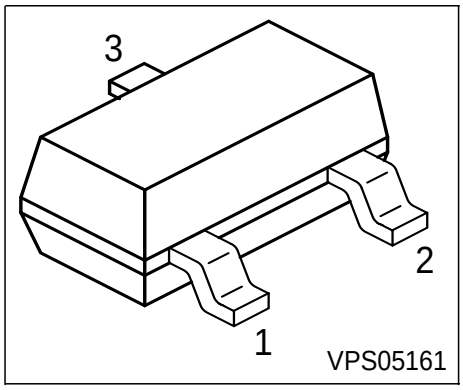
Silicon Schottky Diode

- Rectifier Schottky diode for telecommunication and industrial applications
- High reverse voltage
- For power supply
- For clamping and protection in high voltage applications



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

Type	Marking	Pin Configuration			Package
BAT240A	4Ms	1=C1/A2	2 = C2	3 = A1	SOT23

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	240	V
Peak reverse voltage	V_{RM}	250	
Forward current	I_F	400	mA
Surge forward current (t ≤ 10ms)	I_{FSM}	1	A
Total power dissipation, T_S = 28 °C	P_{tot}	400	mW
Junction temperature	T_j	80	°C
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

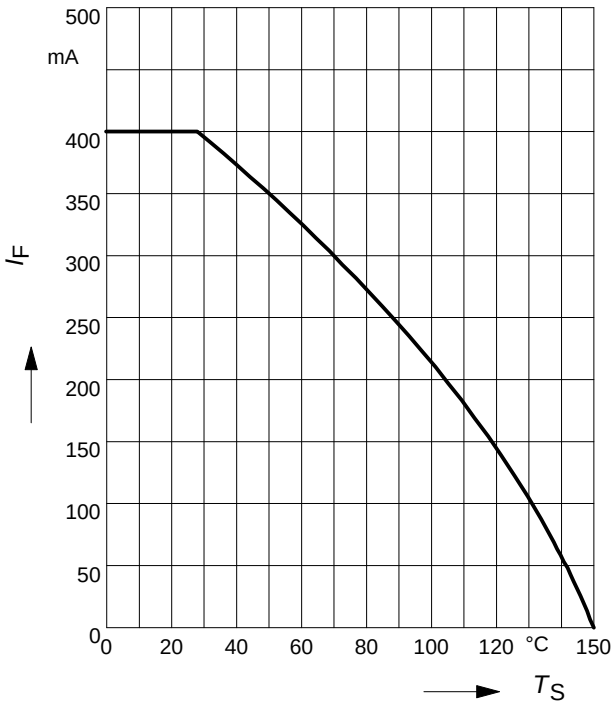
Junction - soldering point[1)]	R_{thJS}	≤ 305	K/W

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

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

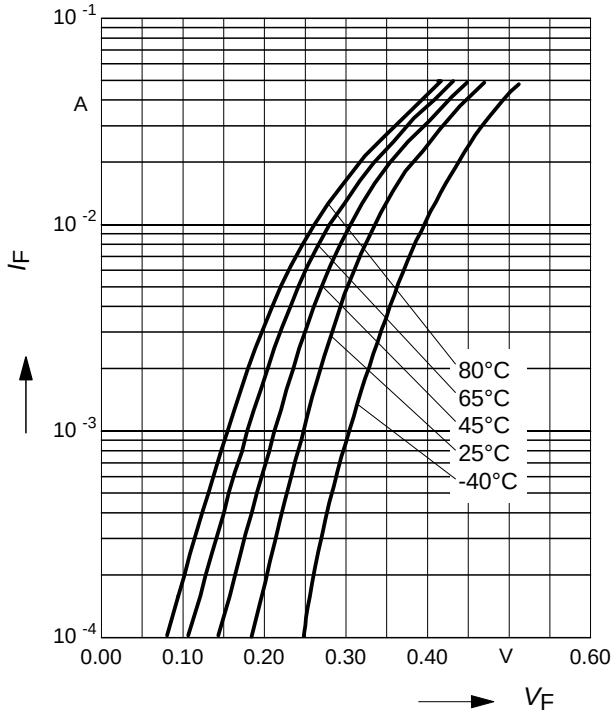
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)}$ = 500 µA	$V_{(BR)}$	240	-	-	V
Reverse current	I_R				µA
V_R = 200 V		-	5	-	
V_R = 240		-	-	500	
Forward voltage	V_F				V
I_F = 10 mA		-	0.325	-	
I_F = 20 mA		-	0.37	-	
I_F = 50 mA		-	0.47	-	
AC characteristics					
Diode capacitance V_R = 10 V, f = 1 MHz	C_T	-	11.5	-	pF

