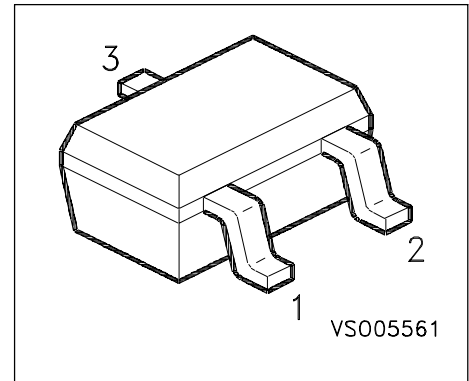


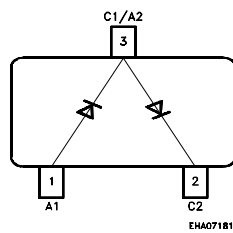
## Silicon Schottky Diodes

### Preliminary data

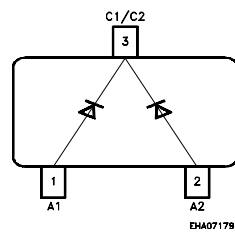
- For mixer applications in the VHF/UHF range
- For high speed switching



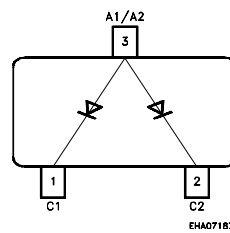
BAT 68-04W



BAT68-05W



BAT68-06W



Type	Marking	Ordering Code	Pin Configuration			Package
BAT 68-04W	84s	Q62702-	1 = A1	2 = K2	3 = K1/A2	SOT-323
BAT 68-05W	85s	Q62702-	1 = A1	2 = A2	3 = K1/K2	SOT-323
BAT 68-06W	86s	Q62702-	1 = K1	2 = K2	3 = A1/A2	SOT-323
BAT 68W	83s	Q62702-	1 = A	n.c.	3 = K	SOT-323

### Maximum Ratings

Parameter	Symbol	Values	Unit
Diode reverse voltage	$V_R$	8	V
Forward current	$I_F$	130	mA
Total power dissipation, BAT68W $T_S=97^\circ\text{C}$	$P_{tot}$	150	mW
Total power dissipation, BAW68-04...06W $T_S=92^\circ\text{C}$	$P_{tot}$	150	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Operating temperature range	$T_{op}$	- 65 ... + 150	
Storage temperature	$T_{stg}$	- 65 ... + 150	

### Thermal Resistance

Junction - ambient, BAT68W	$R_{thJA}$	$\leq 435$	K/W
Junction - ambient, BAT68-04W...06W	$R_{thJA}$	$\leq 550$	
Junctui - soldering point, BAT68W	$R_{thJS}$	$\leq 355$	
Junction - soldering point, BAT68-04W...06W	$R_{thJS}$	390	

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

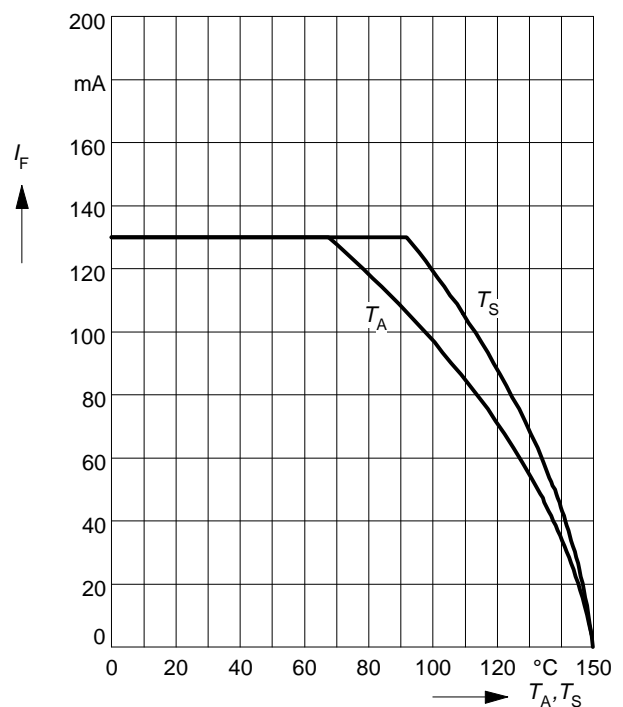
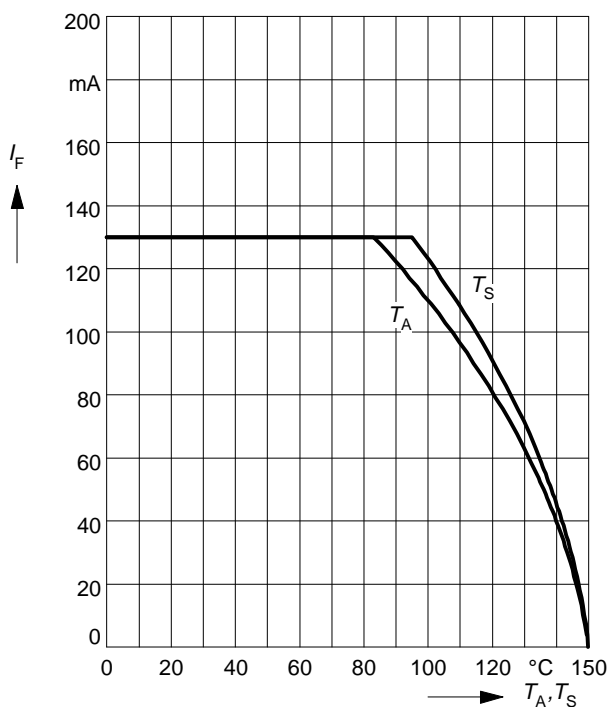
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC characteristics</b>					
Breakdown voltage $I_{(BR)} = 100 \mu\text{A}$	$V_{(BR)}$	8	-	-	V
Reverse current $V_R = 1 \text{ V}, T_A = 25^\circ\text{C}$ $V_R = 1 \text{ V}, T_A = 60^\circ\text{C}$	$I_R$	-	-	0.1 1.2	$\mu\text{A}$
Forward voltage $I_F = 1 \text{ mA}$ $I_F = 10 \text{ mA}$	$V_F$	- 340	318 390	340 500	mV
Diode capacitance $V_R = 1 \text{ V}, f = 1 \text{ MHz}$	$C_T$	-	-	1	pF
Differential forward resistance $I_F = 5 \text{ mA}$	$R_F$	-	-	10	$\Omega$

