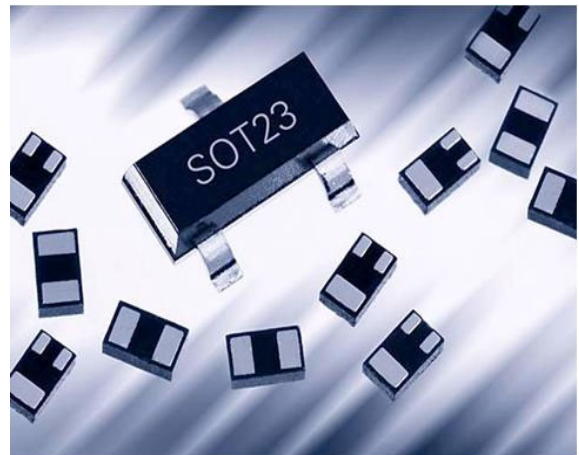
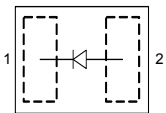


Silicon Schottky Diode

- RF Schottky diode for mixer applications up to 26 GHz
- Extremely low inductance combined with ultra low device capacitance
- Very stable performance for all major parameters
- Package size: 0.62 x 0.31 x 0.31 mm³ only
- Pb-free (RoHS compliant) package


BAT24-02LS


Type	Package	Configuration	L_S (nH)	Marking
BAT24-02LS	TSSLP-2-1	single, leadless	0.2 ±0.05	S

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	110	mA
Total power dissipation $T_S \leq 73^\circ\text{C}$	P_{tot}	100	mW
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	-55 ... 150	
Storage temperature	T_{stg}	-55 ... 150	