Forward current $I_F = f(T_S)$

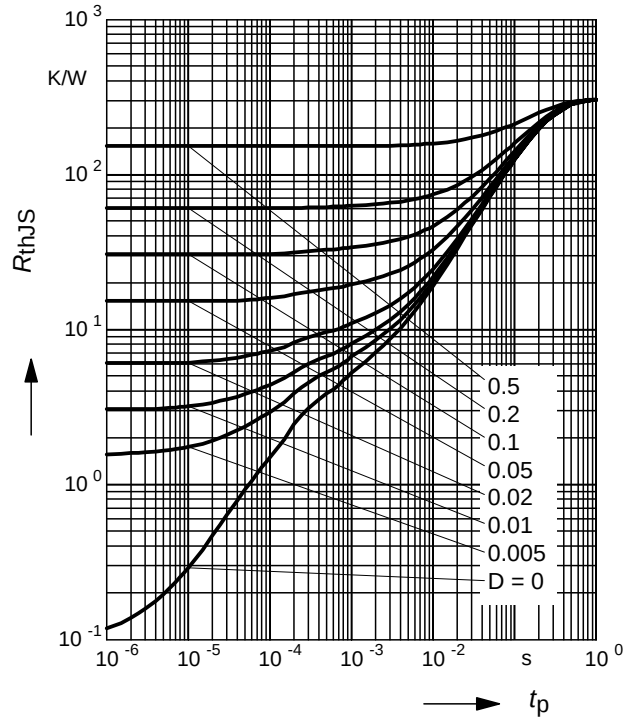


Forward current $I_F = f(V_F)$

T_A = parameter

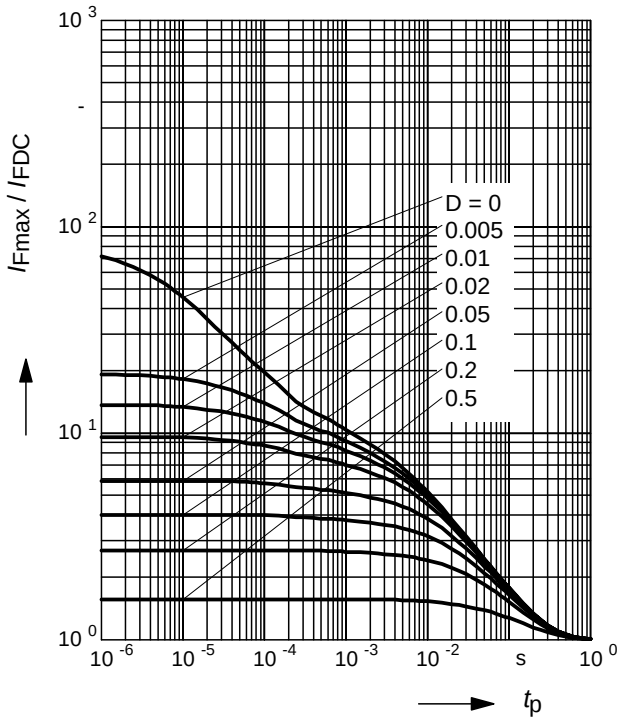


Permissible Pulse Load $R_{thJS} = f(t_p)$



Permissible Pulse Load

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



Derating curve reverse voltage

$V_R = f(T_A)$; t_p = Parameter

Duty cycle < 0.01