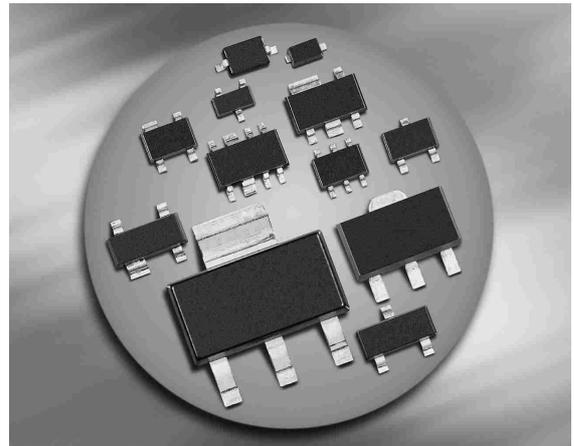
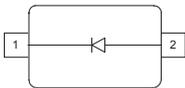


Silicon Schottky Diode

- Medium current rectifier Schottky diode
- Low forward voltage at 200mA
- High reverse voltage



BAS52-02V



ESD: Electrostatic discharge sensitive device, observe handling precaution!

Type	Package	Configuration	Marking
BAS52-02V	SC79	single	y

Maximum Ratings at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	45	V
Forward current	I_F	750	mA
Surge forward current (t = 100µs)	I_{FSM}	2000	
Average forward current (50/60Hz, sinus)	I_{FAV}	500	
Total power dissipation $T_S \leq 110^\circ\text{C}$	P_{tot}	500	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}	≤ 60	K/W

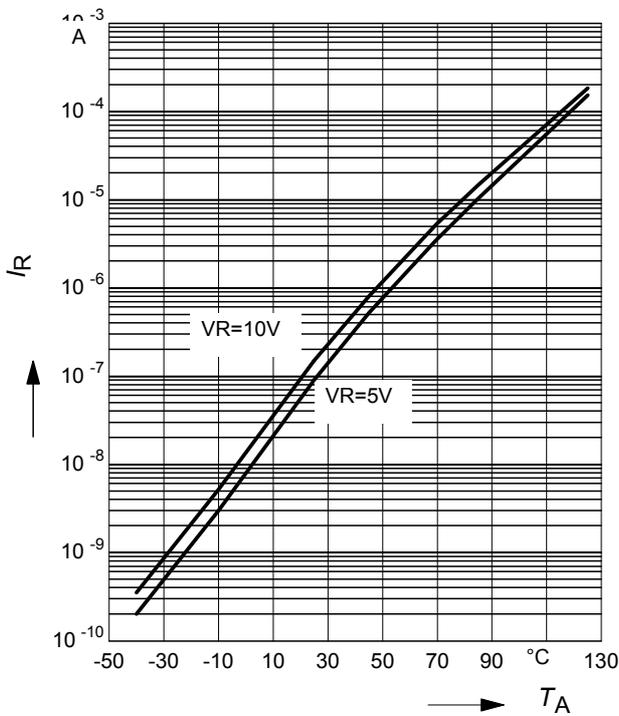
¹For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current	I_R	-	-	10	μA
$V_R = 45\text{ V}$		-	-	30	
$V_R = 5\text{ V}, T_A = 70^\circ\text{C}$		-	-	1	
$V_R = 10\text{ V}, T_A = 85^\circ\text{C}$		-	-	80	
Forward voltage	V_F	-	335	420	mV
$I_F = 10\text{ mA}$		-	430	530	
$I_F = 100\text{ mA}$		400	500	600	
$I_F = 200\text{ mA}$					
AC Characteristics					
Diode capacitance	C_T	-	5	10	pF
$V_R = 10\text{ V}, f = 1\text{ MHz}$					

