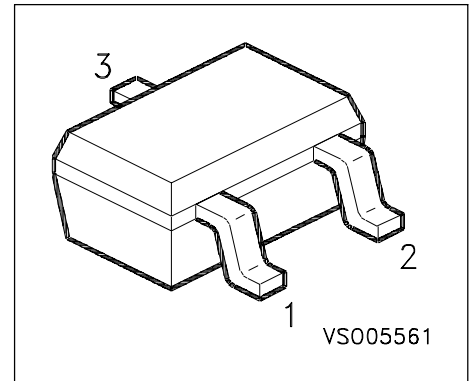


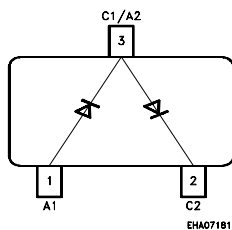
## Silicon Schottky Diodes

### Preliminary data

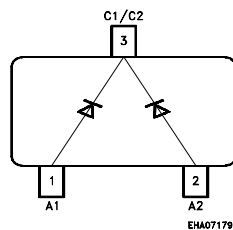
- For low-loss, fast-recovery, meter protection, bias isolation and clamping application
- Integrated diffused guard ring
- Low forward voltage



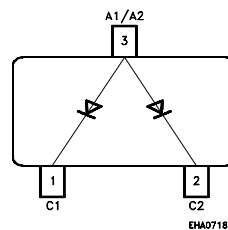
BAS 125-04W



BAS 125-04W



BAS 125-06W



**ESD: ElectroStatic Discharge sensitive device, observe handling precautions!**

Type	Marking	Ordering Code	Pin Configuration			Package
BAS 125-04W	14s	Q62702-	1 = A1	2 = C2	3=C1/A2	SOT-323
BAS 125-05W	15s	Q62702-	1 = A1	2 = A2	3=C1/C2	SOT-323
BAS 125-06W	16s	Q62702-	1 = C1	2 = C2	3=A1/A2	SOT-323
BAS 125W	13s	Q62702-	1 = A		3 = C	SOT-323

### Maximum Ratings

Parameter	Symbol	Values	Unit
Diode reverse voltage	$V_R$	25	V
Forward current	$I_F$	100	mA
Surge forward current ( $t \leq 10\text{ms}$ )	$I_{FSM}$	500	
Total Power dissipation $T_S \leq 25^\circ\text{C}$	$P_{tot}$	250	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	- 55 ... + 150	

### Thermal Resistance

Junction ambient, BAS125W 1)	$R_{thJA}$	$\leq 310$	K/W
Junction ambient, BAS 125-04W...06W 1)	$R_{thJA}$	$\leq 425$	
Junction - soldering point, BAS125W	$R_{thJS}$	$\leq 230$	
Junction - soldering point, BAS125-04W...06W	$R_{thJS}$	$\leq 265$	

1) Package mounted on alumina 15mm x 16.7mm x 0.7mm

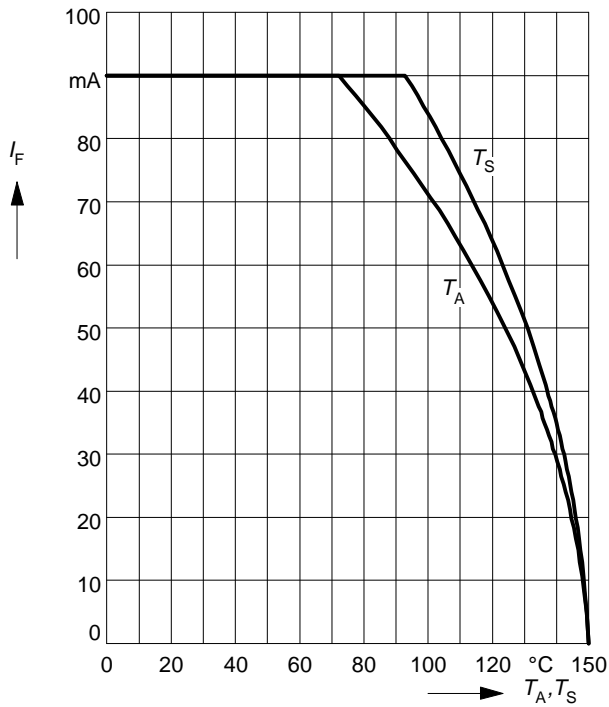
**Electrical Characteristics** at  $T_A=25^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC characteristics</b>					
Reverse current	$I_R$				nA
$V_R = 20\text{ V}$		-	-	150	
$V_R = 25\text{ V}$		-	-	200	
Forward voltage	$V_F$				mV
$I_F = 1\text{ mA}$		-	385	400	
$I_F = 10\text{ mA}$		-	530	650	
$I_F = 35\text{ mA}$		-	800	900	
<b>AC Characteristics</b>					
Diode capacitance	$C_T$				pF
$V_R = 0\text{ V}, f = 1\text{ MHz}$		-	-	1.1	
Differential forward resistance	$R_F$				$\Omega$
$I_F = 5\text{ mA}, f = 10\text{ kHz}$		-	16	-	

