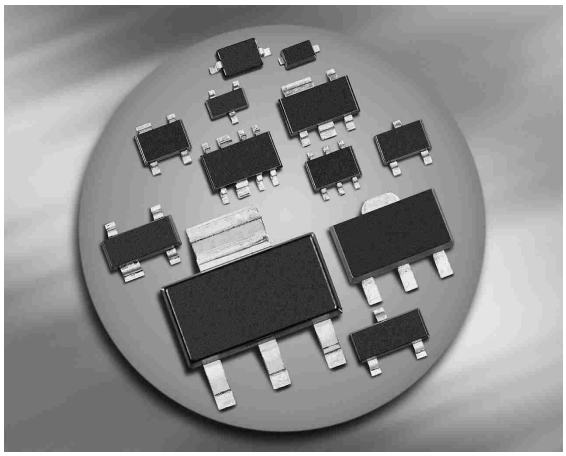
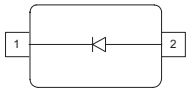
Silicon Schottky Diode

- High current rectifier Schottky diode with extreme low V_F drop (typ. 0.12V at I_F = 10mA)
- For power supply applications
- For clamping and protection in low voltage applications
- For detection and step-up-conversion



BAT60A



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

Type	Package	Configuration	Marking
BAT60A	SOD323	single	white/3

Maximum Ratings at T_A = 25°C, unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	10	V
Forward current	I_F	3	A
Surge forward current, ($t \leq$ 10ms)	I_{FSM}	5	
Total power dissipation $T_S \leq$ 28°C	P_{tot}	1350	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}	≤ 90	K/W

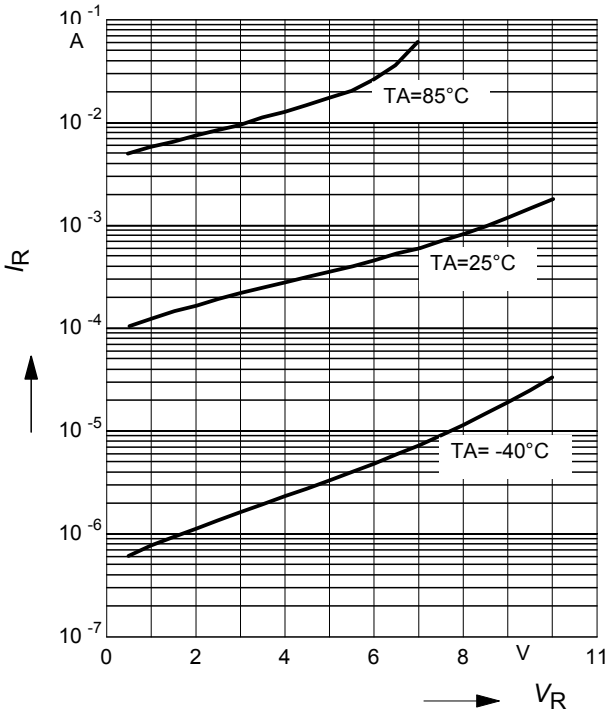
[1]For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current	I_R				mA
V_R = 5 V		-	0.3	1	
V_R = 8 V		-	0.6	2.6	
V_R = 5 V, T_A = 80 °C		-	18	-	
Forward voltage	V_F				V
I_F = 10 mA		0.1	0.12	0.15	
I_F = 100 mA		0.15	0.2	0.23	
I_F = 1000 mA		0.22	0.3	0.37	
AC Characteristics					
Diode capacitance	C_T	-	20	35	pF
V_R = 5 V, f = 1 MHz					