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

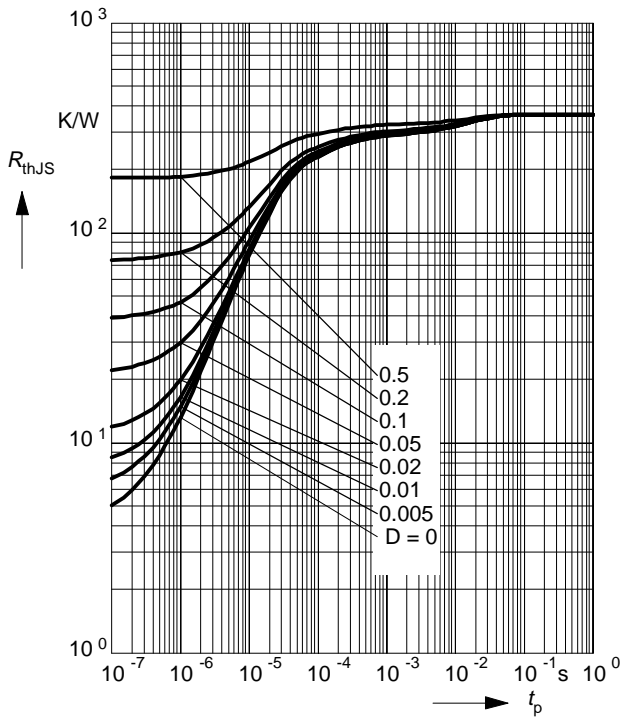
\*) : mounted on alumina 15mm x 16.7mm x 0.7mm  
BAT 68W

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

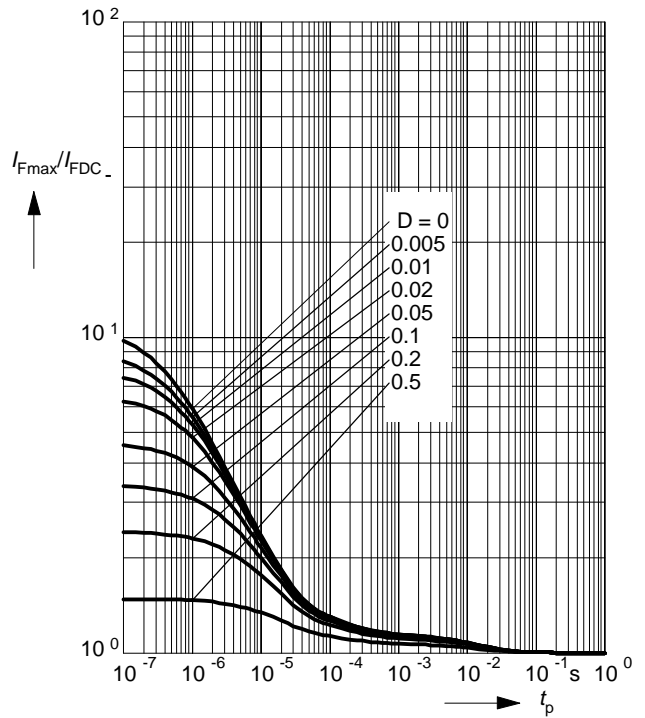
\*) : mounted on alumina 15mm x 16.7mm x 0.7mm  
BAT 68-04W, -05W, -06W