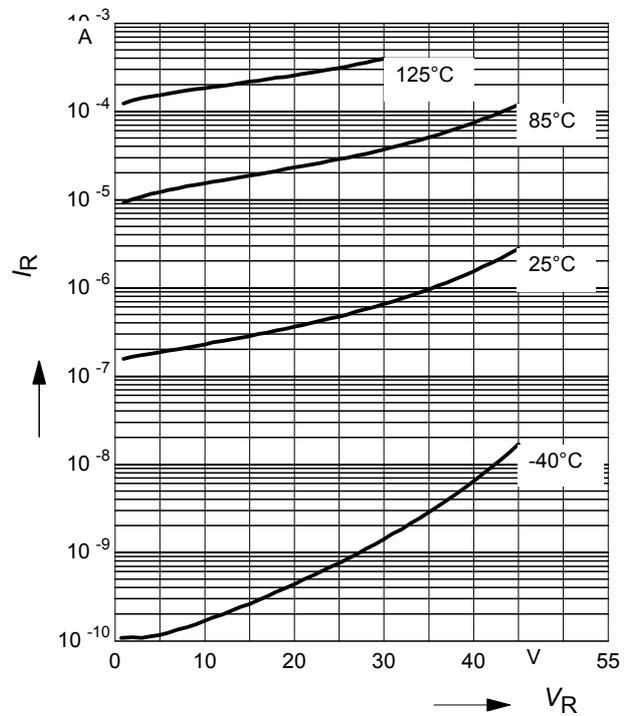
Reverse current $I_R = f(T_A)$

$V_R = \text{Parameter}$



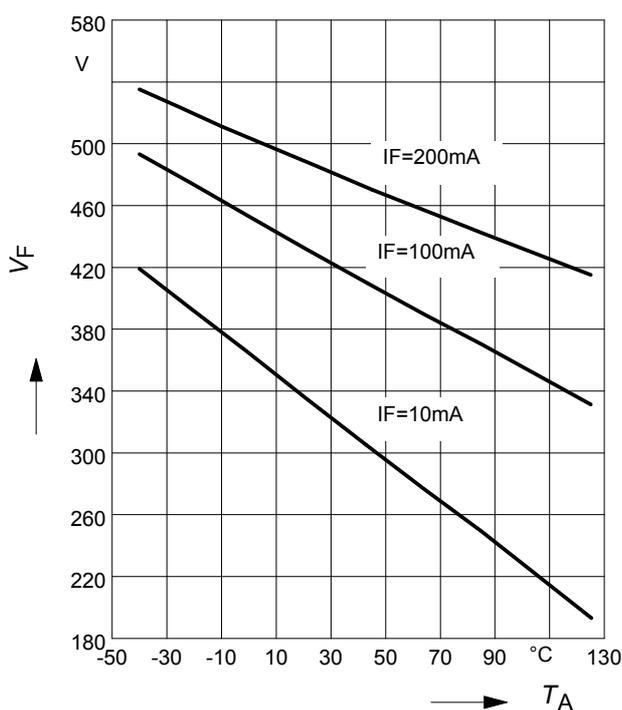
Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



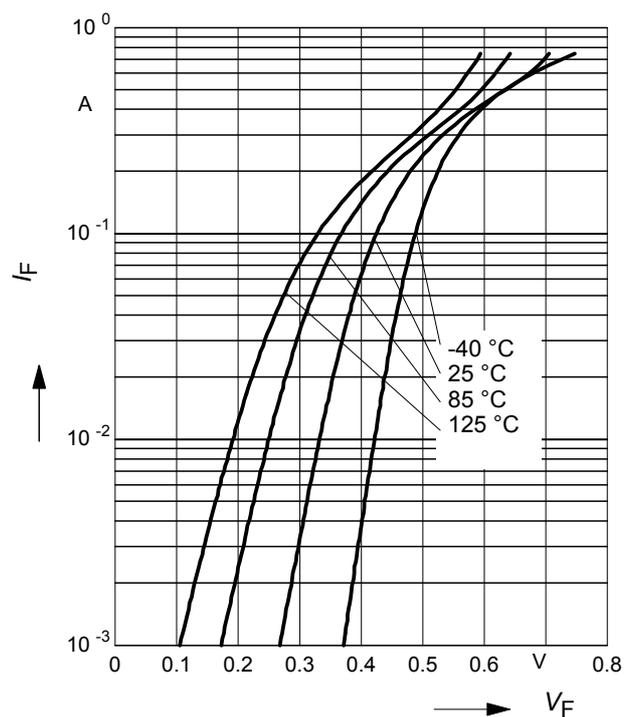
Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$



