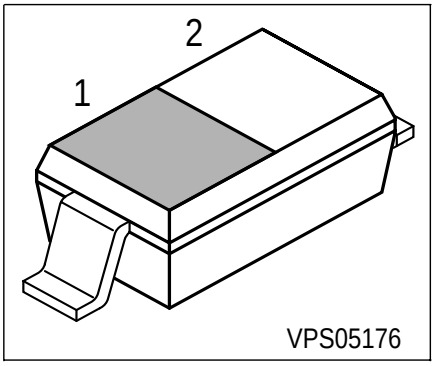
Silicon Schottky Diode

- DBS mixer applications up to 12 GHz
- Low noise figure
- Low barrier type



ESD: **E**lectro**s**tatic **d**ischarge sensitive device, observe handling precaution!

Type	Marking	Pin Configuration		Package
BAT14-03W	O/white	1 = C	2 = A	SOD323

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	4	V
Forward current	I_F	90	mA
Total power dissipation, $T_S \leq 85$ °C	P_{tot}	100	mW
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	-55 ... 125	°C
Storage temperature	T_{stg}	-55 ... 150	°C

Thermal Resistance

Junction - soldering point[1)]	R_{thJS}	≤690	K/W

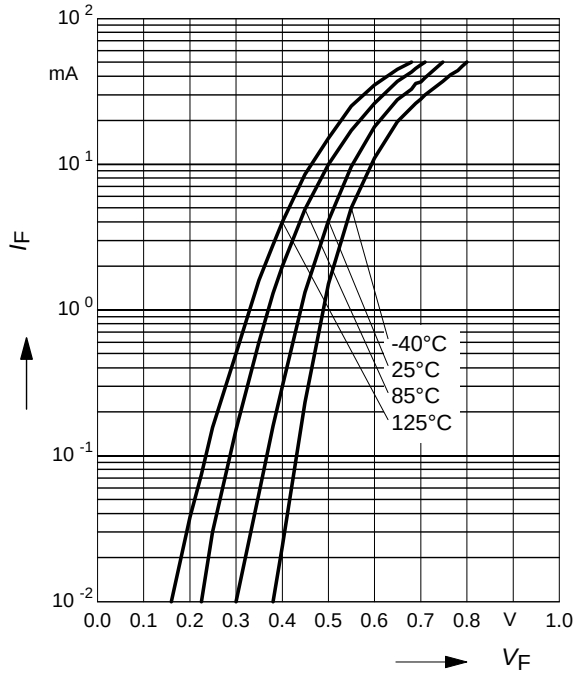
[1)]For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics (per diode)					
Breakdown voltage $I_{(BR)}$ = 5 µA	$V_{(BR)}$	4	-	-	V
Forward voltage	V_F				
I_F = 1 mA		0.36	0.43	0.52	
I_F = 10 mA		0.48	0.55	0.66	
AC characteristics (per diode)					
Diode capacitance V_R = 0 V, f = 1 MHz	C_T	-	0.22	0.35	pF
Forward resistance IF = 10mA / 50mA	R_F	-	5.5	-	Ω

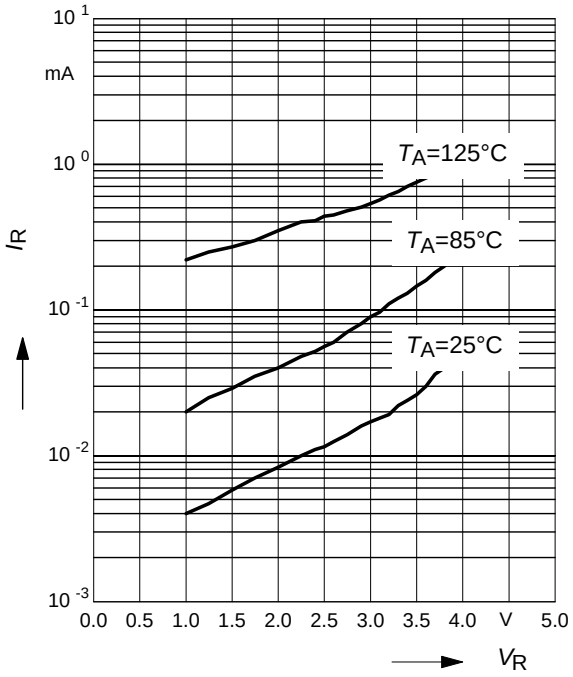
Forward current $I_F = f(V_F)$

T_A = parameter



Reverse current $I_R = f(V_R)$

T_A = Parameter



Diode capacitance $C_T = f(V_R)$

f = 1MHz