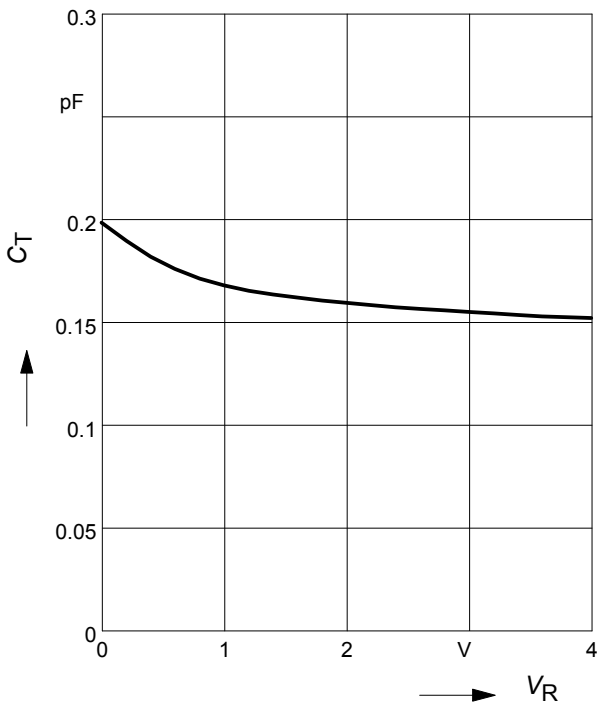
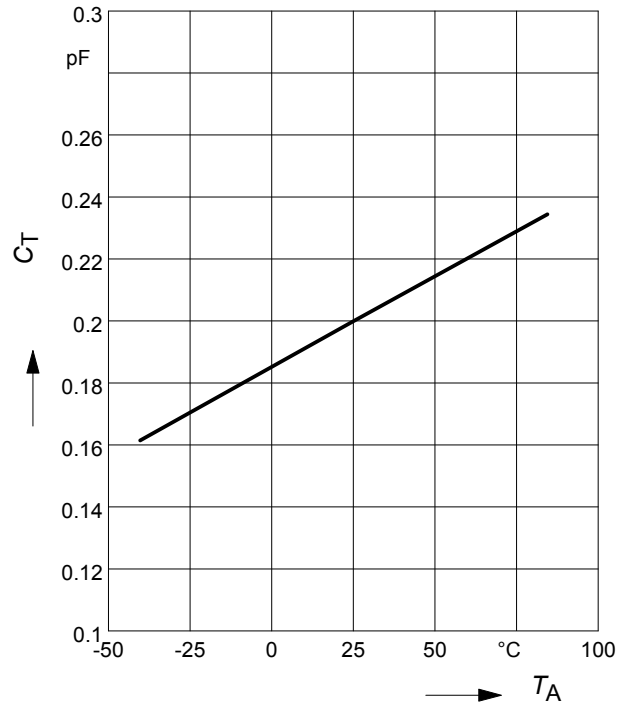
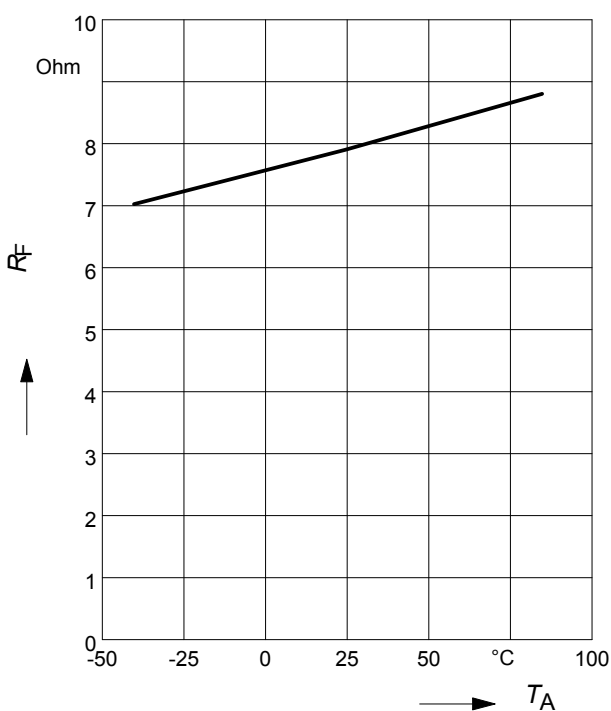
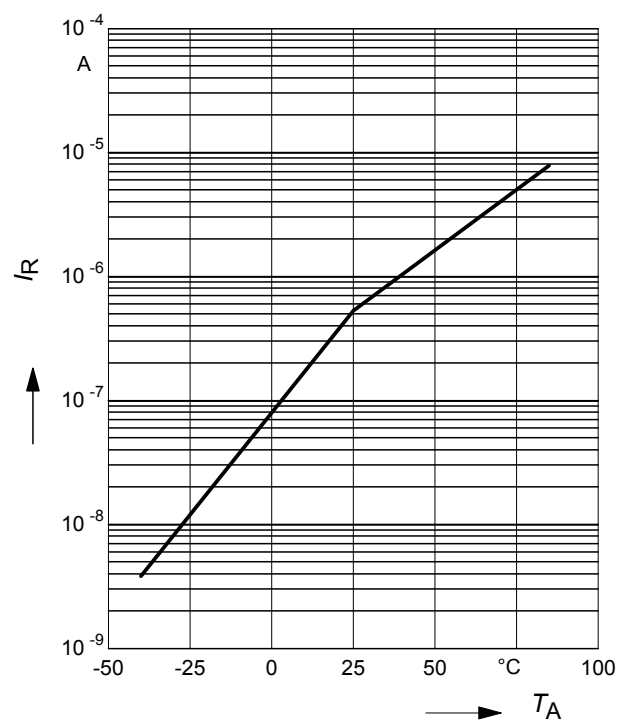
Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}	≤ 770	K/W

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

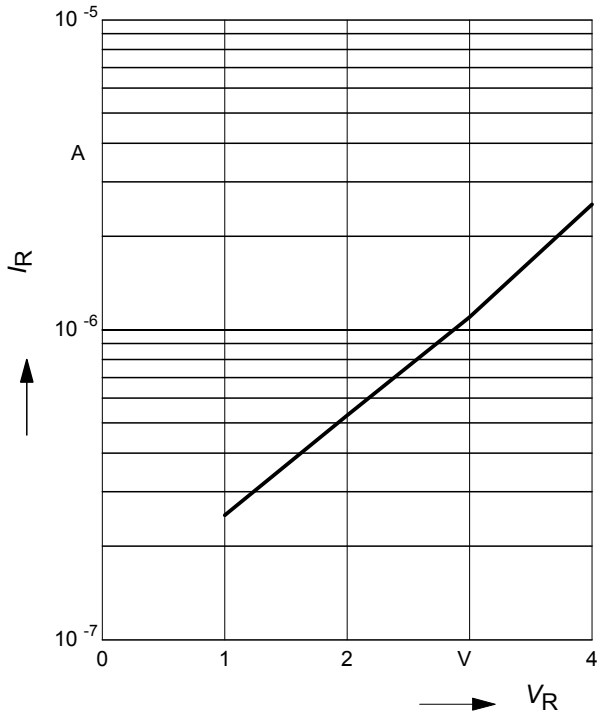
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Breakdown voltage $I_{(BR)} = 10 \mu\text{A}$	$V_{(BR)}$	4	-	-	V
Reverse current $V_R = 1 \text{ V}$	I_R	-	-	5	μA
Forward voltage $I_F = 1 \text{ mA}$ $I_F = 10 \text{ mA}$	V_F	0.16 0.25	0.23 0.32	0.32 0.41	V
AC Characteristics					
Diode capacitance $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_T	-	0.2	0.23	pF
Differential forward resistance $I_F = 10 \text{ mA} / 50 \text{ mA}$	R_F	-	8	10	Ω

