

BB133

VHF VARIABLE CAPACITANCE DIODE

FEATURES

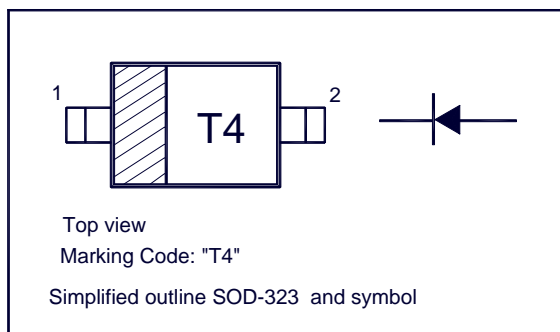
- Excellent linearity
- Excellent matching to 0.7% DMA
- Very small plastic SMD package
- C28: 2.5 Pf ; ratio:16
- Low series resistance

APPLICATIONS

- Electronic tuning in VHF television tuners, band B up to 460 MHz
- VCO

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

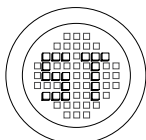


DESCRIPTION

- Silicon diode in a small plastic SMD SOD-323 package.
- The excellent matching performance is achieved by gliding matching and a direct matching assembly procedure.

Absolute Maximum Ratings (Ta = 25 °C)

Parameter	Symbol	Limits	Unit
Diode reverse voltage	V_R	30	V
Forward current	I_F	20	mA
Operating temperature range	T_{op}	-55...+125	°C
Storage temperature	T_{stg}	-55 ... +150	°C



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РАДИОТЕХ

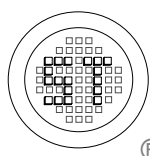
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Electrical Characteristics (Ta = 25 °C)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse current	I_R	- -	- -	10 200	nA	$V_R = 30V$ $V_R = 30V, T_j = 85^\circ C$ (see Fig.3)
Diode capacitance	C_d	38 2.2	- -	46 2.6	pF	$V_R = 0.5V, f = 1MHz$ $V_R = 28V, f = 1MHz$ (see Fig2 and 4)
Capacitance ratio	$C_{d(0.5v)} / C_{d(28v)}$	14	-	21	-	F = 1MHz
Capacitance matching	$\Delta C_d / C_d$	-	-	0.7	%	$V_R = 0.5V, V_R = 28V$ 4 diodes sequence (gliding)
		-	-	2	%	$V_R = 0.5V, V_R = 28V$ 15 diodes sequence (gliding)
Series resistance ¹⁾	r_s	-	-	0.9	Ω	F = 100MHz

¹⁾ V_R is the value at which $C_d = 30$ pF.



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Dated : 30/08/2004

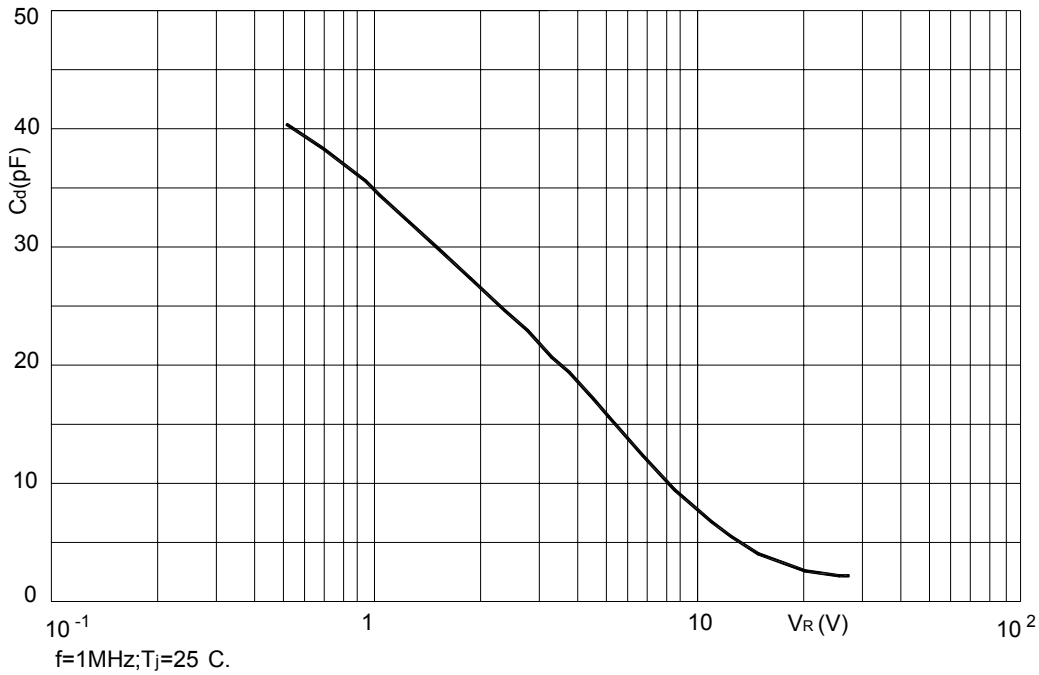


Fig. 2 Diode capacitance as a function of reverse voltage; typical values.

