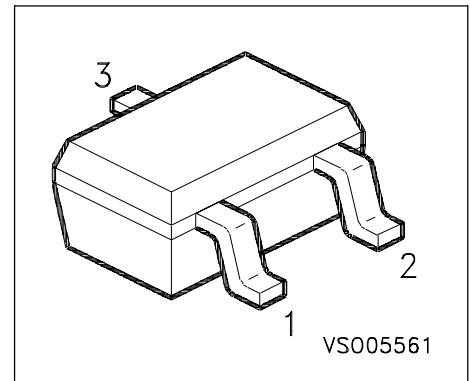


PNP Silicon RF Transistor kein Status

- For oscillators, mixer and self-oscillating mixer stages in UHF TV-tuner



Type	Marking	Ordering Code	Pin Configuration			Package
BF 569W	LHs	Q62702-F1582	1 = B	2 = E	3 = C	SOT-323

Maximum Ratings

Parameter	Symbol	Values	Unit
Collector-emitter voltage	V_{CEO}	35	V
Collector-base voltage	V_{CBO}	40	
Emitter-base voltage	V_{EBO}	3	
Collector current	I_C	30	mA
Base current	I_B	5	
Total power dissipation $T_S \leq 93^\circ\text{C}$	P_{tot}	280	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	- 65 ... + 150	

Thermal Resistance

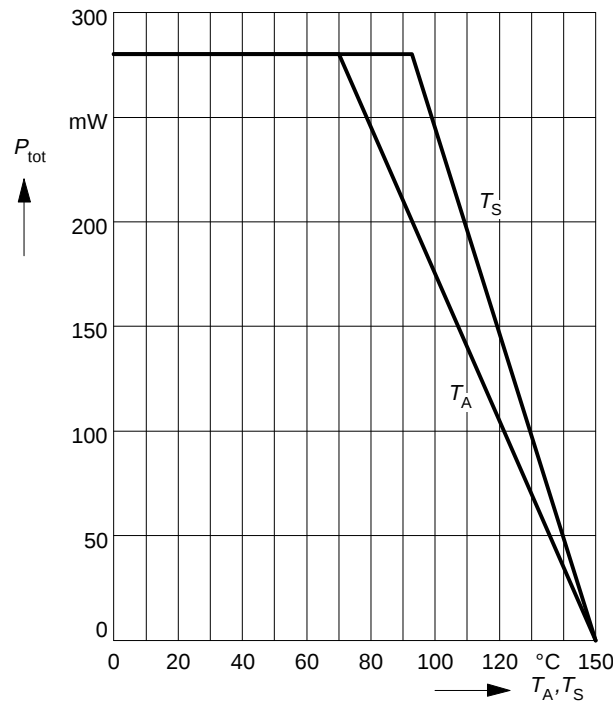
Junction - soldering point	R_{thJS}	≤ 205	K/W
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Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified.

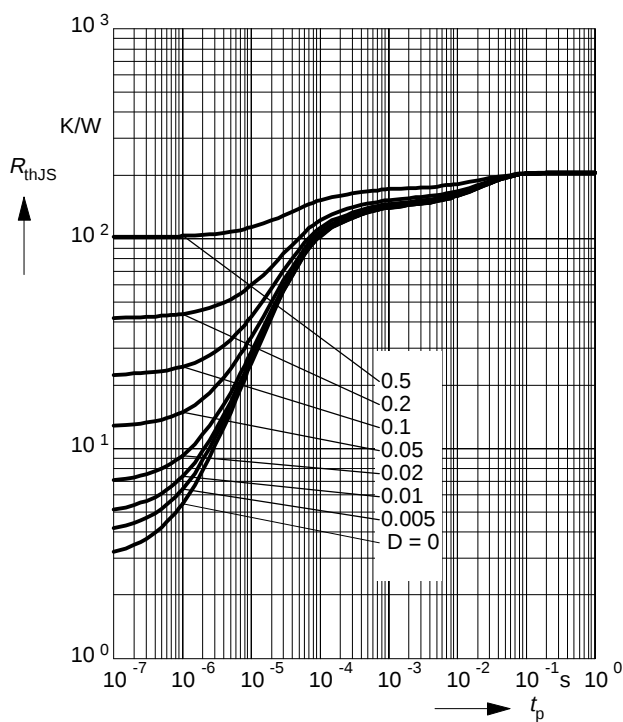
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Collector-emitter breakdown voltage $I_C = 1\text{ mA}, I_B = 0$	$V_{(BR)CEO}$	35	-	-	V
Collector-base cutoff current $V_{CB} = 20\text{ V}, I_E = 0$	I_{CBO}	-	-	100	nA
DC current gain $I_C = 3\text{ mA}, V_{CE} = 10\text{ V}$	h_{FE}	20	50	-	-
AC Characteristics					
Transition frequency $I_C = 30\text{ mA}, V_{CE} = 10\text{ V}, f = 100\text{ MHz}$	f_T	-	950	-	MHz
Collector-base capacitance $V_{CB} = 10\text{ V}, V_{BE} = v_{be} = 0, f = 1\text{ MHz}$	C_{cb}	-	0.32	-	pF
Collector-emitter capacitance $V_{CE} = 10\text{ V}, V_{BE} = v_{be} = 0, f = 1\text{ MHz}$	C_{ce}	-	0.15	-	
Noise figure $I_C = 3\text{ mA}, V_{CE} = 10\text{ V}, f = 800\text{ MHz}$ $Z_S = 60\text{ }\Omega$	F	-	4.5	-	dB
Cannon-base power gain $I_C = 3\text{ mA}, V_{CB} = 10\text{ V}, f = 800\text{ MHz}$ $R_L = 500\text{ }\Omega$	G_p	-	14.8	-	

