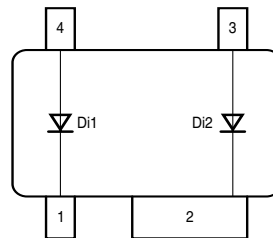
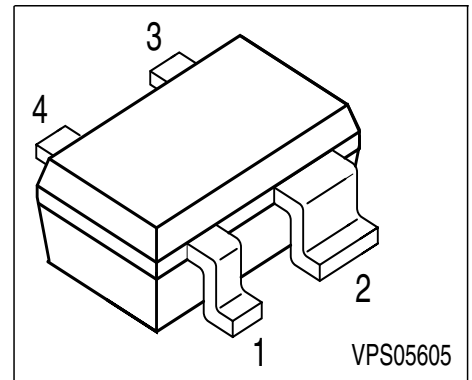


Silicon Switching Diode Array

- For high-speed switching applications
- Electrical insulated diodes



EHA07289



Type	Marking	Pin Configuration				Package
BAS 28W	JTs	1 = C1	2 = C2	3 = A2	4 = A1	SOT-343

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	75	V
Peak reverse voltage	V_{RM}	85	
Forward current	I_F	200	mA
Surge forward current, $t = 1 \mu s$	I_{FS}	4.5	A
Total power dissipation, $T_S = 103^\circ C$	P_{tot}	250	mW
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

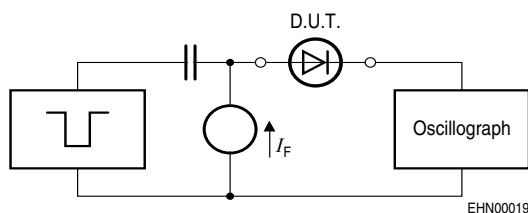
Junction - ambient ¹⁾	R_{thJA}	≤ 460	K/W
Junction - soldering point	R_{thJS}	≤ 190	

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 $I_{(BR)} = 10\text{ }\mu\text{A}$	$V_{(BR)}$	85	-	-	V
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 50\text{ mA}$ $I_F = 150\text{ mA}$	V_F	- - - -	- - - -	715 855 1000 1250	mV
Reverse current $V_R = 75\text{ V}$	I_R	-	-	1	μA
Reverse current $V_R = 25\text{ V}, T_A = 150\text{ }^{\circ}\text{C}$	I_R	-	-	30	
$V_R = 75\text{ V}$		-	-	50	
AC characteristics					
Diode capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$	C_D	-	-	2	pF
Reverse recovery time $I_F = 10\text{ mA}, I_R = 10\text{ mA}, R_L = 100\text{ }\Omega$, measured at $I_R = 1\text{mA}$	t_{rr}	-	-	6	ns

Test circuit for reverse recovery time

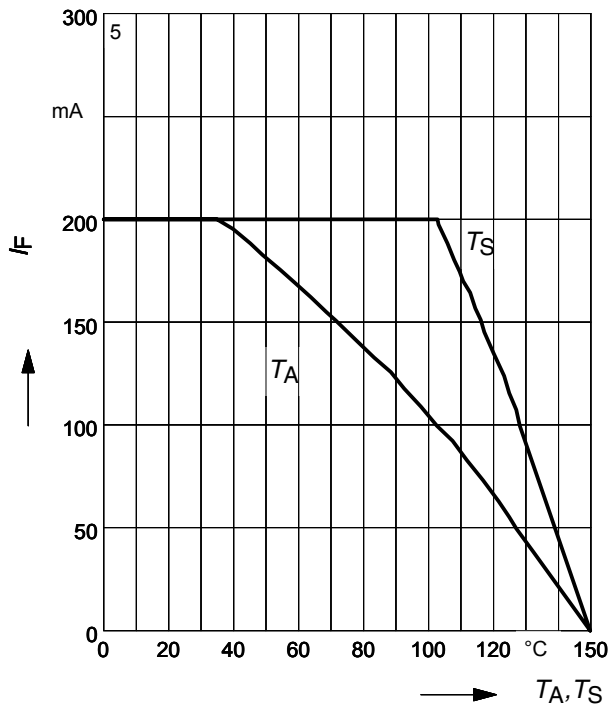


Pulse generator: $t_p = 100\text{ ns}$, $D = 0.05$,
 $t_r = 0.6\text{ ns}$, $R_i = 50\text{ }\Omega$

