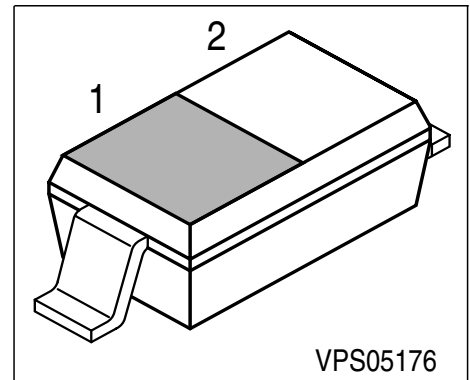


Silicon PIN Diode

- RF switch, RF attenuator for frequencies above 10 MHz
- Very low IM distortion



Type	Marking	Pin Configuration		Package
BA 597	A	1 = C	2 = A	SOD-323

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	50	V
Forward current	I_F	100	mA
Total power dissipation, $T_S \leq 40^\circ\text{C}$	P_{tot}	250	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ... 150	$^\circ\text{C}$

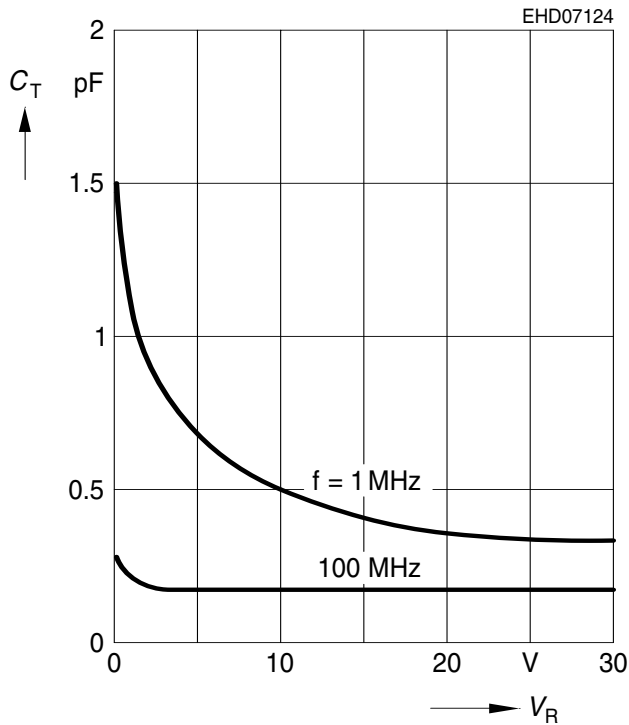
1) Package mounted on alumina 15mm x 16.7mm x 0.7mm

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current $V_R = 30\text{ V}$	I_R	-	-	20	nA
Forward voltage $I_F = 100\text{ mA}$	V_F	-	0.9	-	V
AC Characteristics					
Diode capacitance $V_R = 0\text{ V}, f = 100\text{ MHz}$ $V_R = 10\text{ V}, f = 1\text{ MHz}$	C_T	- -	0.27 0.52	- -	pF
Forward resistance $I_F = 1.5\text{ mA}, f = 100\text{ MHz}$ $I_F = 10\text{ mA}, f = 100\text{ MHz}$	r_f	- -	22 4.2	- -	Ω
Charge carrier life time $I_F = 10\text{ mA}, I_R = 6\text{ mA}, I_R = 3\text{ mA}$	τ_{rr}	-	2.5	-	μs
Series inductance	L_s	-	1.8	-	nH

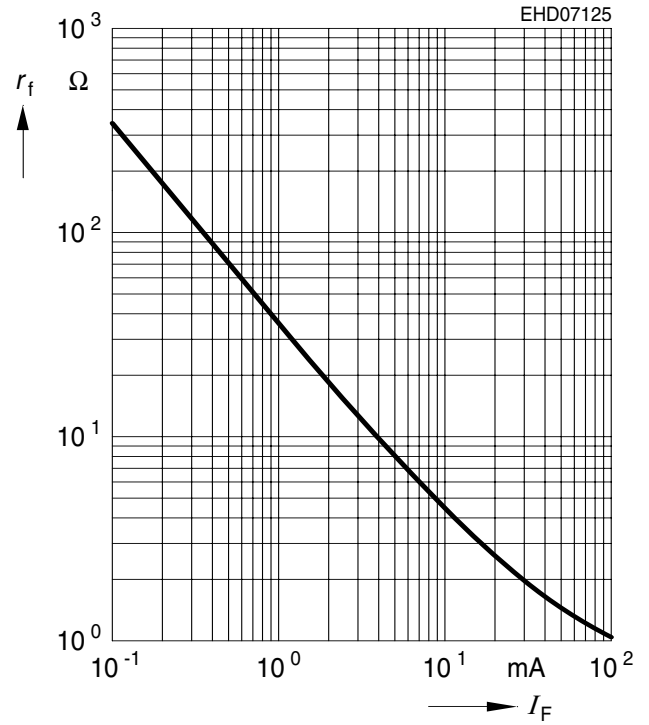
Diode capacitance $C_T = f(V_R)$

f = Parameter



Forward resistance $r_f = f(I_F)$

$f = 100 \text{ MHz}$



3rd Harmonic intercept point vs forward current

$f = 100 \text{ MHz}$

