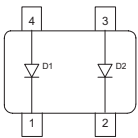


**Silicon Schottky Diode**

- 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 <sup>1)</sup>	$R_{thJS}$	$\leq 470$	K/W

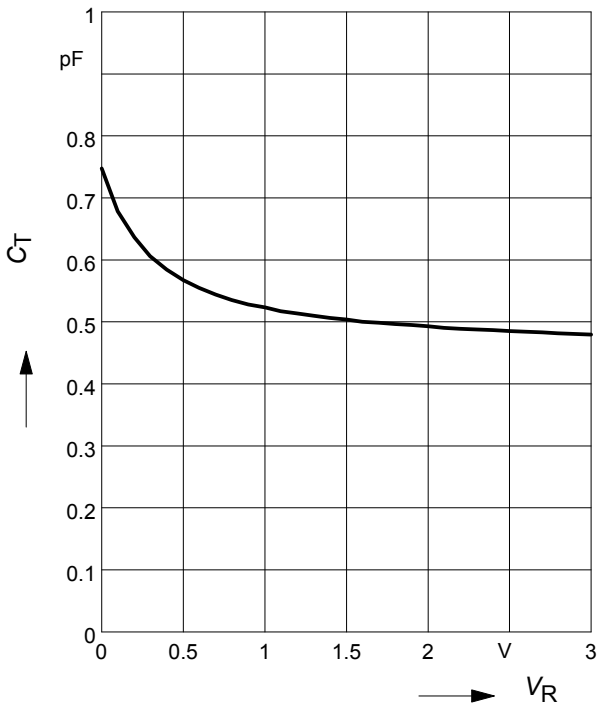
<sup>1)</sup>For calculation of  $R_{thJA}$  please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC Characteristics</b>					
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
<b>AC Characteristics</b>					
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 $\Omega$