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

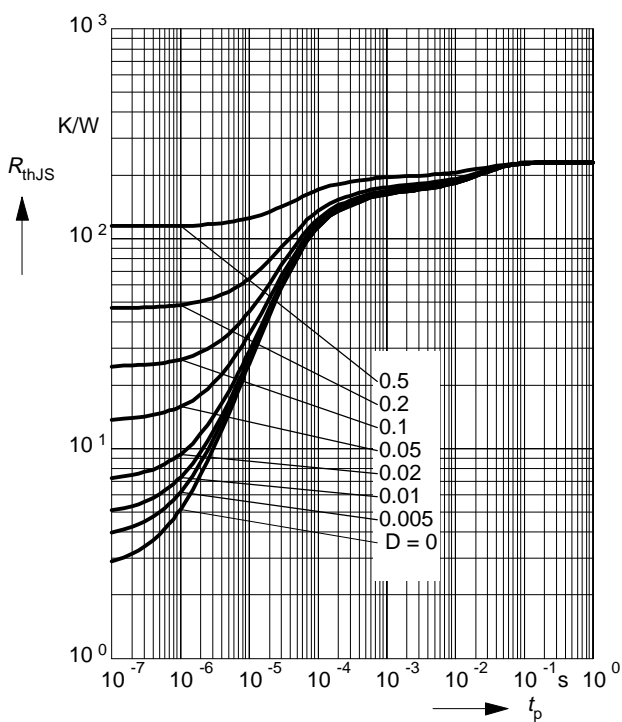
\* Package mounted on epoxy

BAS 125W



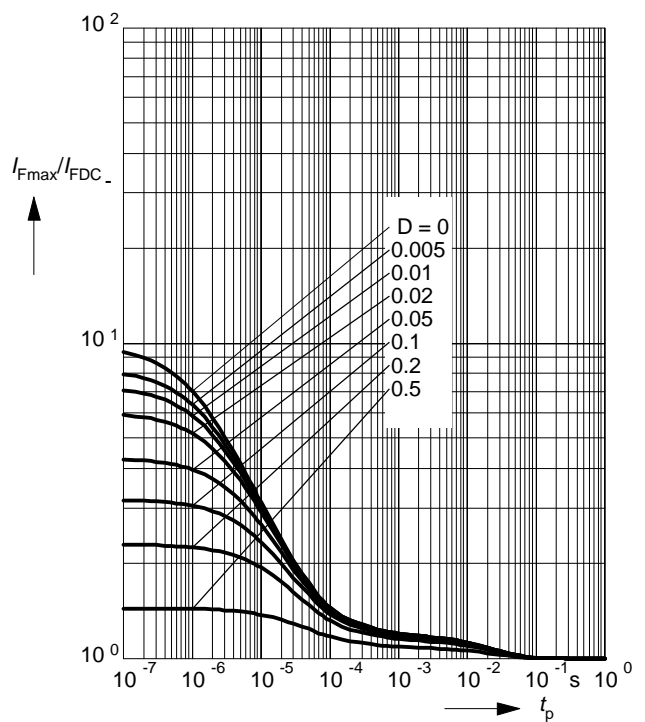
### Permissible Pulse Load $R_{THJS} = f(t_p)$

