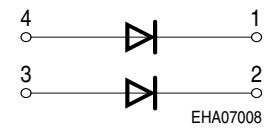
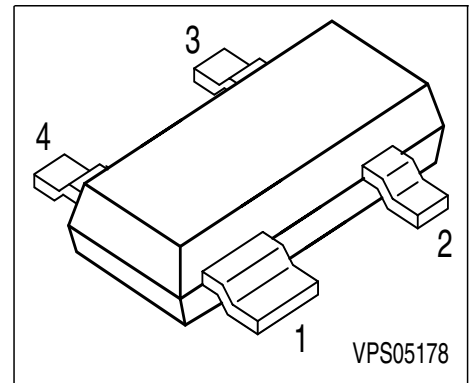


Silicon Switching Diode Array

- Electrically insulated high-voltage medium-speed diodes



Type	Marking	Pin Configuration				Package
BAW 101	JPs	1 = C1	2 = C2	3 = A2	4 = A1	SOT-143

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	300	V
Peak reverse voltage	V_{RM}	300	
Forward current	I_F	250	mA
Peak forward current	I_{FM}	500	
Surge forward current, $t = 1 \mu s$	I_{FS}	4.5	A
Total power dissipation, $T_S \leq 35^\circ C$	P_{tot}	350	mW
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

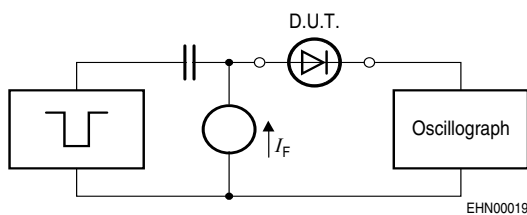
Junction - ambient ¹⁾	R_{thJA}	≤ 470	K/W
Junction - soldering point	R_{thJS}	≤ 330	

1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 6cm² Cu

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)} = 100 \mu\text{A}$	$V_{(BR)}$	300	-	-	V
Forward voltage $I_F = 100 \text{ mA}$	V_F	-	-	1.3	
Reverse current $V_R = 250 \text{ V}$	I_R	-	-	150	nA
Reverse current $V_R = 250 \text{ V}, T_A = 150^\circ\text{C}$	I_R	-	-	50	μA
AC characteristics					
Diode capacitance $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_D	-	6	-	pF
Reverse recovery time $I_F = 10 \text{ mA}, I_R = 10 \text{ mA}, R_L = 100 \Omega$, measured at $I_R = 1 \text{ mA}$	t_{rr}	-	1	-	μs

Test circuit for reverse recovery time

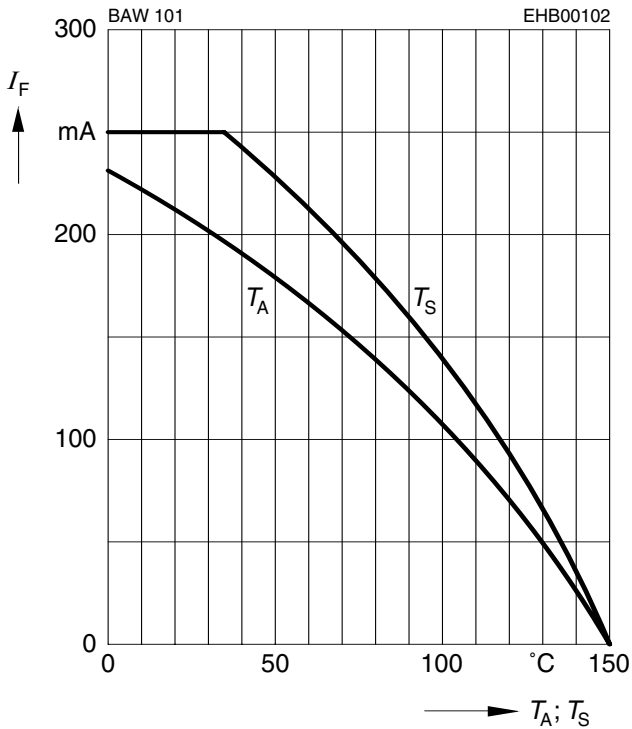


Pulse generator: $t_p = 100\text{ns}$, $D = 0.05$,
 $t_r = 0.6\text{ns}$, $R_i = 50\Omega$

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

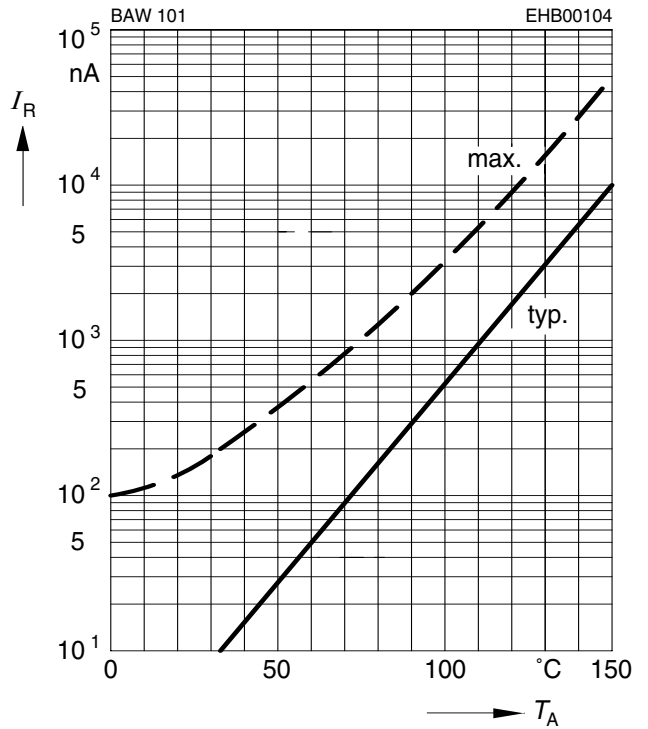
Forward current $I_F = f(T_A^*; T_S)$

* Package mounted on epoxy



Reverse current $I_R = f(T_A)$

$V_R = 250V$



Forward current $I_F = f(V_F)$

$T_A = 25^\circ C$

