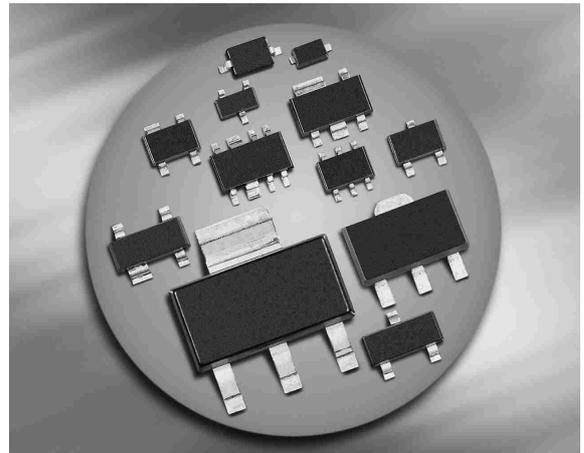
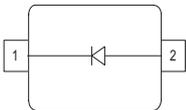


**Silicon Tuning Diodes**

- Extended frequency range up to 2.5 GHz; special design for use in TV-sat tuners
- High capacitance ratio
- Pb-free (RoHS compliant) package


**BB833**


Type	Package	Configuration	$L_S$ (nH)	Marking
BB833	SOD323	single	1.8	white X

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

Parameter	Symbol	Value	Unit
Diode reverse voltage	$V_R$	30	V
Peak reverse voltage- $R \geq 5\text{k}\Omega$	$V_{RM}$	35	
Forward current	$I_F$	20	mA
Operating temperature range	$T_{op}$	-55 ... 150	°C
Storage temperature	$T_{stg}$	-55 ... 150	

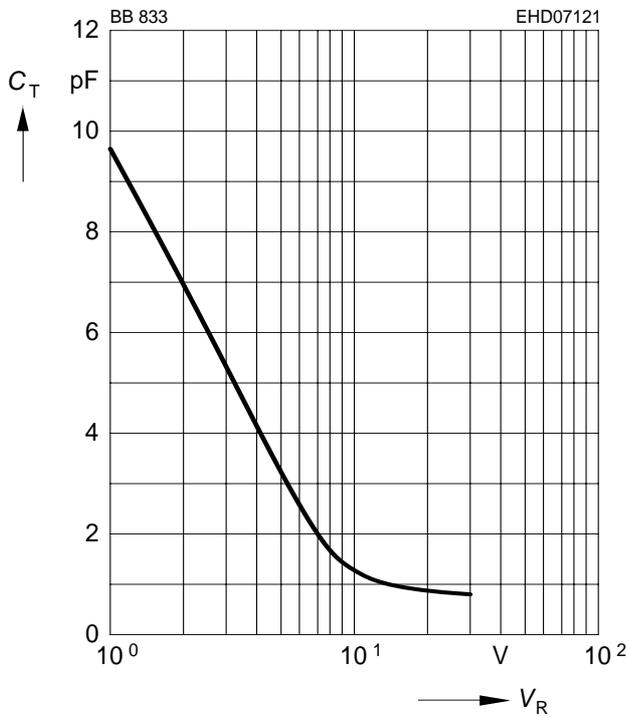
**Electrical Characteristics at  $T_A = 25^\circ\text{C}$ , unless otherwise specified**

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC Characteristics</b>					
Reverse current $V_R = 30\text{ V}$ $V_R = 30\text{ V}, T_A = 85^\circ\text{C}$	$I_R$	- -	- -	20 500	nA
<b>AC Characteristics</b>					
Diode capacitance $V_R = 1\text{ V}, f = 1\text{ MHz}$ $V_R = 28\text{ V}, f = 1\text{ MHz}$	$C_T$	8.5 0.6	9.3 0.75	10 0.9	pF
Capacitance ratio $V_R = 1\text{ V}, V_R = 28\text{ V}, f = 1\text{ MHz}$	$C_{T1}/C_{T28}$	11	12.4	-	
Capacitance matching <sup>1)</sup> $V_R = 1\text{ V}, V_R = 28\text{ V}, f = 1\text{ MHz}$	$\Delta C_T/C_T$	-	-	3	%
Series resistance $V_R = 1\text{ V}, f = 470\text{ MHz}$	$r_S$	-	1.8	-	$\Omega$

<sup>1</sup>For details please refer to Application Note 047.