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

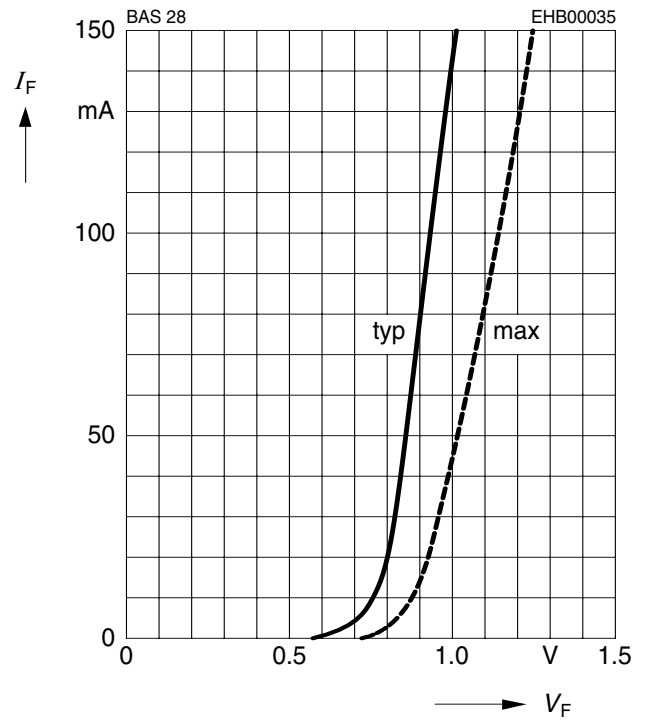
Forward current $I_F = f(T_A^*; T_S)$

* Package mounted on epoxy

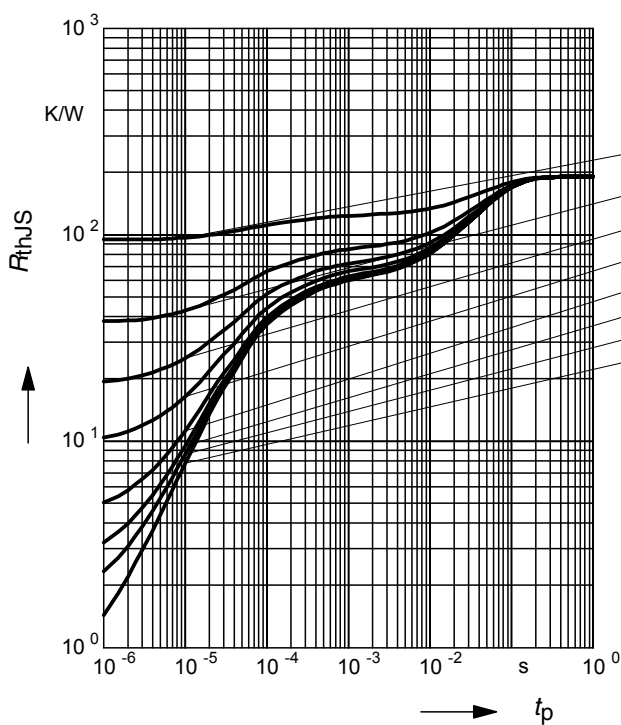


Forward current $I_F = f(V_F)$

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

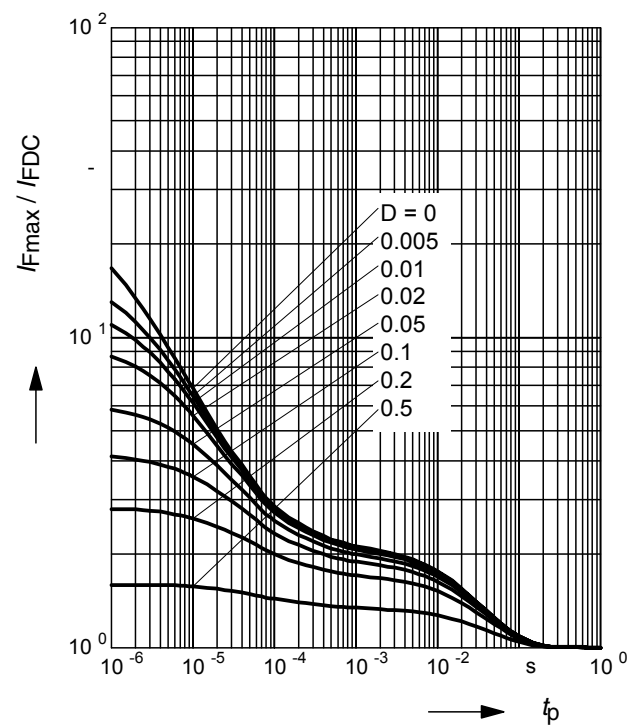


Permissible Pulse Load $R_{thJS} = f(t_p)$

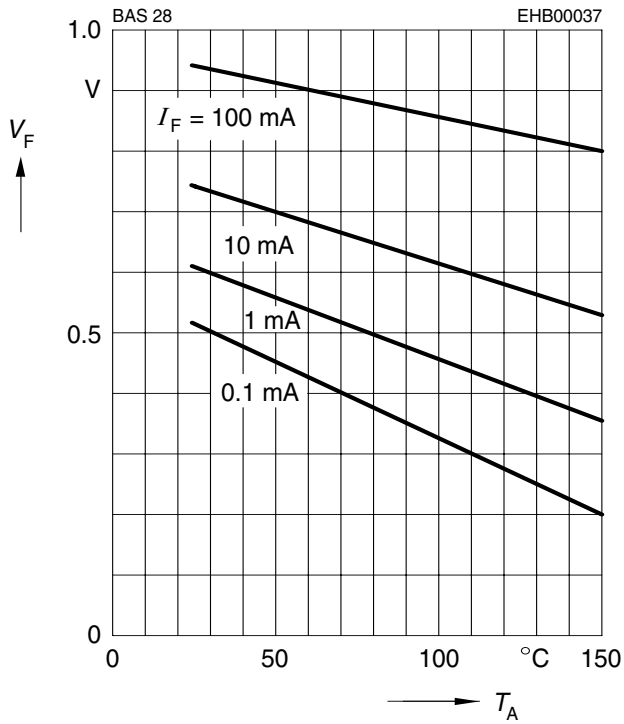


Permissible Pulse Load

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



Forward voltage $V_F = f(T_A)$



Reverse current $I_R = f(T_A)$

