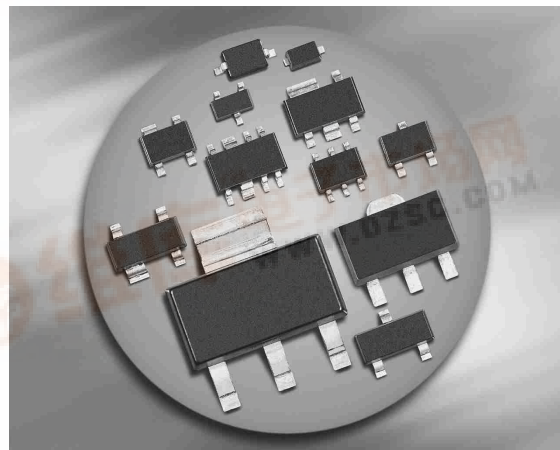


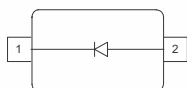


Silicon Schottky Diode

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



BAT14-03W



ESD: Electrostatic discharge sensitive device, observe handling precaution!

Type	Package	Configuration	L_S (nH)	Marking
BAT14-03W	SOD323	single	1.8	O/white

Maximum Ratings at $T_A = 25^\circ\text{C}$, unless otherwise specified

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	
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}	≤ 690	K/W

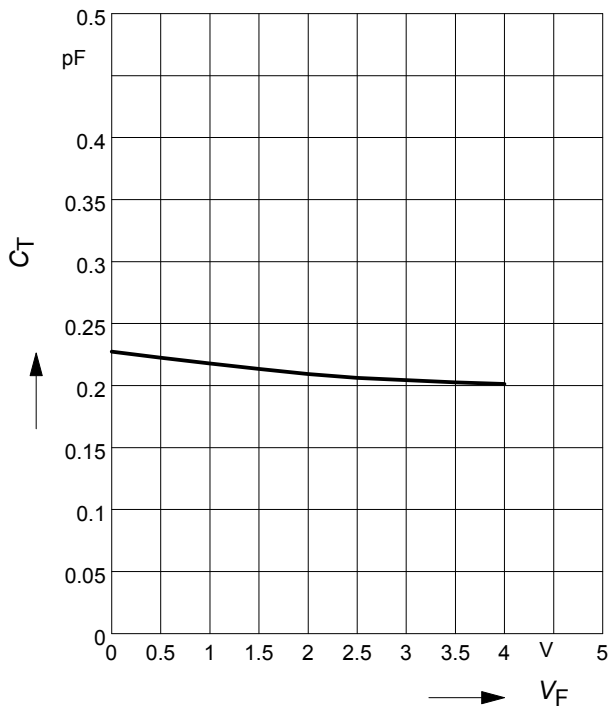
¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Breakdown voltage $I_{(BR)} = 10\ \mu\text{A}$	$V_{(BR)}$	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					
Diode capacitance $V_R = 0\ ,\ f = 1\ \text{MHz}$	C_T	-	0.22	0.35	pF
Differential forward resistance $I_F = 10\text{mA} / 50\text{mA}$	R_F	-	5.5	-	Ω

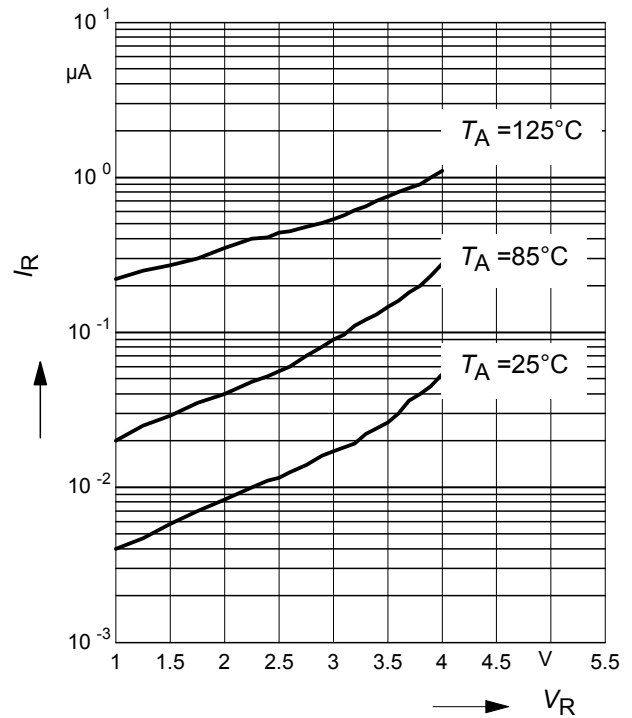
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



Forward current $I_F = f(V_F)$