BAS 125W



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

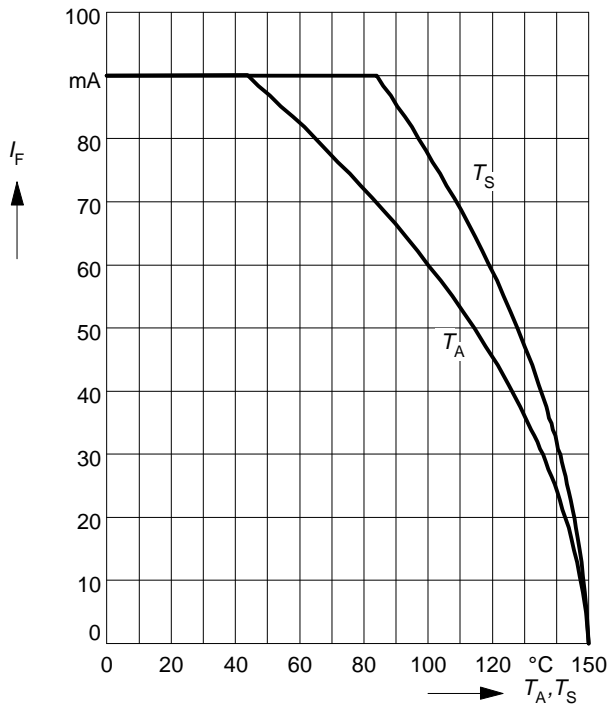
BAS 125W



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

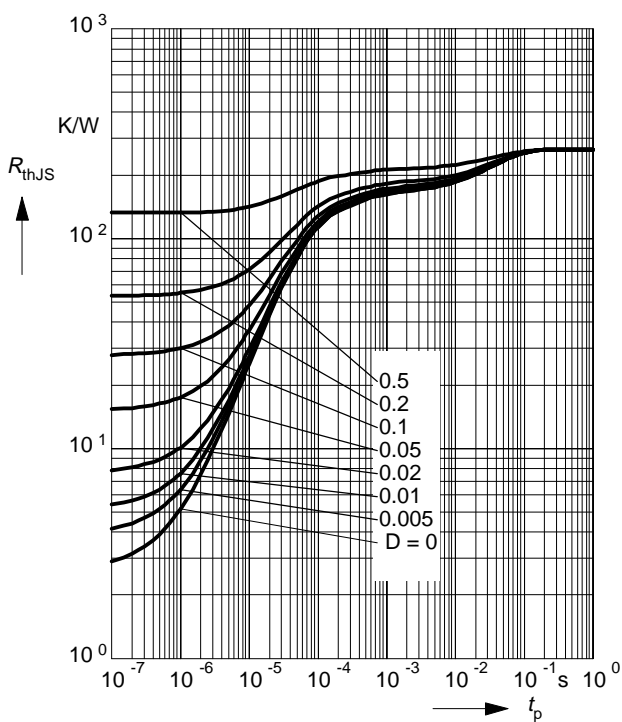
\* Package mounted on epoxy

BAS 125-04W... ( $I_F$  per diode)



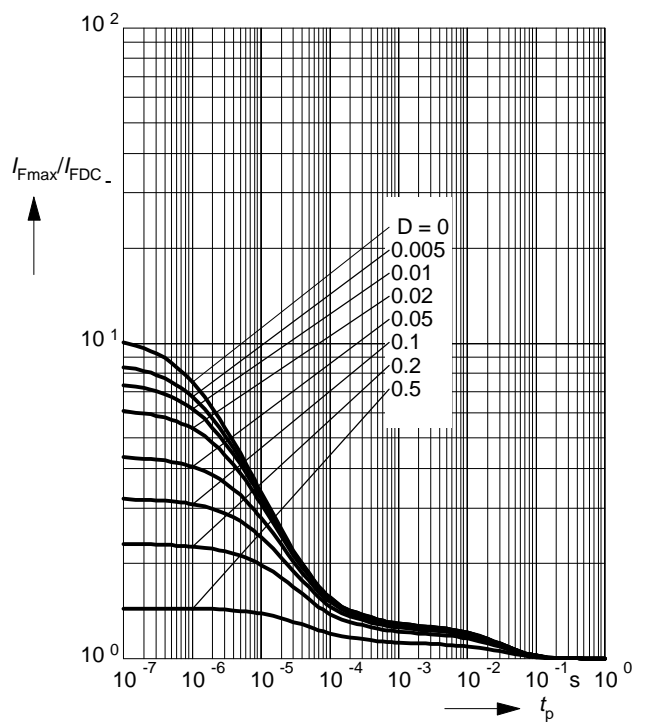
### Permissible Pulse Load $R_{THJS} = f(t_p)$

BAS 125-04W...

