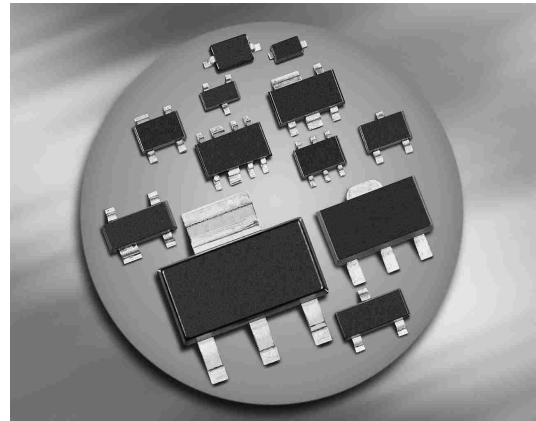
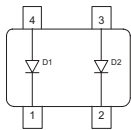


Silicon Schottky Diode

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


BAT63-07W


ESD: Electrostatic discharge 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 $T_S \leq 103\text{ °C}$	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

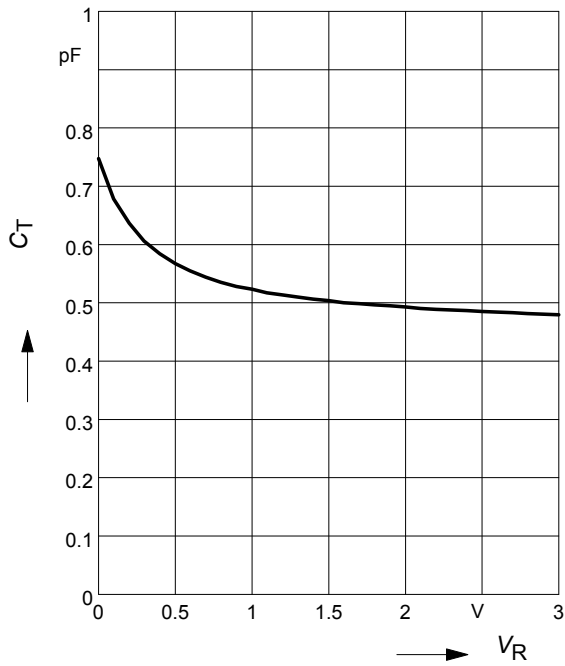
¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse voltage $I_R = 100 \mu\text{A}$	V_R	8	10	-	V
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
Differential resistance $V_R = 0 \text{ V}, f = 10 \text{ kHz}$	R_0	-	30	-	k Ω

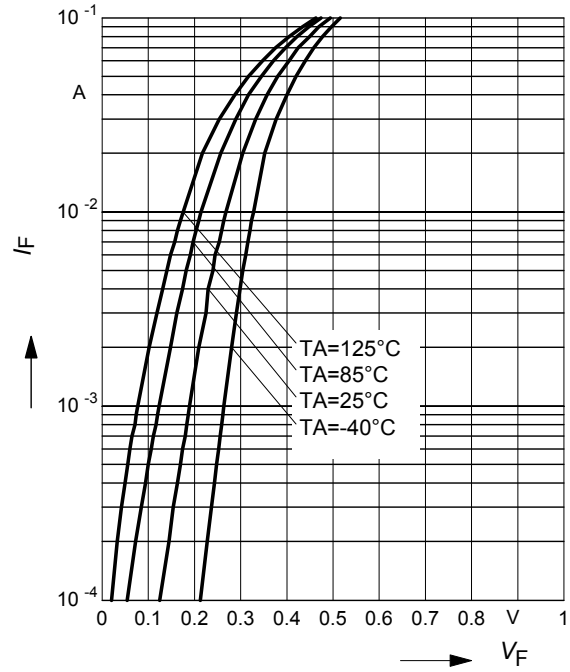
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$

