SIEMENS

Silicon Switching Diodes

BAW 79 A
… BAW 79 D

● For high-speed switching
● High breakdown voltage
● Common cathode
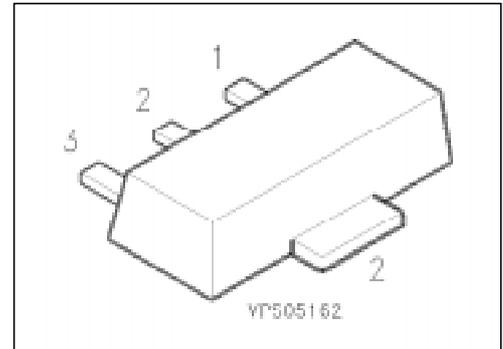
Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package[1]
BAW 79 A	GE	Q62702-A781		SOT-89
BAW 79 B	GF	Q62702-A782		
BAW 79 C	GG	Q62702-A771		
BAW 79 D	GH	Q62702-A733		

Maximum Ratings per Diode

Parameter	Symbol	Values BAW	BAW	BAW	BAW	Unit
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 $T_S = 115\ °C$	P_{tot}	1				W
Junction temperature	T_j	150				°C
Storage temperature range	T_{stg}	$-65 … +150$				

Thermal Resistance

Junction - ambient[2]	$R_{th\ JA}$	≤ 175		K/W
Junction - soldering point	$R_{th\ JS}$	≤ 35		

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[1] For detailed information see chapter Package Outlines.

[2] Package mounted on epoxy pcb 40 mm $\times$ 40 mm $\times$ 1.5 mm/6 cm^2 Cu.

Electrical Characteristics per Diode

at T_A = 25 °C, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

DC characteristics

Parameter	Symbol	min.	typ.	max.	Unit
Breakdown voltage $I_{(BR)}$ = 100 µA	$V_{(BR)}$				V
BAW 79 A		50	–	–	
BAW 79 B		100	–	–	
BAW 79 C		200	–	–	
BAW 79 D		400	–	–	
Forward voltage[1)] I_F = 1 A I_F = 2 A	V_F	 – –	 – –	 1.6 2	V
Reverse current $V_R = V_{Rmax}$ $V_R = V_{Rmax}$, T_A = 150 °C	I_R	 – –	 – –	 1 50	µA

AC characteristics

Parameter	Symbol	min.	typ.	max.	Unit
Diode capacitance V_R = 0 V, f = 1 MHz	C_D	–	10	–	pF
Reverse recovery time I_F = 200 mA, I_R = 200 mA, R_L = 100 Ω measured at I_R = 20 mA	t_{rr}	–	1	–	µs

Test circuit for reverse recovery time

EHN00030
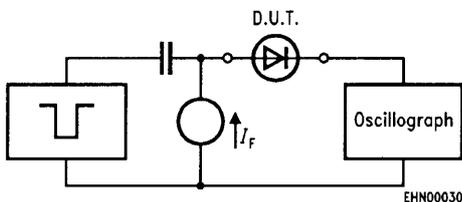
Pulse generator: t_p = 5 µs, D = 0.05
t_r = 0.6 ns, R_j = 50 Ω

Oscillograph: R = 50 Ω
t_r = 0.35 ns
$C \leq$ 1 pF

[1)] Pulse test: $t_p \leq$ 300 µs, D = 2 %.