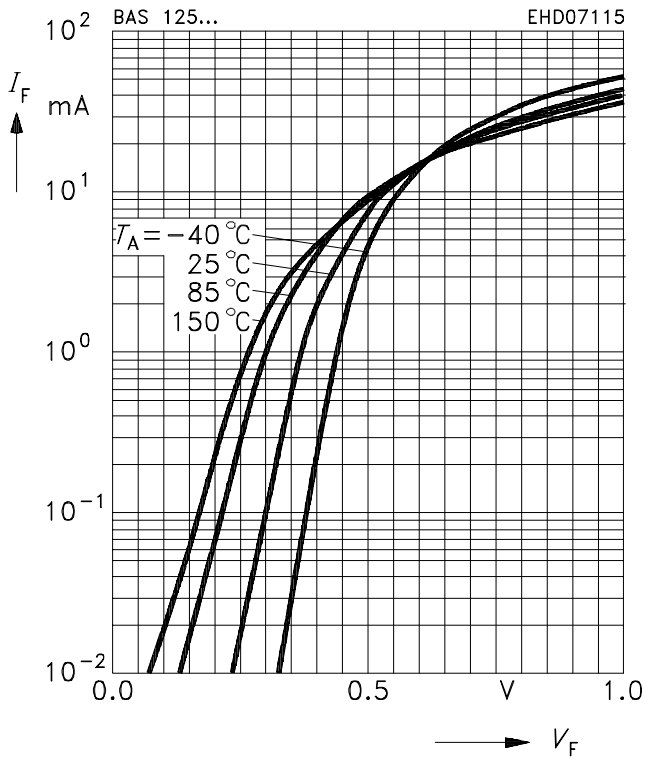


### Permissible Pulse Load $I_{Fmax}/I_{FDC} = f(t_p)$

BAS 125-04W...

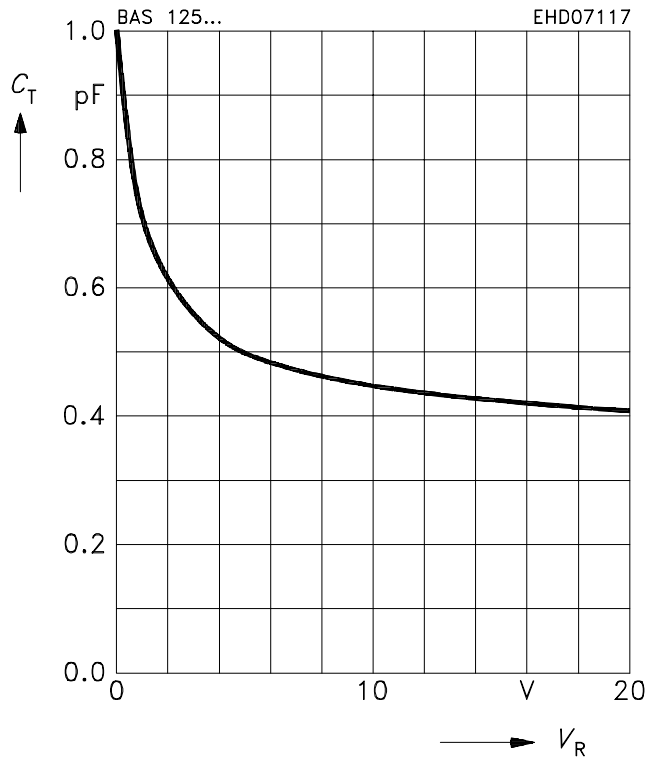


### Forward Current $I_F = f(V_F)$



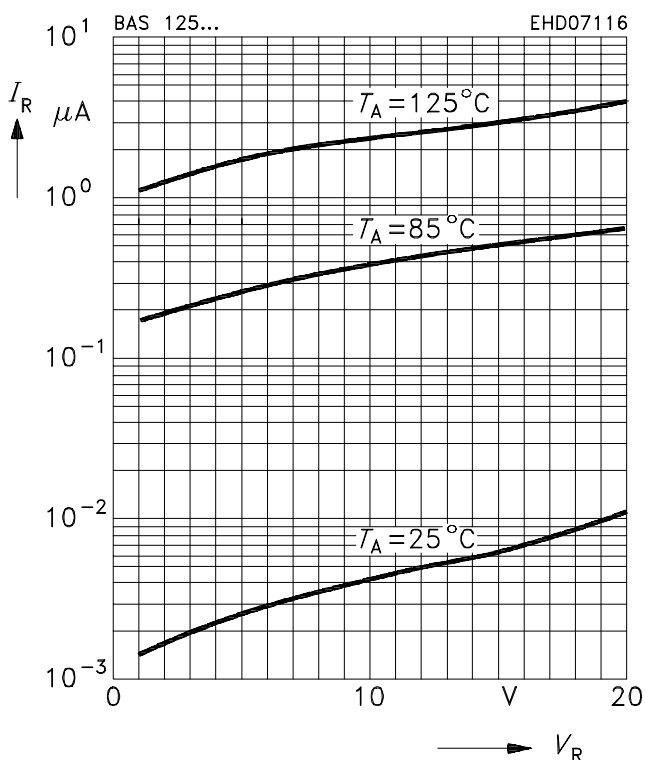
### Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



### Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



### Differential forward resistance $R_F = f(I_F)$

$f = 10\text{kHz}$

