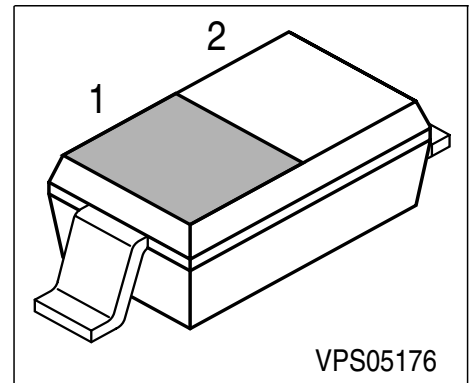


Silicon Schottky Diode

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



ESD: Electrostatic discharge sensitive device, observe handling precaution!

Type	Marking	Pin Configuration		Package
BAT 14-03W	O/white	1 = C	2 = A	SOD-323

Maximum Ratings

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

Thermal Resistance

Junction - ambient ¹⁾	R_{thJA}	≤ 450	K/W
Junction - soldering point	R_{thJS}	≤ 690	

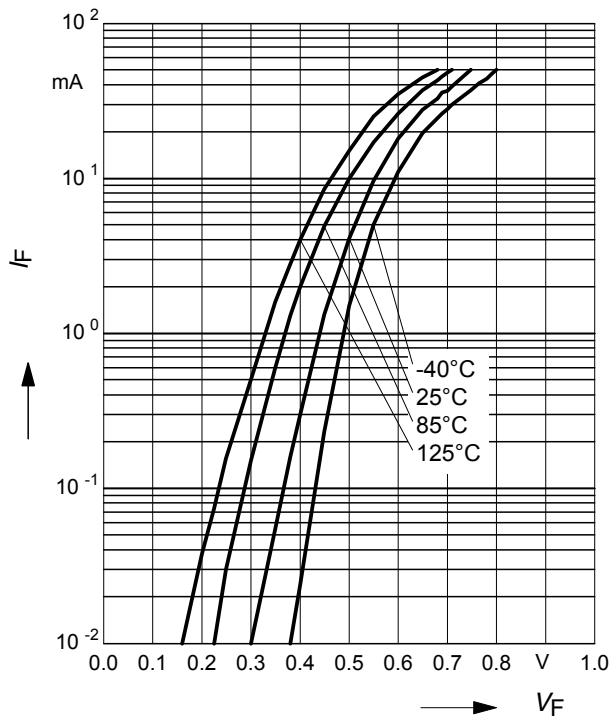
1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm² Cu

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

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

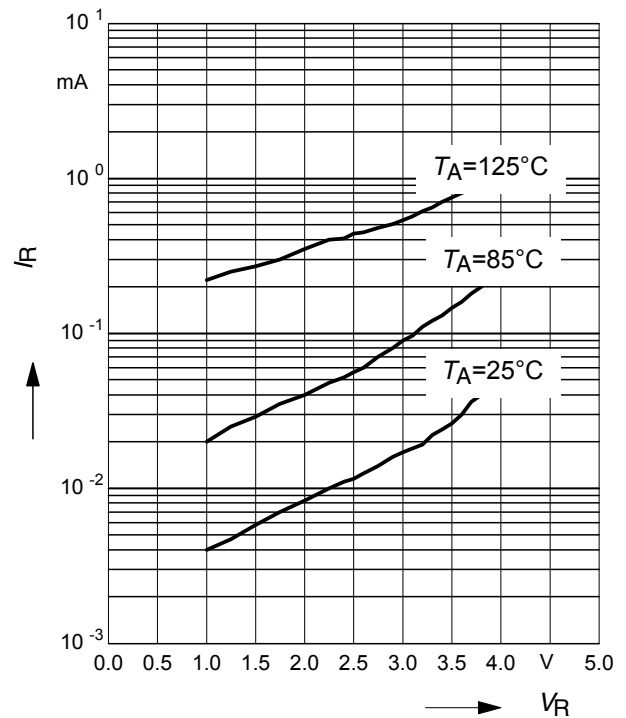
Forward current $I_F = f(V_F)$

$T_A = \text{parameter}$



Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$