Diode capacitance $C_T = f(V_R)$
 $f = 1\text{MHz}, T_A = 25\text{ }^\circ\text{C}$

Diode capacitance $C_T = f(T_A)$
 $V_R = 0\text{ V}, f = 1\text{MHz}$

Differential forward resistance $R_F = f(T_A)$
 $I_F = 10\text{ mA} / 50\text{ mA}$

Reverse current $I_R = f(T_A)$
 $V_R = 1\text{ V}$


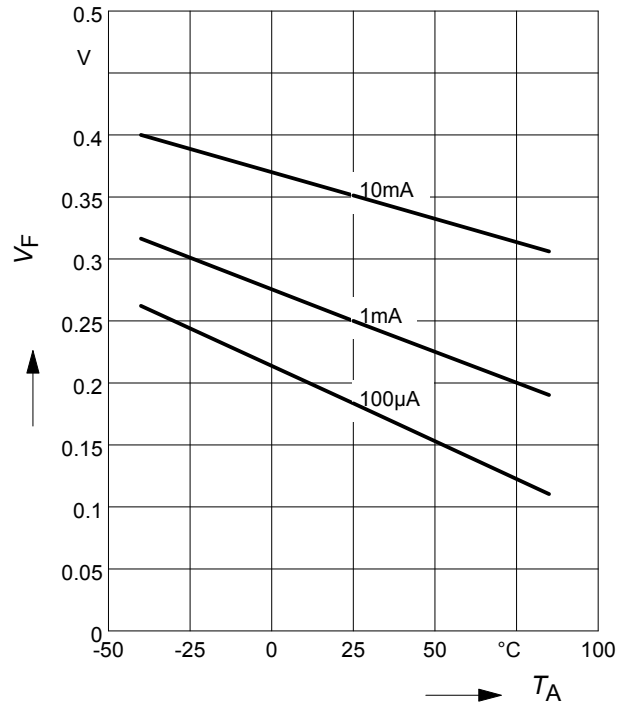
Reverse current $I_R = f(V_R)$

$T_A = 25\text{ }^\circ\text{C}$



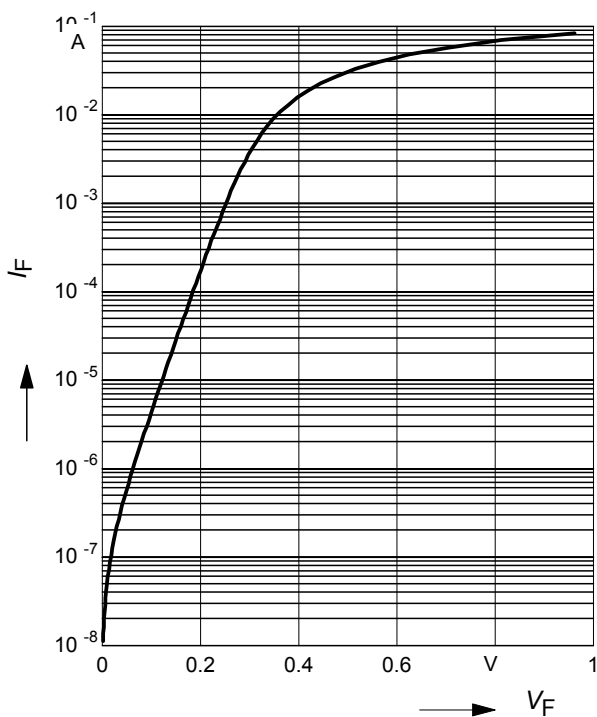
Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$

