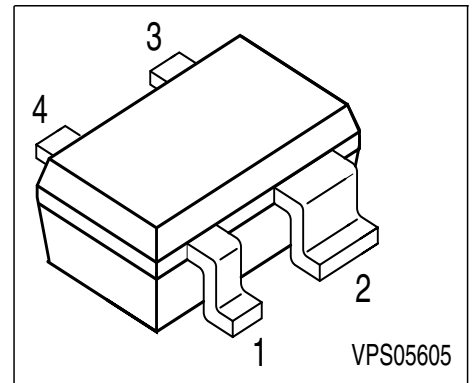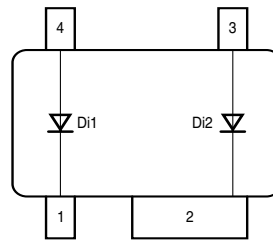## Silicon Switching Diode Array

- For high-speed switching applications
- Electrical insulated diodes

VPS05605

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 μs	I_{FS}	4.5	A
Total power dissipation, T_S = 103 °C	P_{tot}	250	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
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 / 0.5cm^2 Cu

Oct-07-1999

Electrical Characteristics at T_A = 25°C, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)}$ = 10 µA	$V_{(BR)}$	85	-	-	V
Forward voltage I_F = 1 mA I_F = 10 mA I_F = 50 mA I_F = 150 mA	V_F	 - - - -	 - - - -	 715 855 1000 1250	mV
Reverse current V_R = 75 V	I_R	-	-	1	µA
Reverse current V_R = 25 V, T_A = 150 °C V_R = 75 V	I_R	 - -	 - -	 30 50	
AC characteristics					
Diode capacitance V_R = 0 V, f = 1 MHz	C_D	-	-	2	pF
Reverse recovery time I_F = 10 mA, I_R = 10 mA, R_L = 100 Ω, measured at I_R = 1mA	t_{rr}	-	-	6	ns

Test circuit for reverse recovery time

EHN00019
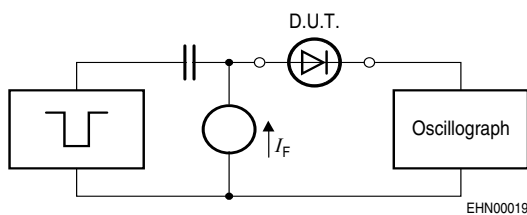
Pulse generator: t_p = 100ns, D = 0.05,   Oscillograph: R = 50Ω, t_r = 0.35ns,

t_r = 0.6ns, R_i = 50Ω $C \leq$ 1pF

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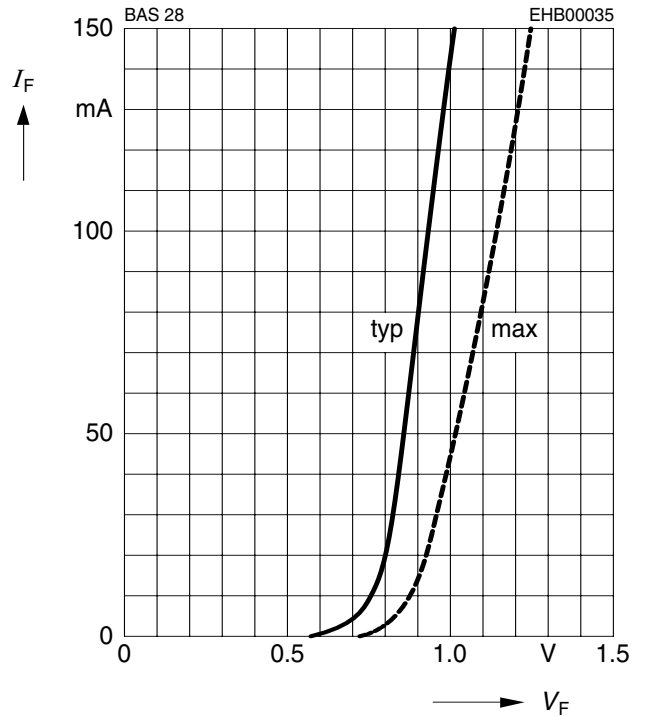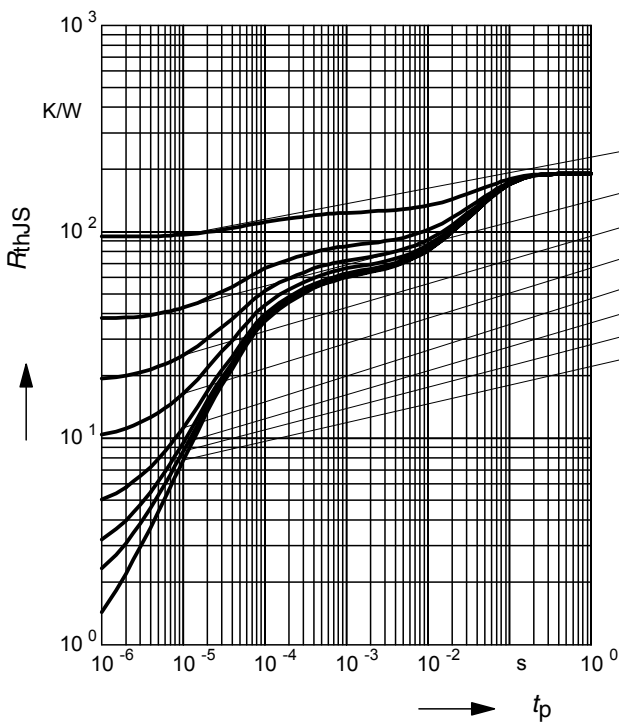**Forward current** $I_F = f(T_A*; T_S)$

