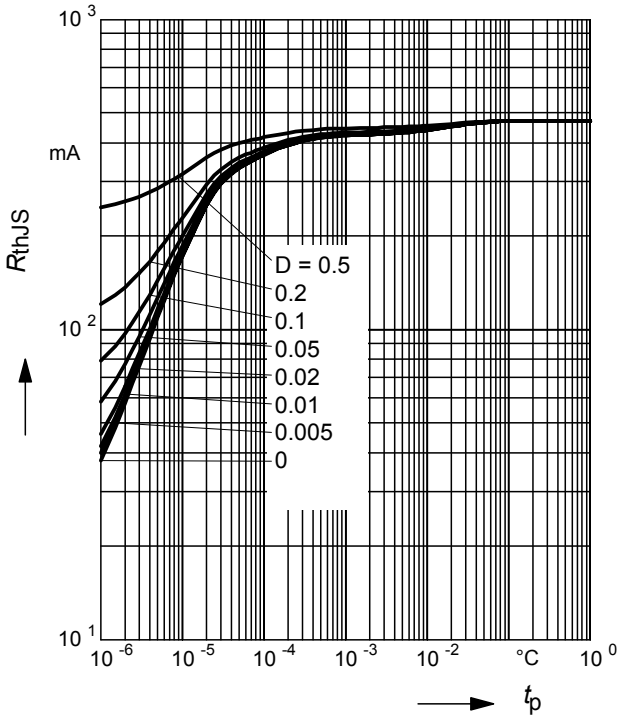
T_A = Parameter



Forward current $I_F = f(T_S)$

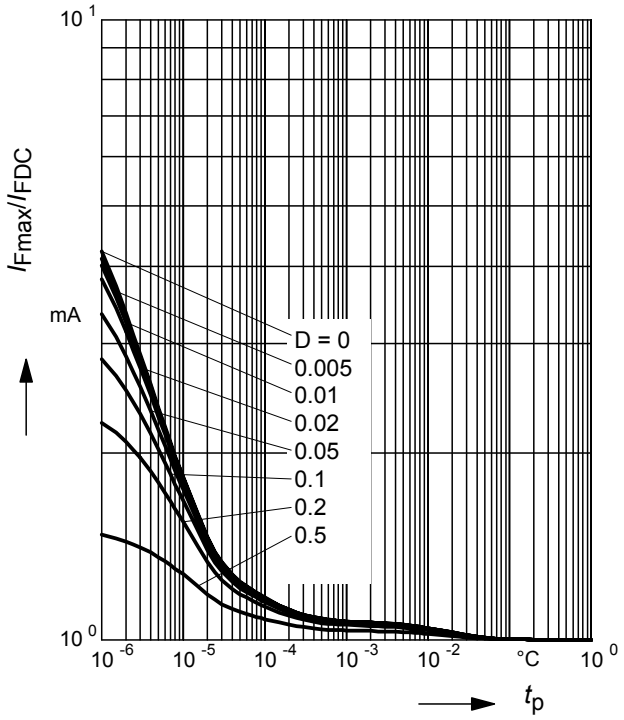


Permissible Puls Load $R_{thJS} = f(t_p)$



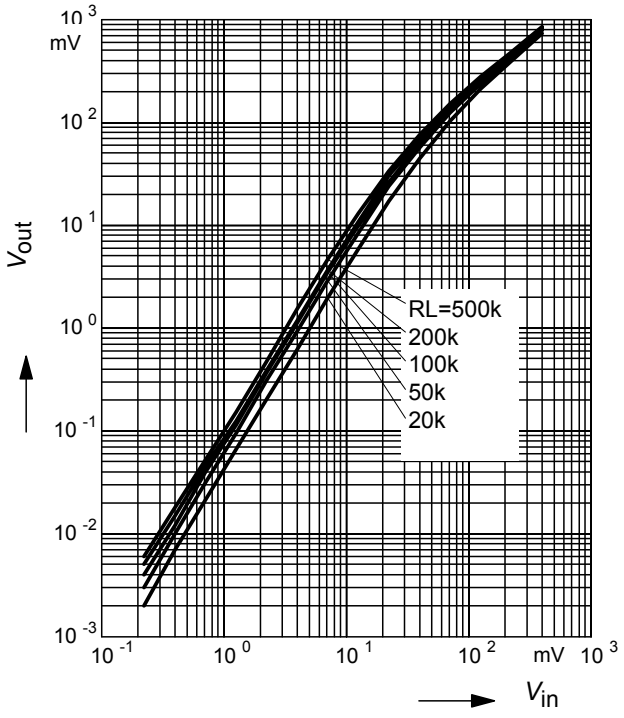
Permissible Pulse Load

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



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

R_L = Parameter



Testcircuit