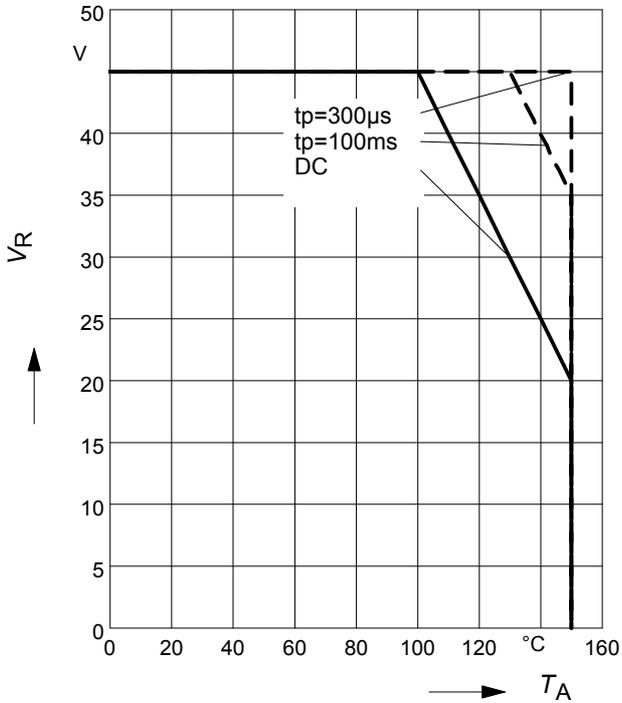
Forward current $I_F = f(V_F)$

$T_A = \text{Parameter}$

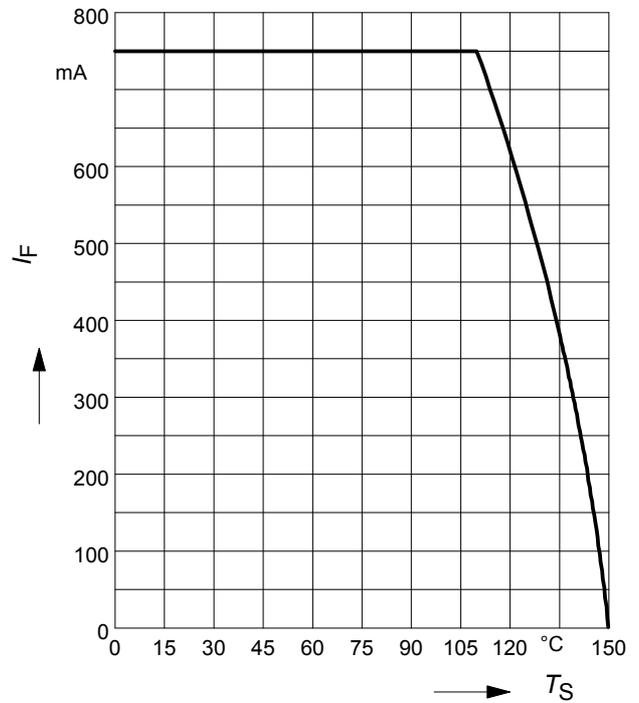


Permissible Reverse voltage $V_R = f(T_A)$

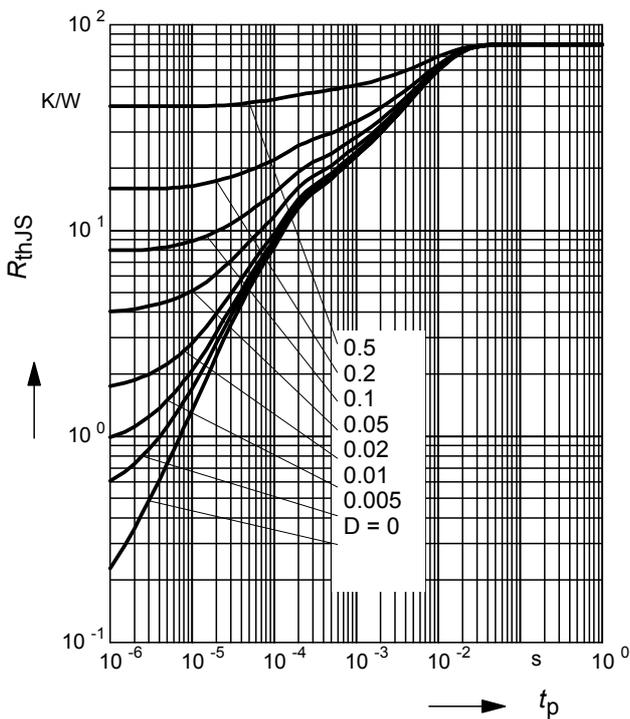
t_p = Parameter
Duty cycle < 0.01



Forward current $I_F = f(T_S)$



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



Permissible Pulse Load

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

