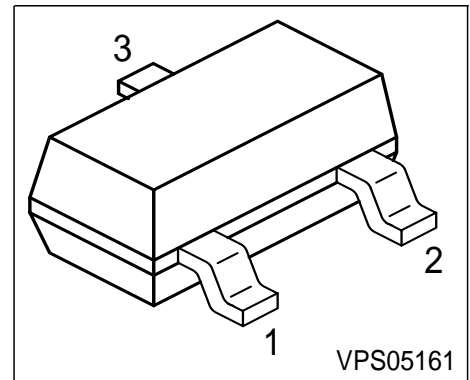


**Silicon Schottky Diode**

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

**Thermal Resistance**

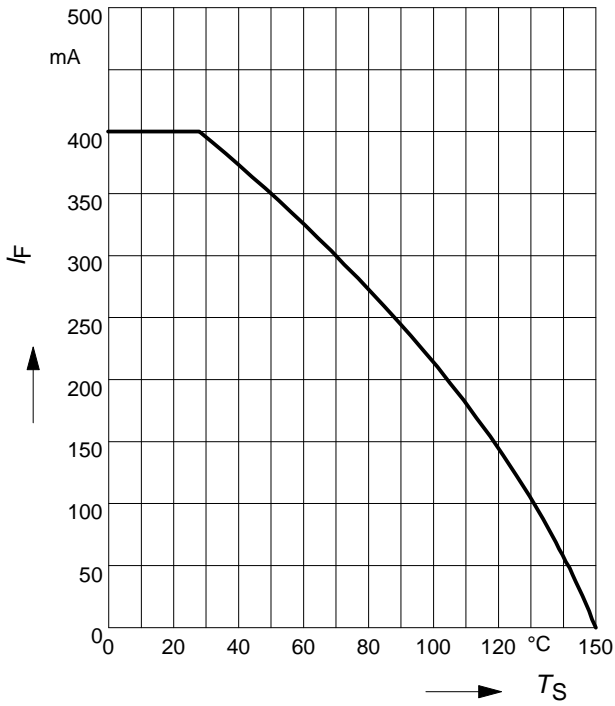
Junction - soldering point <sup>1)</sup>	$R_{thJS}$	$\leq 305$	K/W
--	------------	------------	-----

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

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

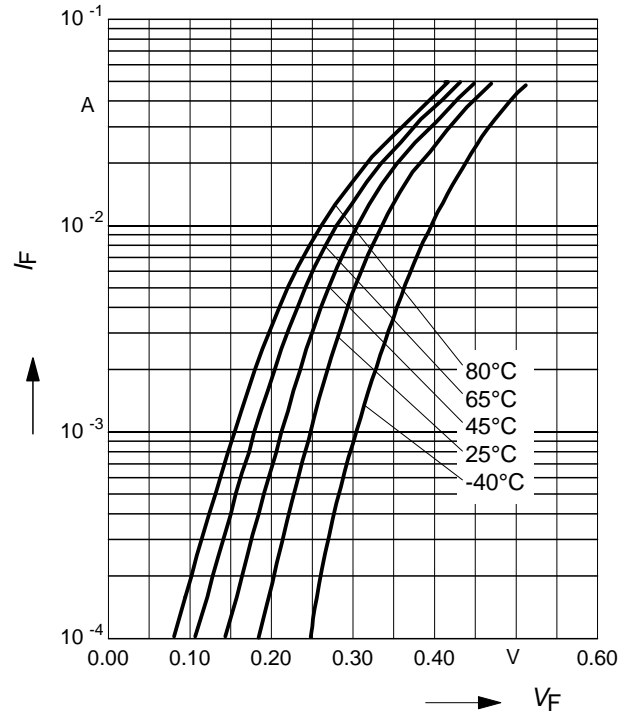
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC characteristics</b>					
Breakdown voltage $I_{(BR)} = 500\ \mu\text{A}$	$V_{(BR)}$	240	-	-	V
Reverse current $V_R = 200\ \text{V}$ $V_R = 240$	$I_R$	- -	5 -	- 500	$\mu\text{A}$
Forward voltage $I_F = 10\ \text{mA}$ $I_F = 20\ \text{mA}$ $I_F = 50\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

Forward current  $I_F = f(T_S)$

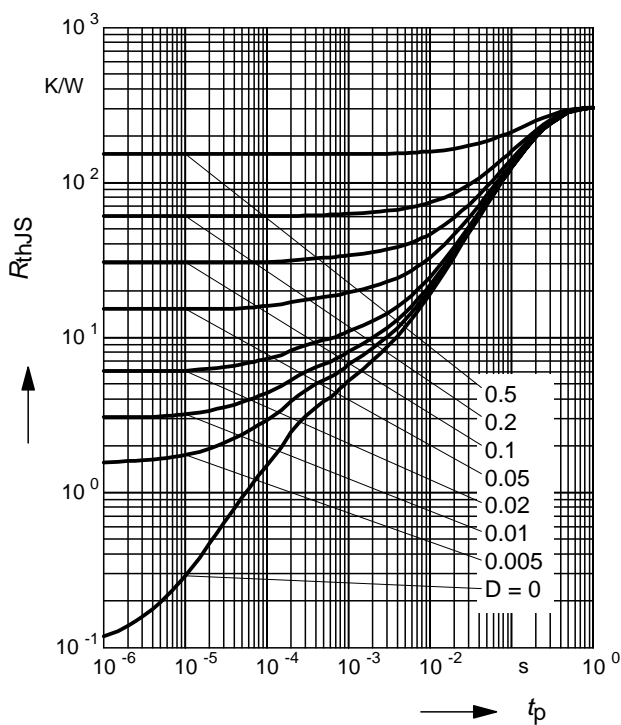


Forward current  $I_F = f(V_F)$

$T_A = \text{parameter}$

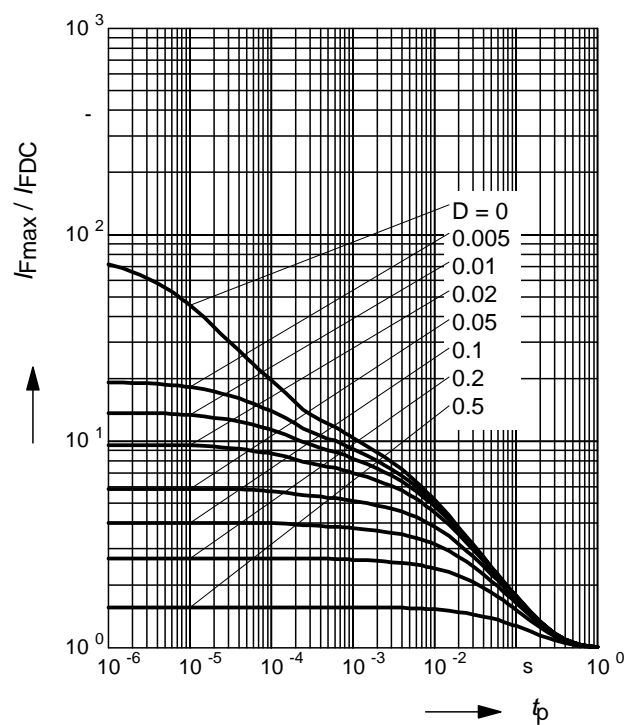


Permissible Pulse Load  $R_{thJS} = f(t_p)$



Permissible Pulse Load

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



**Derating curve reverse voltage**

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

Duty cycle  $< 0.01$