* Package mounted on epoxy
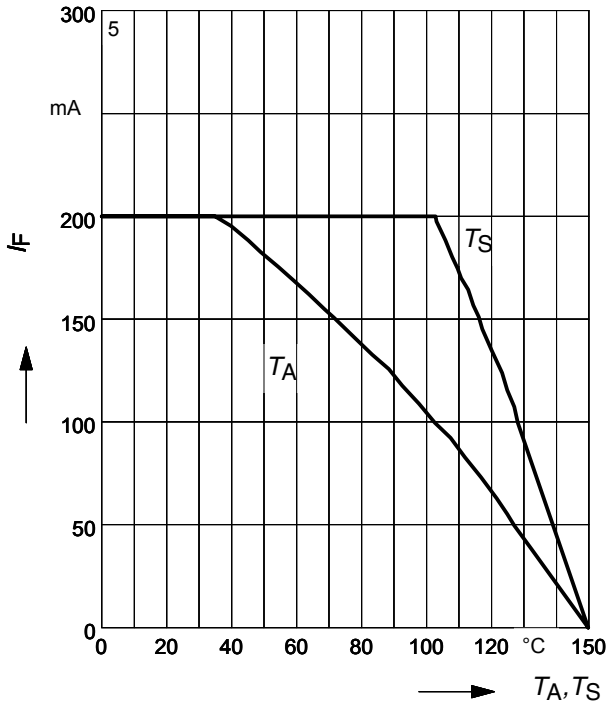
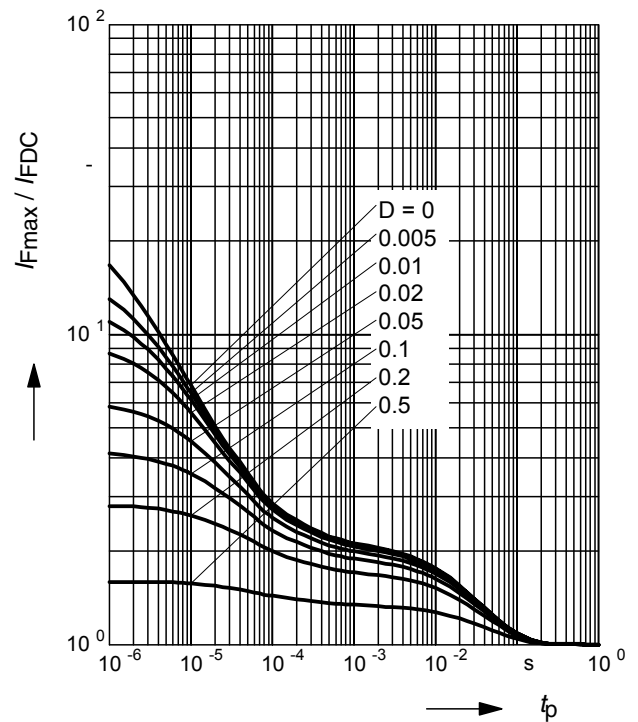**Forward current** $I_F = f(V_F)$

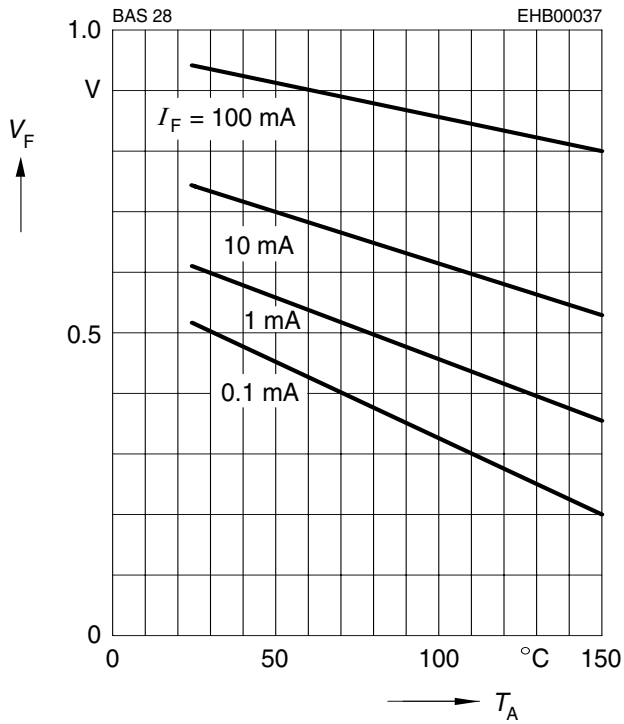$T_A = 25°C$

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

Permissible Pulse Load

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

Oct-07-1999

Forward voltage $V_F = f(T_A)$

Reverse current $I_R = f(T_A)$

BAS 28   EHB00037

V_F plot: $I_F = 100$ mA, 10 mA, 1 mA, 0.1 mA versus T_A (°C)

BAS 28   EHB00034

I_R plot (nA): $V_R = 70$ V, max., typ., 70 V, 25 V versus T_A (°C)