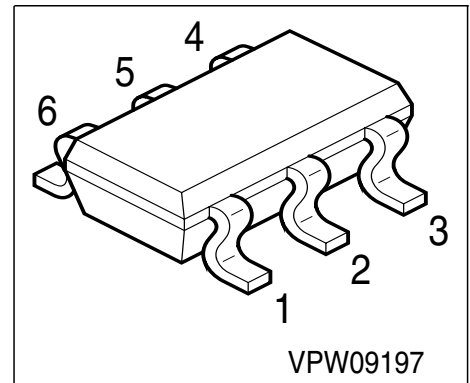
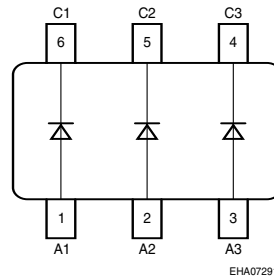


Silicon Switching Diode Array

- For high-speed switching applications
- Internal (galvanic) isolated diodes in one package



Type	Marking	Pin Configuration					Package	
BAS 21U	JSs	1=A1	2=A2	3=A3	4=C3	5=C2	6=C1	SC-74

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	200	V
Peak reverse voltage	V_{RM}	250	
Forward current	I_F	250	mA
Forward surge current, $t_p = 10 \mu s$	I_{FS}	4	A
Total power dissipation, $T_S = 122 \text{ }^\circ\text{C}$	P_{tot}	250	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

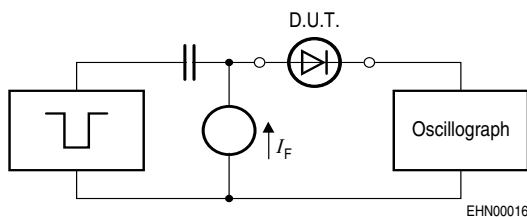
Junction - ambient ¹⁾	R_{thJA}	≤ 380	K/W
Junction - soldering point	R_{thJS}	≤ 110	K/W

1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm² Cu

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)} = 100 \mu\text{A}$	$V_{(BR)}$	250	-	-	V
Forward voltage $I_F = 100 \text{ mA}$ $I_F = 200 \text{ mA}$	V_F	- -	- -	1 1.25	
Reverse current $V_R = 250 \text{ V}$	I_R	-	-	100	nA
Reverse current $V_R = 250 \text{ V}, T_A = 150^\circ\text{C}$	I_R	-	-	100	μA
AC characteristics					
Diode capacitance $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_D	-	-	5	pF
Reverse recovery time $I_F = 30 \text{ mA}, I_R = 30 \text{ mA}, R_L = 100 \Omega$, measured at $I_R = 3 \text{ mA}$	t_{rr}	-	-	50	ns

Test circuit for reverse recovery time

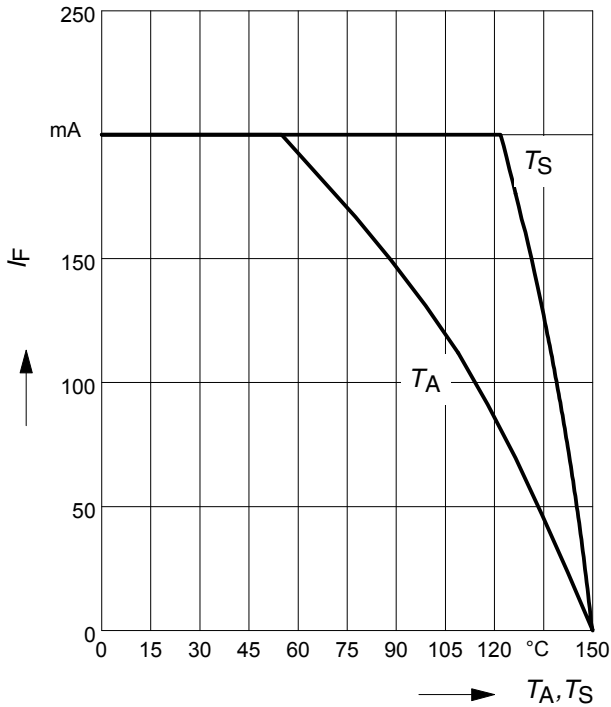


Pulse generator: $t_p = 100\text{ns}$, $D = 0.05$,
 $t_r = 0.6\text{ns}$, $R_i = 50\Omega$

