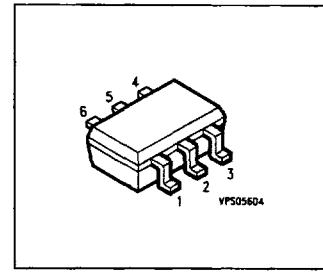
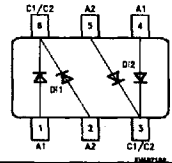
Silicon Switching Diode Array

- For high speed switching applications
- Common cathode
- Internal (galvanic) isolated Diodes Arrays in one package





Type	Marking	Ordering Code	Pin Configuration			Package
BAV 70S	A4s	Q62702-A1097	1/4=A1	2/5=A2	3/6=C1/2	SOT-363

Maximum Ratings per Diode

Parameter	Symbol	Values	Unit
Diode reverse voltage	V_R	70	V
Peak reverse voltage	V_{RM}	70	
Forward current	I_F	200	mA
Surge forward current, t = 1 µs	I_{FS}	4.5	A
Total Power dissipation T_S = 85 °C	P_{tot}	 250	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	- 65 ... + 150	
Thermal Resistance			
Junction ambient 1)	R_{thJA}	≤ 530	K/W
Junction - soldering point	R_{thJS}	≤ 260	

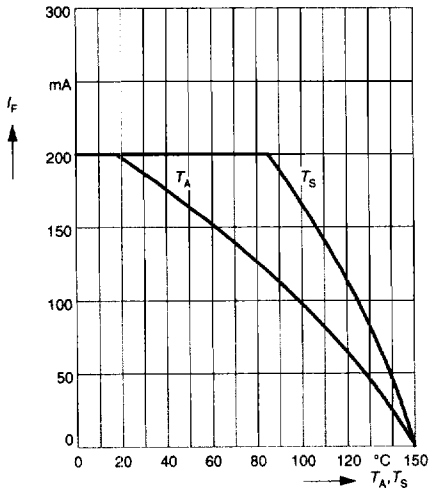
1) Package mounted on epoxy pcb 40mm x 40mmm x 1.5mm / 0.5cm² Cu

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics per Diode					
Breakdown voltage	$V_{(BR)}$				V
$I_{(BR)}$ = 100 µA		70	-	-	
Forward voltage	V_F				mV
I_F = 1 mA		-	-	715	
I_F = 10 mA		-	-	855	
I_F = 50 mA		-	-	1000	
I_F = 150 mA		-	-	1250	
Reverse current	I_R				µA
V_R = 70 V, T_A = 25 °C		-	-	2.5	
V_R = 25 V, T_A = 150 °C		-	-	30	
V_R = 70 V, T_A = 150 °C		-	-	50	
AC characteristics per Diode					
Diode capacitance	C_D				pF
V_R = 0 V, f = 1 MHz		-	-	1.5	
Reverse recovery time	t_{rr}				ns
I_F = 10 mA, I_R = 10 mA, R_L = 100 Ω					
t_{rr} measured at 1 mA		-	-	6	

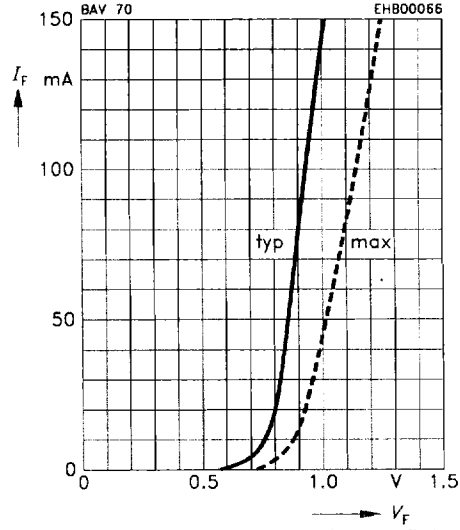
Forward current $I_F = f(T_A^*; T_S)$

* Package mounted on epoxy

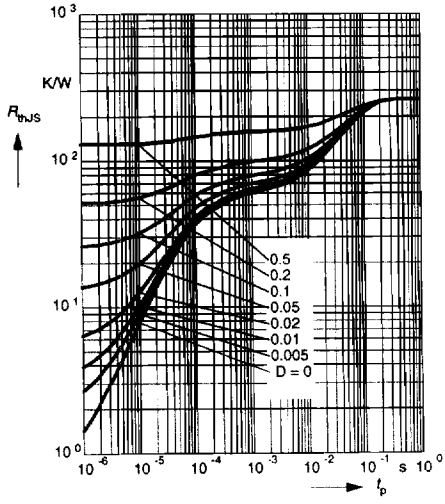


Forward current $I_F = f(V_F)$

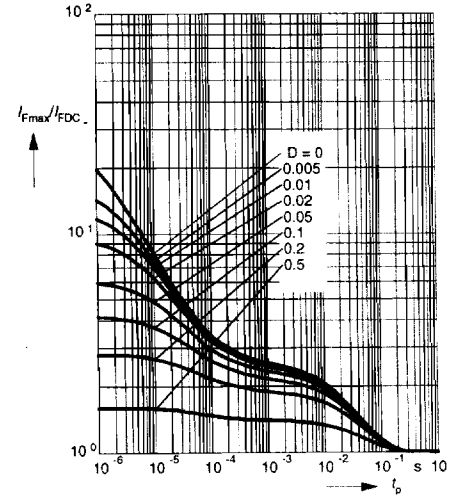
$T_A = 25°C$



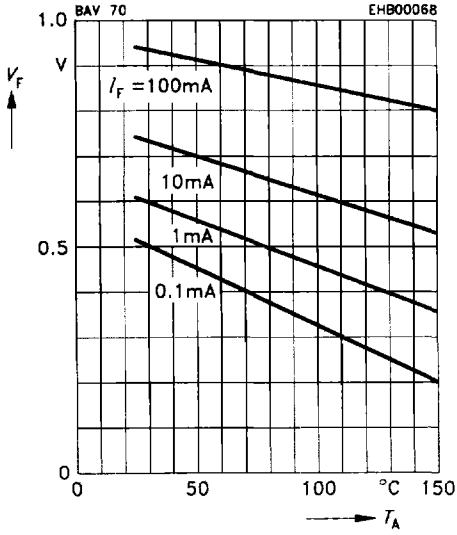
Permissible Pulse Load $R_{thJS} = f(t_p)$



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



Forward voltage $V_F = f(T_A)$



Reverse current $I_R = f(T_A)$