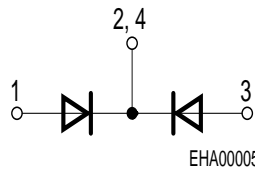
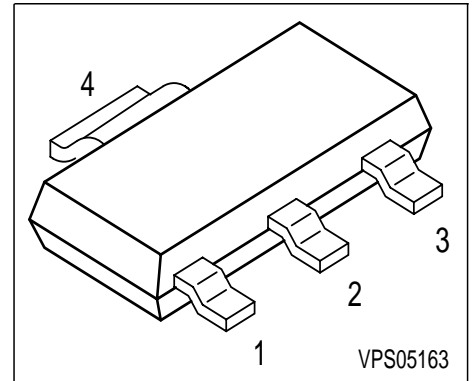


Silicon Switching Diodes

- 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	BAS	BAS	BAS	Unit
		79A	79B	79C	79D	
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, $t = 1 \mu s$	I_{FS}	10				
Total power dissipation, $T_S = 114 \text{ }^\circ\text{C}$	P_{tot}	1.2				W
Junction temperature	T_j	150				$^\circ\text{C}$
Storage temperature	T_{stg}	-65 ... 150				

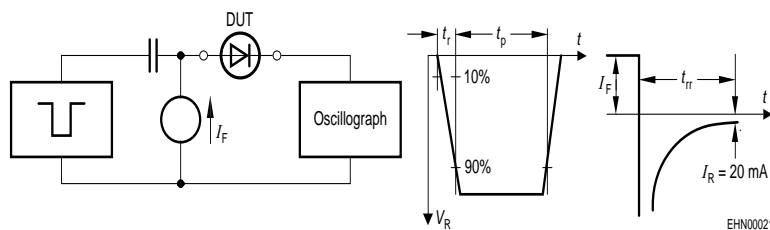
Thermal Resistance

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

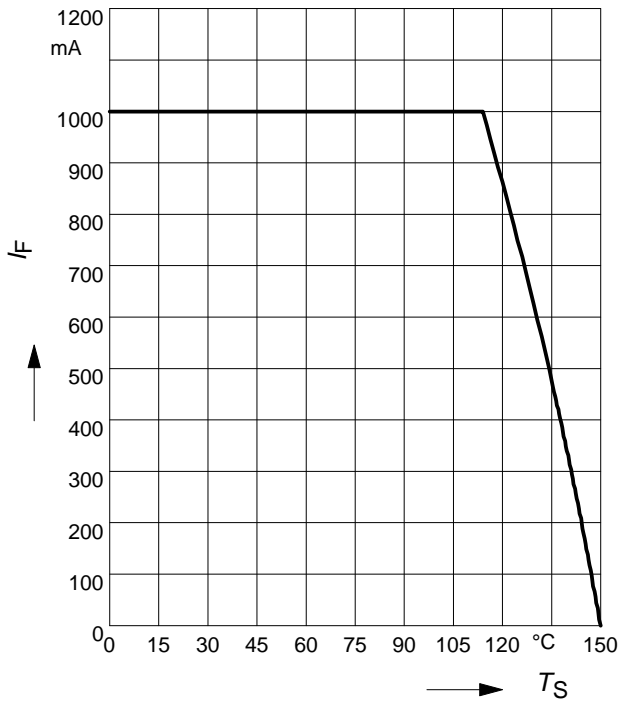
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)} = 100 \mu\text{A}$	$V_{(BR)}$				V
BAS79A		50	-	-	
BAS79B		100	-	-	
BAS79C		200	-	-	
BAS79D		400	-	-	
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: $t_p = 10 \mu\text{s}$, $D = 0.05$,
 $t_f = 0.6 \text{ ns}$, $R_i = 50 \Omega$

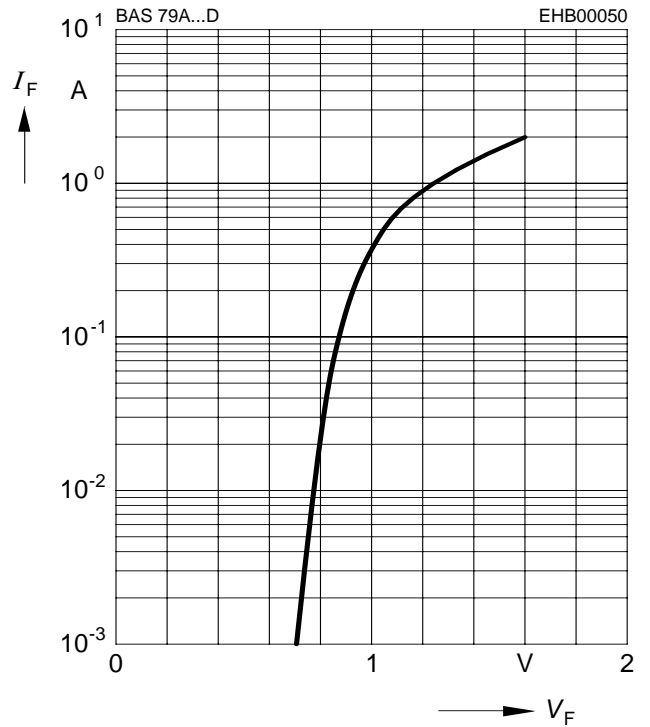
 Oscilloscope: $R = 50 \Omega$, $t_f = 0.35 \text{ ns}$,
 $C \leq 1 \text{ pF}$

Forward current $I_F = f(T_S)$



Forward current $I_F = f(V_F)$

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



Reverse current $I_R = f(T_A)$

$V_R = V_{Rmax}$