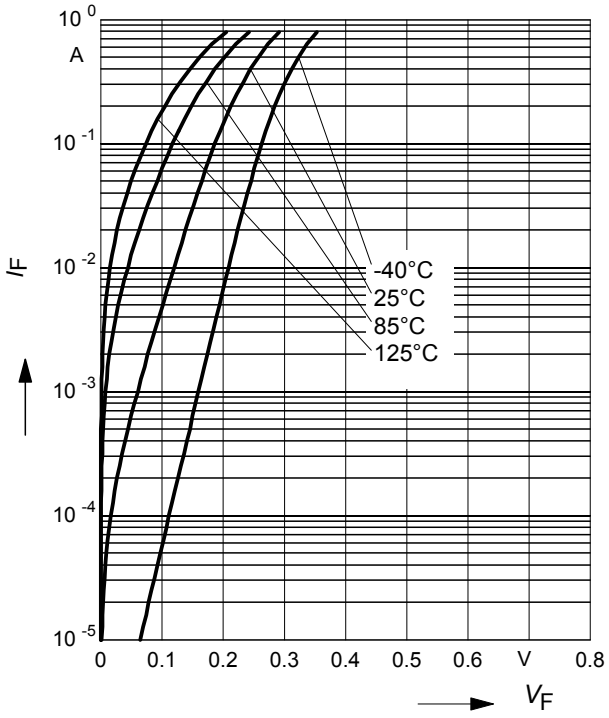
Reverse current $I_R = f(V_R)$

T_A = Parameter

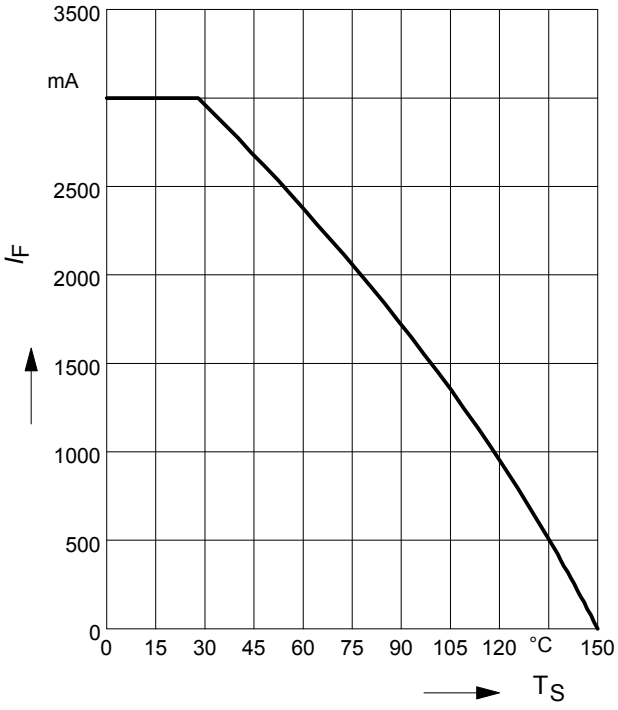


Forward current $I_F = f(V_F)$

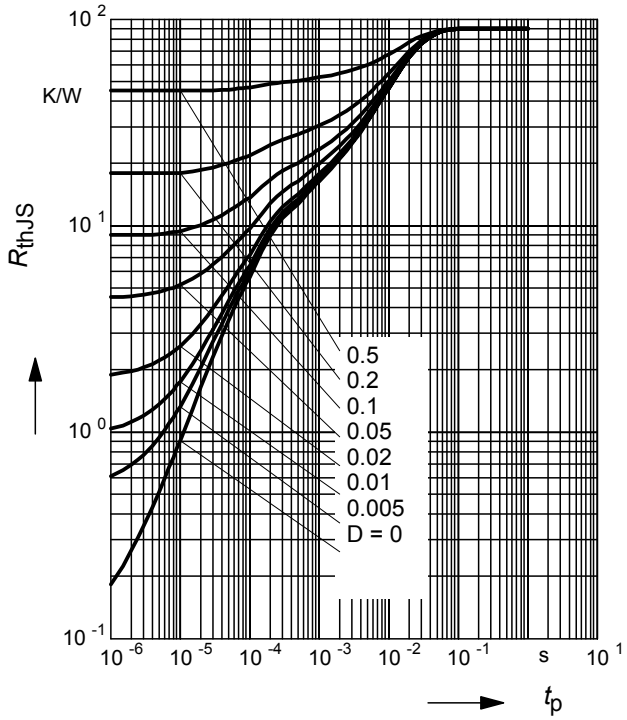
T_A = Parameter



Forward current $I_F = f(T_S)$



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



Permissible Pulse Load

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