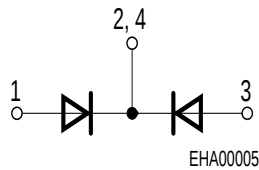
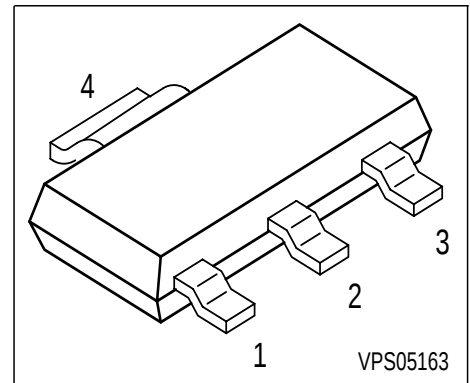


Silicon Switching Diodes

- Switching applications
- High breakdown voltage
- Common cathode



Type	Marking	Pin Configuration				Package
BAS79A	BAS 79A	1 = A1	2=C1/2	3 = A2	4=C1/2	SOT223
BAS79B	BAS 79B	1 = A1	2=C1/2	3 = A2	4=C1/2	SOT223
BAS79C	BAS 79C	1 = A1	2=C1/2	3 = A2	4=C1/2	SOT223
BAS79D	BAS 79D	1 = A1	2=C1/2	3 = A2	4=C1/2	SOT223

Maximum Ratings

Parameter	Symbol	BAS 79A	BAS 79B	BAS 79C	BAS 79D	Unit
Diode reverse voltage	V_R	50	100	200	400	V
Peak reverse voltage	V_{RM}	50	100	200	400	
Forward current	I_F	1				A
Peak forward current	I_{FM}	1				
Surge forward current, t = 1 μs	I_{FS}	10				
Total power dissipation, $T_S = 114\text{ °C}$	P_{tot}	1.2				W
Junction temperature	T_j	150				°C
Storage temperature	T_{stg}	-65 ... 150				

Thermal Resistance

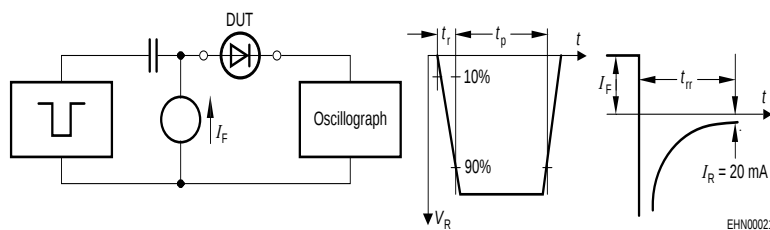
Junction - soldering point ¹⁾	R_{thJS}	≤ 30	K/W
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¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit	
		min.	typ.	max.		
DC characteristics						
Breakdown voltage $I_{(BR)} = 100\ \mu\text{A}$ BAS79A BAS79B BAS79C BAS79D	$V_{(BR)}$	50 100 200 400	- - - -	- - - -	V	
Forward voltage $I_F = 1\ \text{A}$ $I_F = 2\ \text{A}$	V_F	- -	- -	1.6 2		
Reverse current $V_R = V_{Rmax}$	I_R	-	-	1		μA
Reverse current $V_R = V_{Rmax},\ T_A = 150\ ^\circ\text{C}$	I_R	-	-	50		
AC characteristics						
Diode capacitance $V_R = 0\ \text{V},\ f = 1\ \text{MHz}$	C_D	-	10	-	pF	
Reverse recovery time $I_F = 200\ \text{mA},\ I_R = 200\ \text{mA},\ R_L = 100\ \Omega,$ measured at $I_R = 200\text{mA}$	t_{rr}	-	1	-	μs	

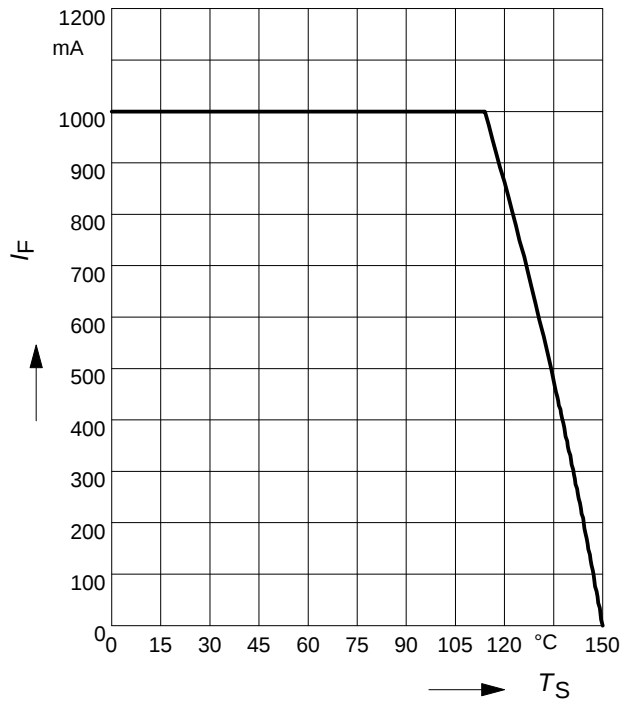
Test circuit for reverse recovery time



Pulse generator: $t_p = 10\ \mu\text{s}$, $D = 0.05$,
 $t_r = 0.6\ \text{ns}$, $R_i = 50\ \Omega$

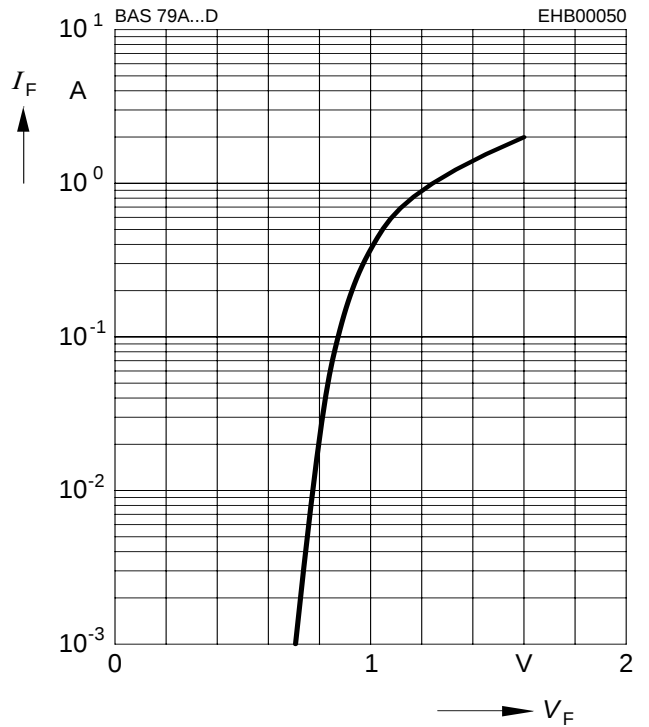
Oscilloscope: $R = 50\ \Omega$, $t_r = 0.35\ \text{ns}$,
 $C \leq 1\ \text{pF}$

Forward current $I_F = f(T_S)$



Forward current $I_F = f(V_F)$

$T_A = 25^\circ\text{C}$



Reverse current $I_R = f(T_A)$

$V_R = V_{Rmax}$

