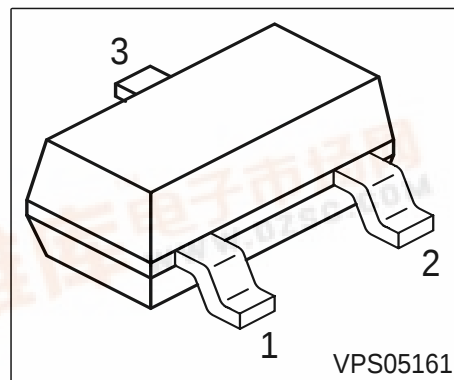




BAT240A

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: Electrostatic discharge 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	V
Forward current	I_F	400	mA
Surge forward current ($t \leq 10\text{ms}$)	I_{FSM}	1	A
Total power dissipation, $T_S = 28^\circ\text{C}$	P_{tot}	400	mW
Junction temperature	T_j	80	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

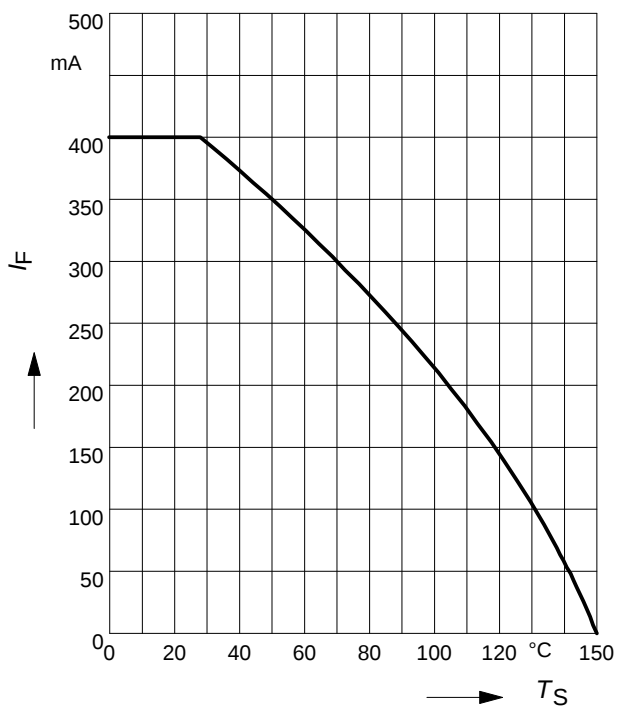
Junction - soldering point ¹⁾	R_{thJS}	≤ 305	K/W
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¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

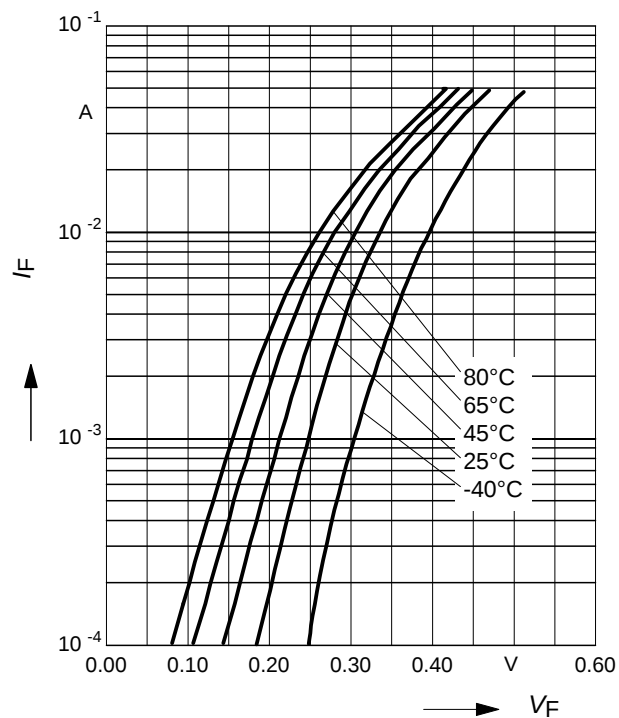
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)} = 500\text{ }\mu\text{A}$	$V_{(BR)}$	240	-	-	V
Reverse current $V_R = 200\text{ V}$ $V_R = 240$	I_R	- -	5 -	- 500	μA
Forward voltage $I_F = 10\text{ mA}$ $I_F = 20\text{ mA}$ $I_F = 50\text{ mA}$	V_F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

Forward current $I_F = f(T_S)$

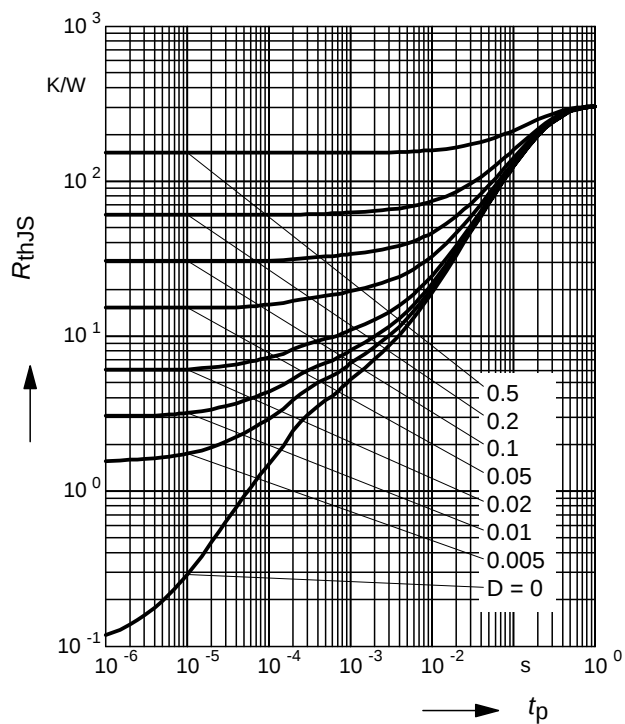


Forward current $I_F = f(V_F)$

$T_A = \text{parameter}$

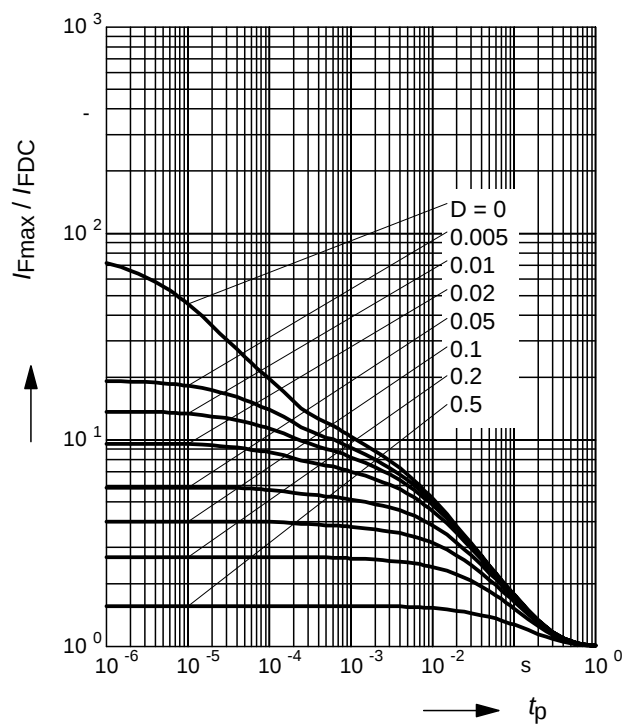


Permissible Pulse Load $R_{thJS} = f(t_p)$



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