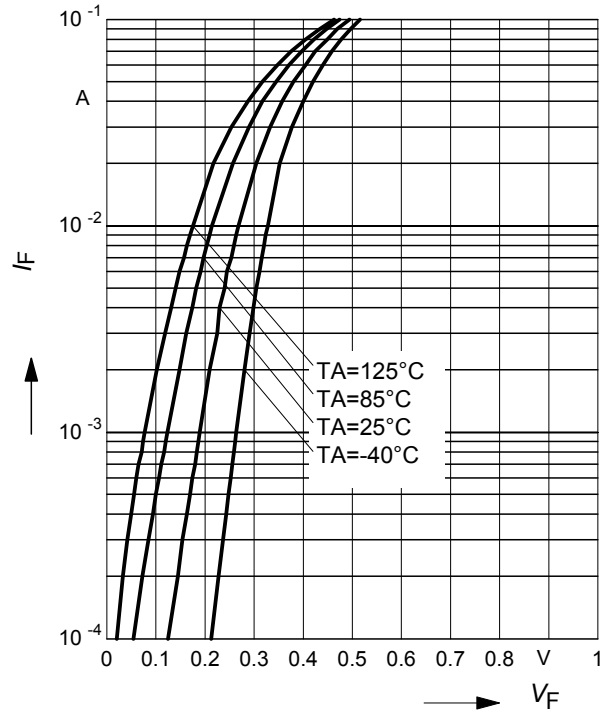
**Diode capacitance  $C_T = f(V_R)$**

$f = 1\text{MHz}$

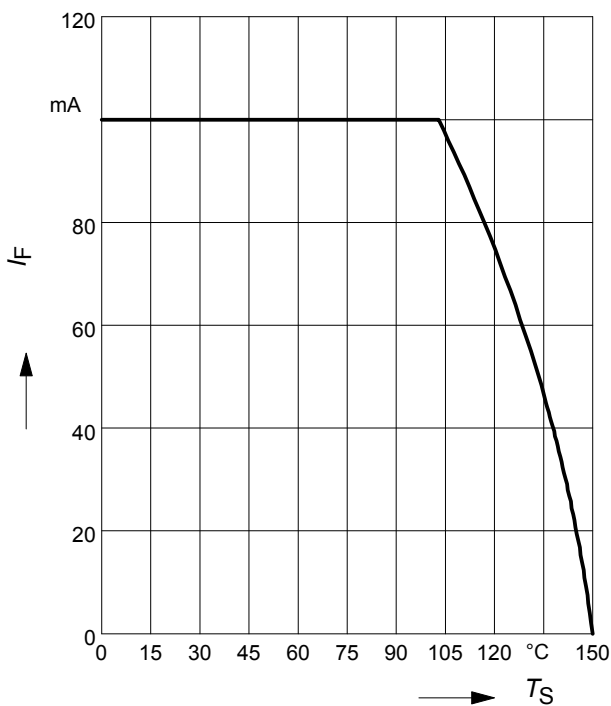


**Forward current  $I_F = f(V_F)$**

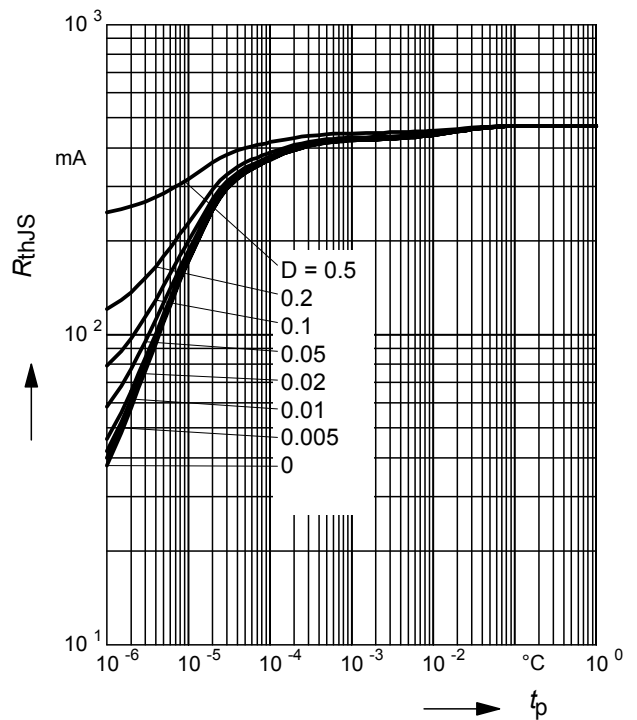
$T_A = \text{Parameter}$



**Forward current  $I_F = f(T_S)$**

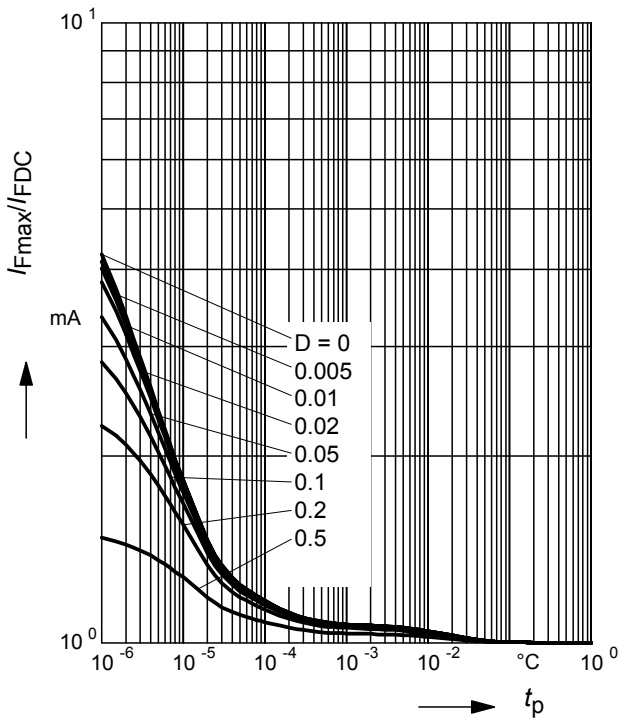


**Permissible Puls Load  $R_{thJS} = f(t_p)$**



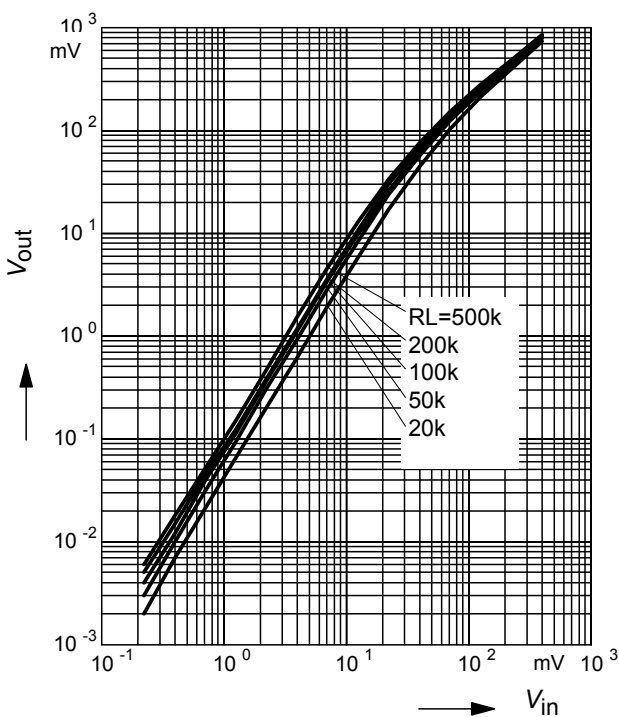
**Permissible Pulse Load**

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

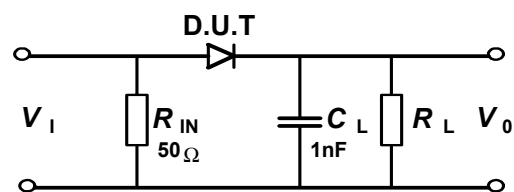


**Rectifier voltage  $V_{out} = f(V_{in})$**

$R_L$  = Parameter



**Testcircuit**



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