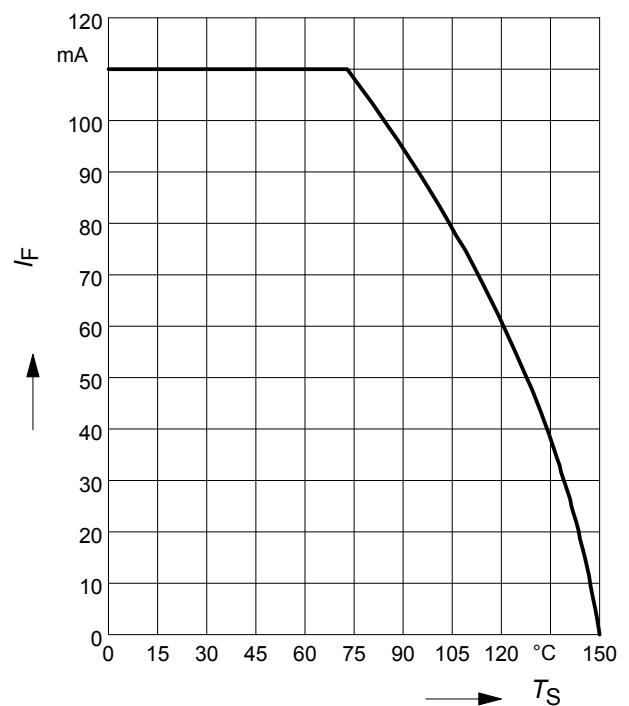


Forward current $I_F = f(V_F)$

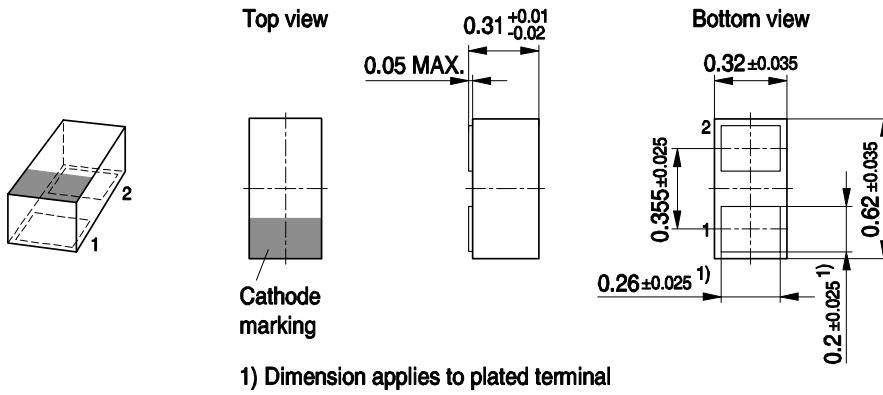
$T_A = 25\text{ }^\circ\text{C}$



Forward current $I_F = f(T_S)$

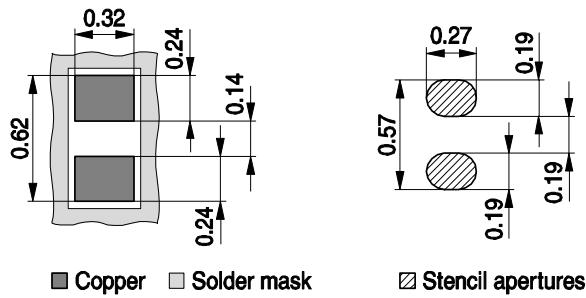


Package Outline

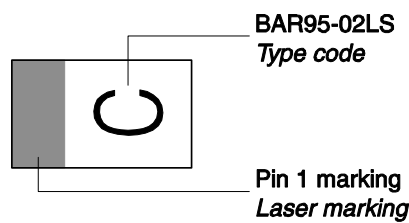


Foot Print

For board assembly information please refer to Infineon website "Packages"

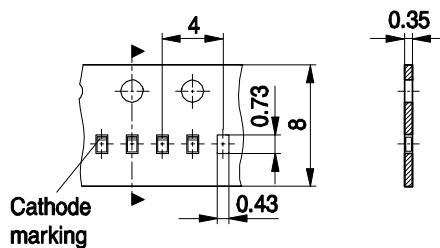


Marking Layout (Example)



Standard Packing

Reel ø180 mm = 15.000 Pieces/Reel



Edition 2009-11-16

**Published by
Infineon Technologies AG
81726 Munich, Germany**

**© 2009 Infineon Technologies AG
All Rights Reserved.**

Legal Disclaimer

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation, warranties of non-infringement of intellectual property rights of any third party.

Information

For further information on technology, delivery terms and conditions and prices, please contact the nearest Infineon Technologies Office ([<www.infineon.com>](http://www.infineon.com)).

Warnings

Due to technical requirements, components may contain dangerous substances. For information on the types in question, please contact the nearest Infineon Technologies Office.

Infineon Technologies components may be used in life-support devices or systems only with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Infineon:](#)

[BAT 24-02LS E6327](#) [BAT2402LSE6327XTSA1](#)