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

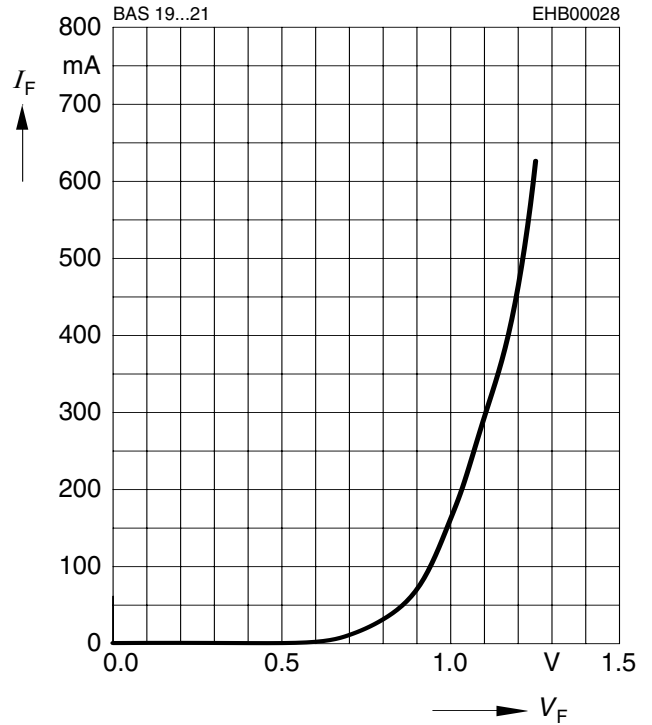
Forward current $I_F = f(T_A^*; T_S)$

* Package mounted on epoxy

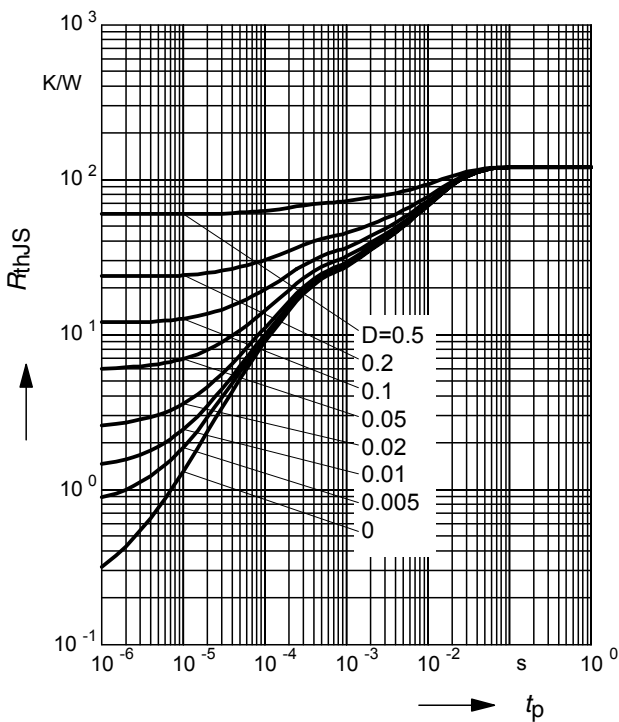


Forward current $I_F = f(V_F)$

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

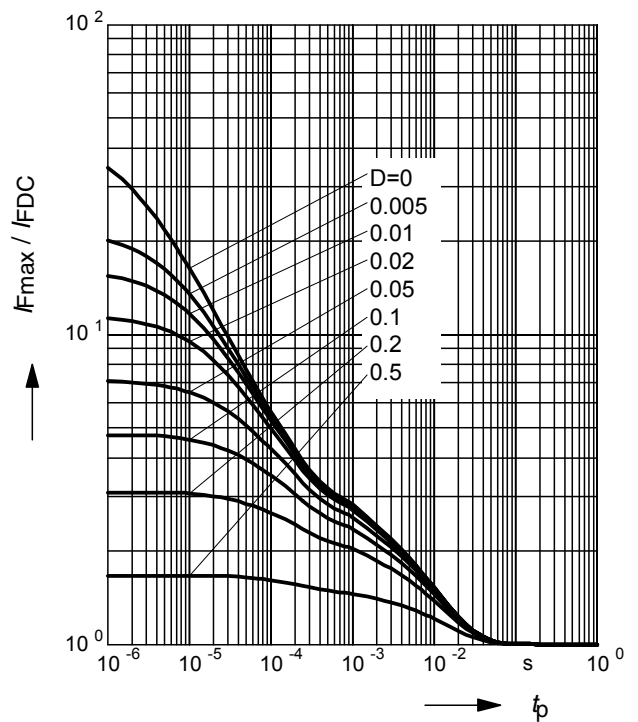


Permissible Pulse Load $R_{thJS} = f(t_p)$



Permissible Pulse Load

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



Forward voltage $V_F = f(T_A)$

Reverse current $I_R = f(T_A)$