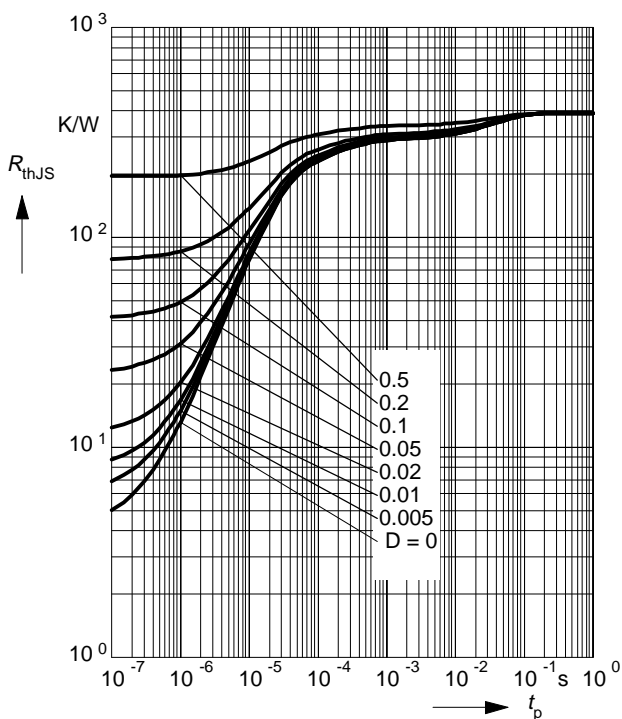
**Permissible Pulse Load  $R_{THJS} = f(t_p)$**   
BAT 68W



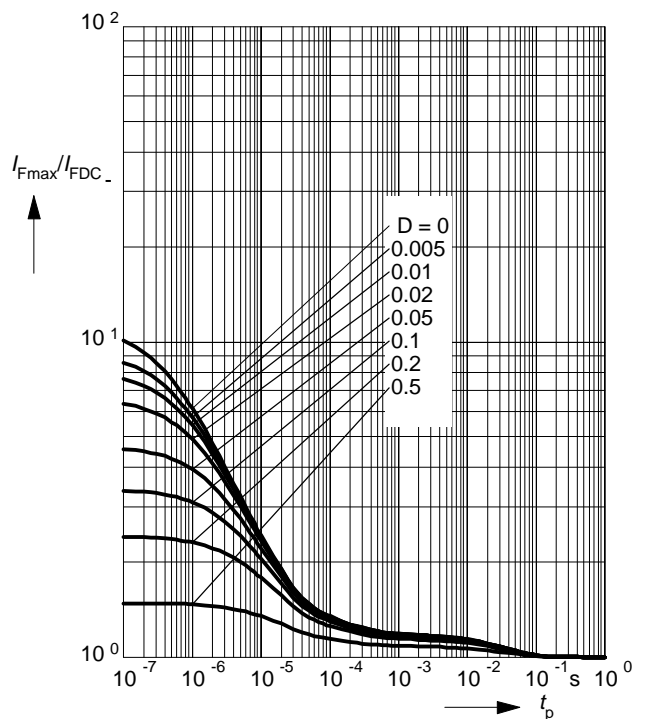
**Permissible Pulse Load  $I_{Fmax}/I_{FDC} = f(t_p)$**   
BAT 68W



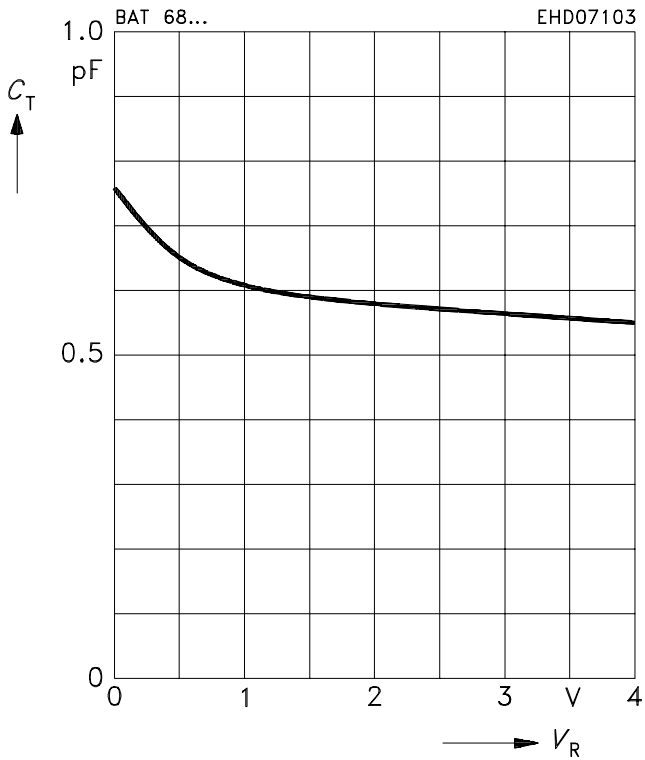
**Permissible Pulse Load  $R_{THJS} = f(t_p)$**   
BAT 68-04W, -05W, -06W