Total power dissipation $P_{\text{tot}} = f(T_A^*, T_S)$

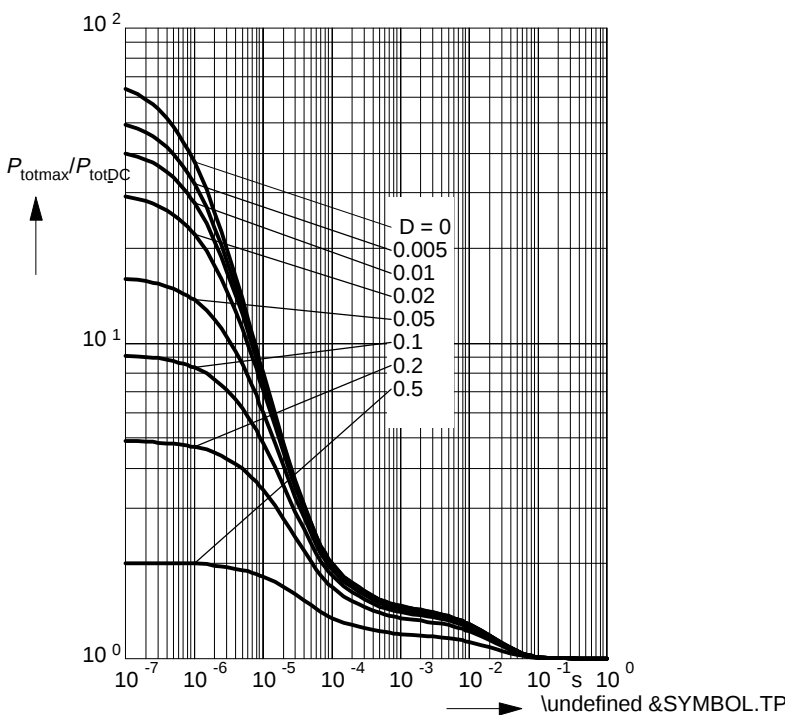
* Package mounted on epoxy



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



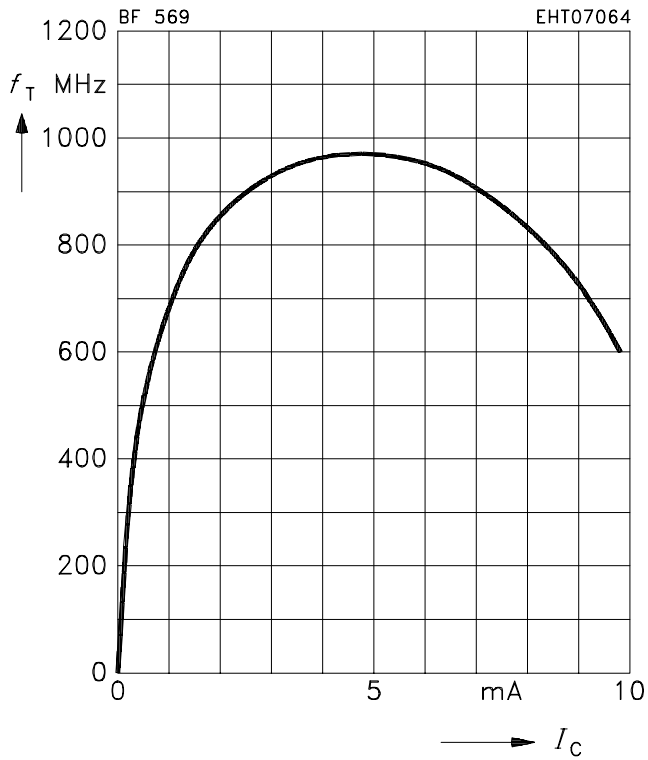
Permissible Pulse Load $P_{\text{totmax}}/P_{\text{totDC}} = f(t_p)$



Transition frequency $f_T = f(I_C)$

$f = 100\text{MHz}$

$V_{CE} = 10\text{V}$



Collector-base capacitance $C_{cb} = f(V_{CB})$

$V_{BE} = v_{be} = 0, f = 1\text{MHz}$