Forward current $I_F = f(T_A*; T_S)$
* Package mounted on epoxy
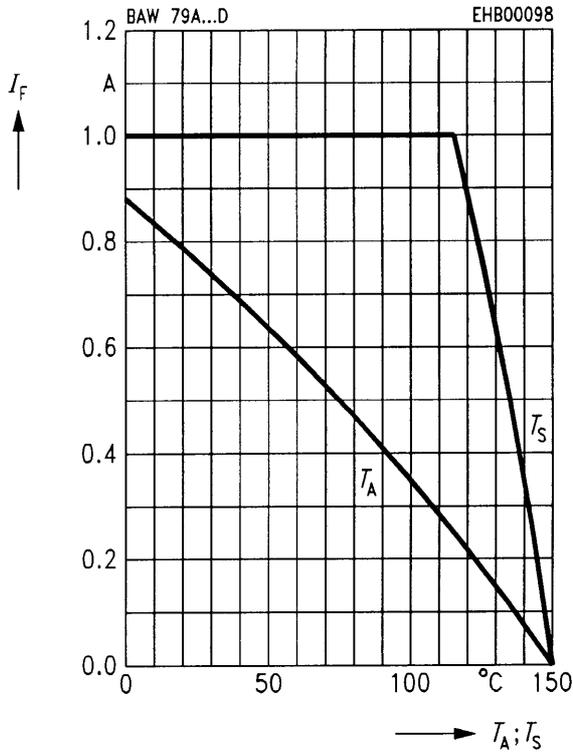
**Forward current** $I_F = f(V_F)$
$T_A = 25\ °C$
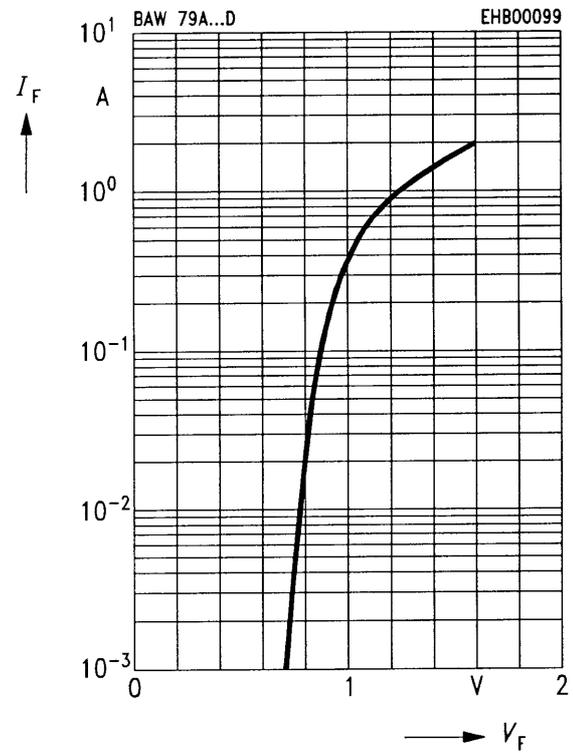
Peak forward current $I_{FM} = f(t)$
$T_A = 25\ °C$
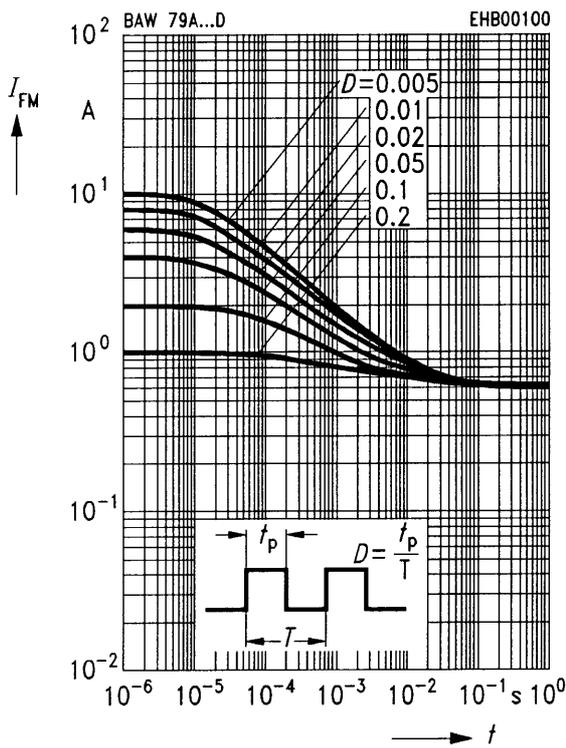
Reverse current $I_R = f(T_A)$
$V_R = V_{Rmax}$