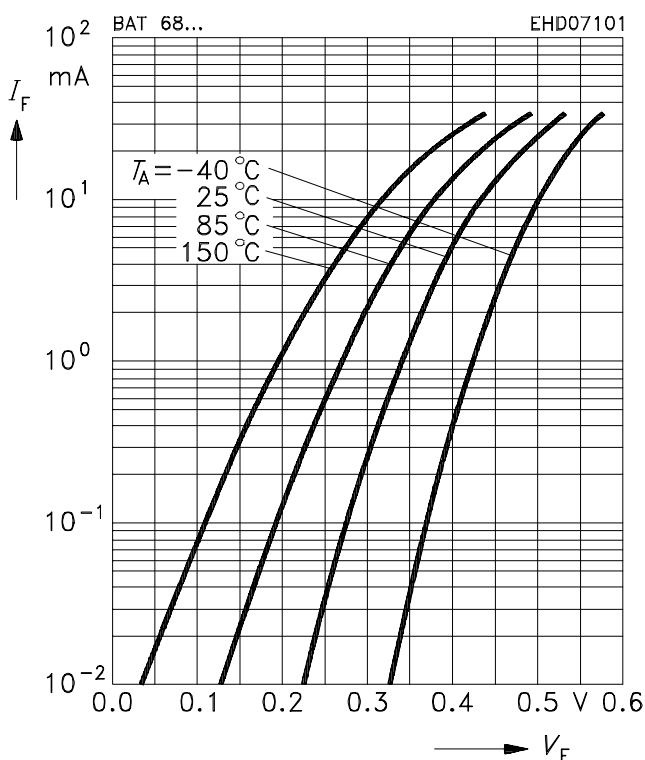
**Permissible Pulse Load  $I_{Fmax}/I_{FDC} = f(t_p)$**   
BAT 68-04W, -05W, -06W



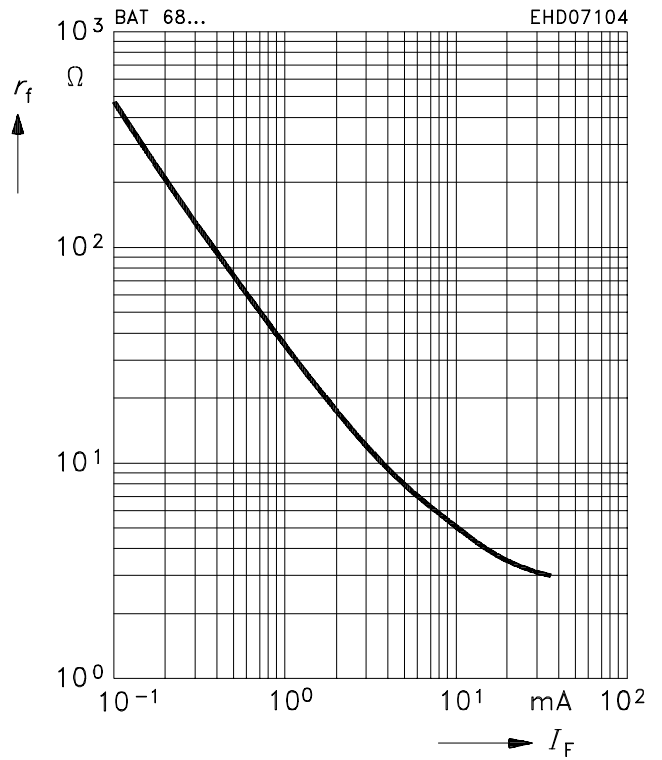
**Diode capacitance  $C_T = f(V_R)$**   
 $f = 1\text{MHz}$



**Forward Current  $I_F = f(V_F)$**



**Differential forward resistance  $r_f = f(I_F)$**   
 $f = 10\text{kHz}$



**Reverse current  $I_R = f(T_A)$**   
 $V_R = 28\text{V}$