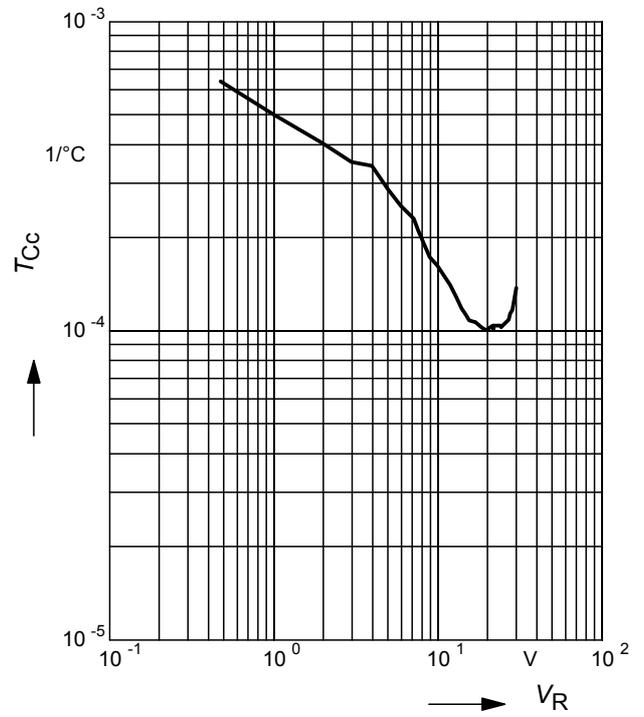
Diode capacitance  $C_T = f(V_R)$

$f = 1\text{MHz}$

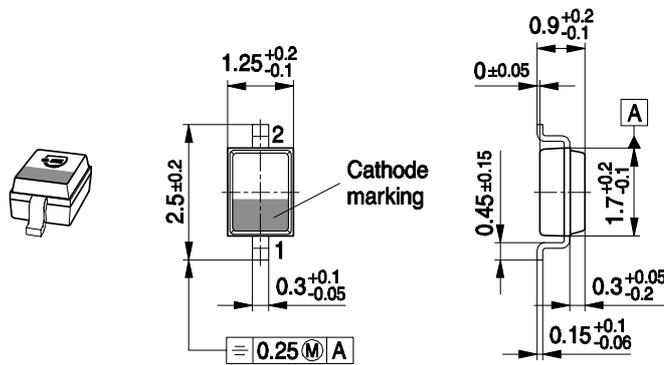


Temperature coefficient of the diode

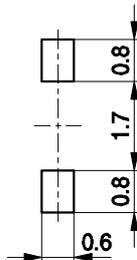
capacitance  $T_{Cc} = f(V_R)$



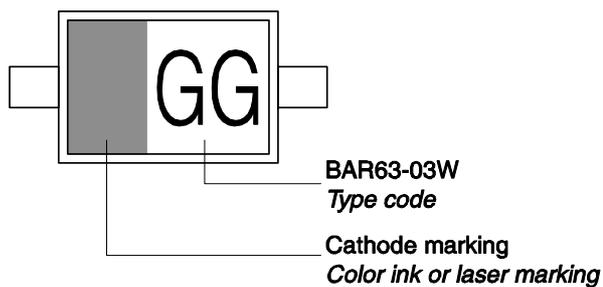
Package Outline



Foot Print

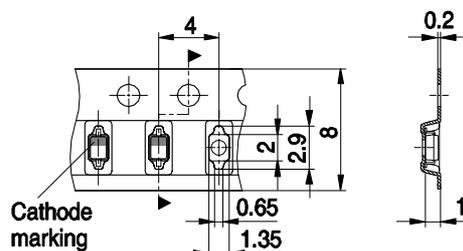


Marking Layout (Example)



Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel  
 Reel ø330 mm = 10.000 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.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Varactor Diodes](#) category:*

*Click to view products by [Infineon](#) manufacturer:*

Other Similar products are found below :

[MA46H201-1056](#) [MAVR-001330-12790T](#) [MVAM108](#) [SMV1233-079](#) [SVC704-TL-E](#) [SVC710-TL-E](#) [1SV324TPH3F](#) [MAVR-000083-0287AT](#) [MAVR-044769-12790T](#) [SVC270-TL-E](#) [RKV501KJ#R1](#) [MA46H204-1056](#) [MA46H202-1088](#) [MA46H202-1056](#) [MA46H203-1088](#) [MA46H203-1056](#) [MA46H120](#) [MA46H070-1056](#) [SMV1275-079LF](#) [SVC272-TL-E](#) [GC2510-17](#) [MAVR-044769-02870T](#) [MGV1252208052X](#) [MAVR-001350-12790T](#) [SMV1251-040LF](#) [MAVR-000409-0287FT](#) [MX1977](#) [KVX2301-23-0](#) [KVX3901A-23-4](#) [KVX1501-23-0](#) [KVX2132-23-0](#) [KVX38S2-23-0](#) [KVX3901A-23-0](#) [KVX2122-23-0](#) [MPV2100-206](#) [KVX2001-23-0](#) [GC1213-23-0](#) [GC15006-152](#) [MA46603-276](#) [SMVA1253-079LF](#) [MGV125-08-0805-2](#) [MAVR-000079-0287FT](#) [MA46H072-1056](#) [MA46H071-1056](#) [MAVR-000120-12030P](#) [BB844E6327HTSA1](#) [BB535E7904HTSA1](#) [BBY5303WE6327HTSA1](#) [BBY5802VH6327XTSA1](#) [BBY6602VH6327XTSA1](#)