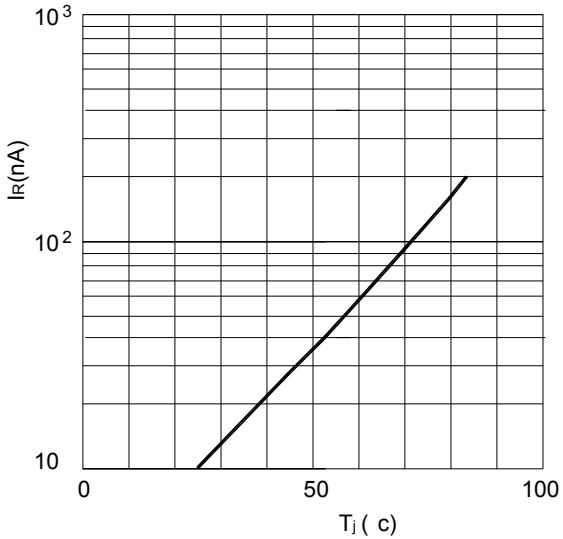


Fig.3 Reverse current as a function of junction temperature; maximum values.

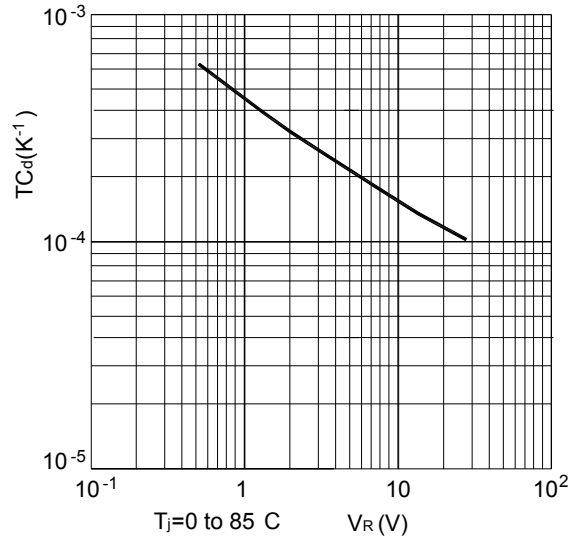
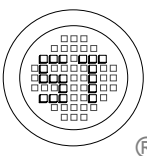
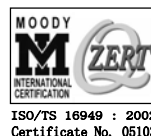


Fig.4 Temperature coefficient of diode capacitance as a function of reverse voltage; typical values



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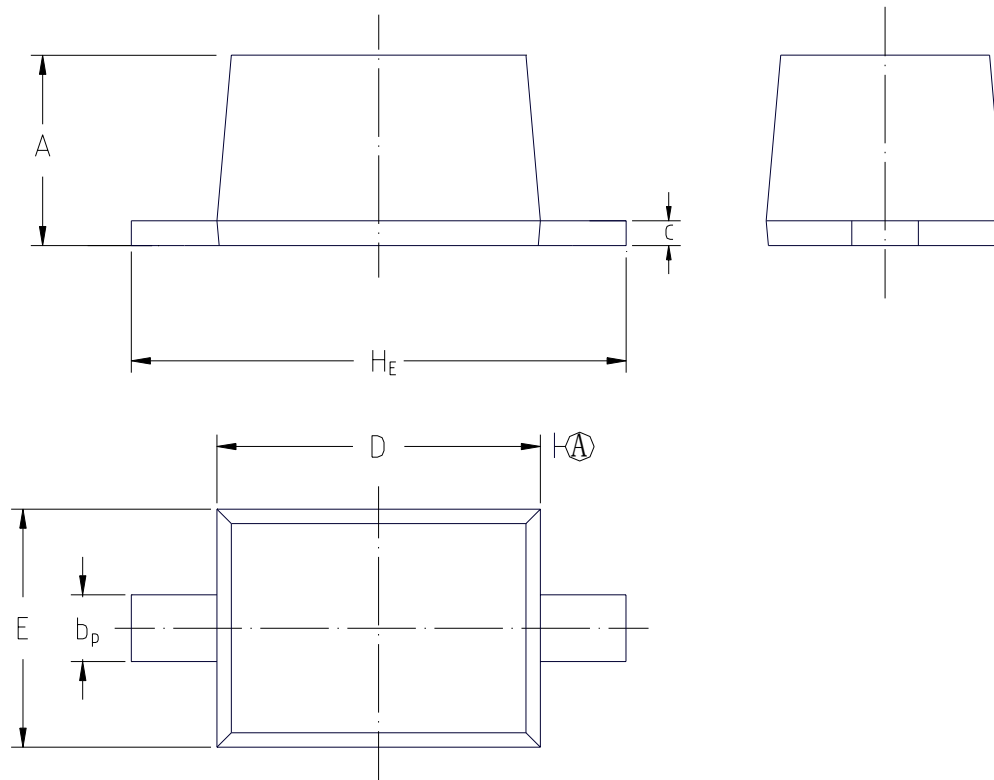


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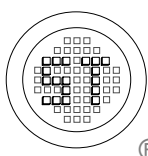
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PACKAGE OUTLINE

SOD-323

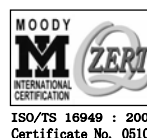


UNIT	A	b _p	c	D	E	H _E
mm	1.10 0.80	0.40 0.25	0.15 0.00	1.80 1.60	1.35 1.15	2.80 2.30



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