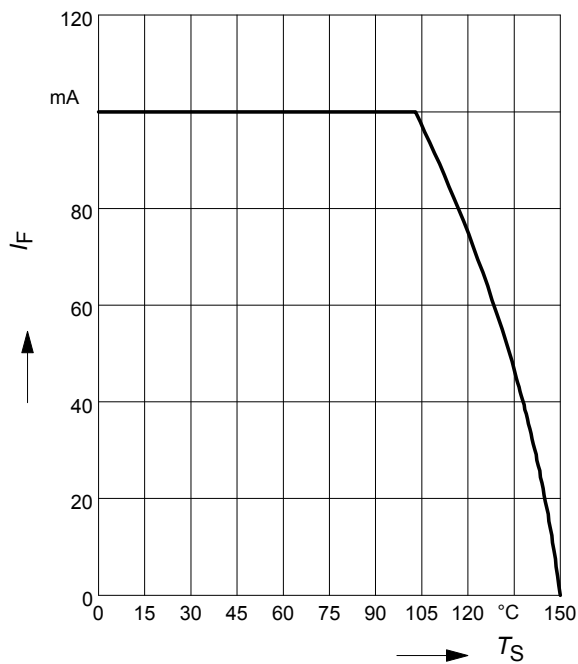


Forward current $I_F = f(V_F)$

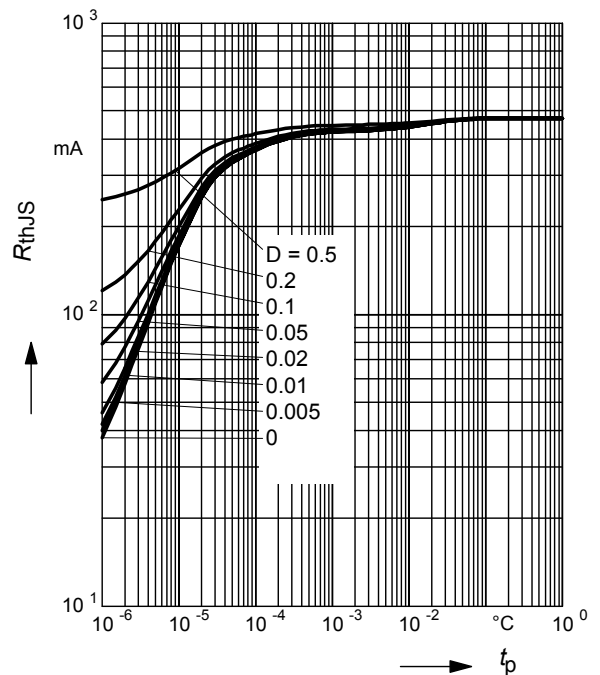
$T_A = \text{Parameter}$



Forward current $I_F = f(T_S)$

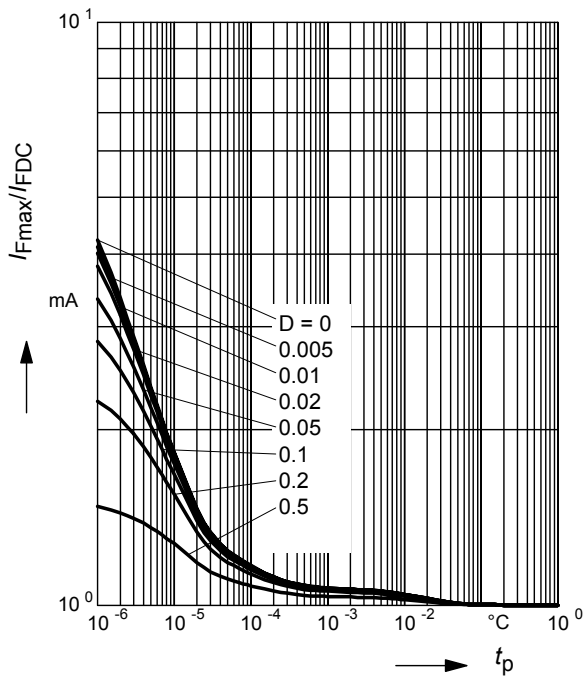


Permissible Puls Load $R_{thJS} = f(t_p)$



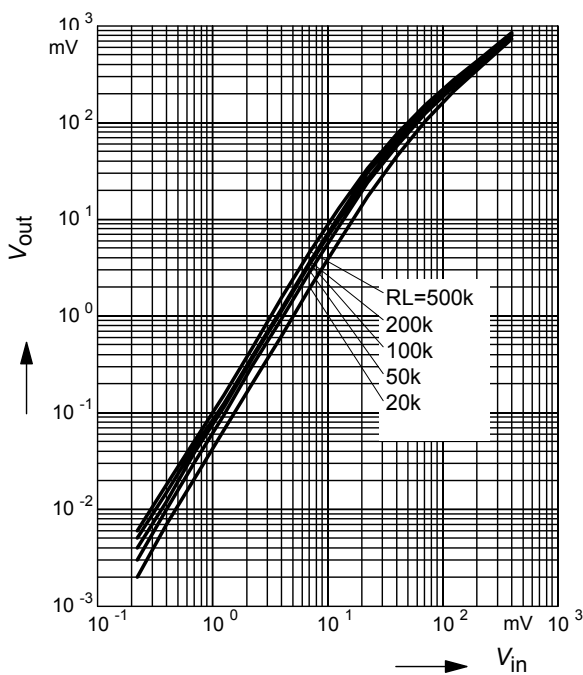
Permissible Pulse Load

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



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

$R_L =$ Parameter



Testcircuit

