

BB535ST

SILICON TUNING DIODE

FEATURES

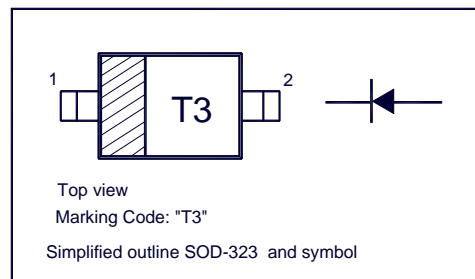
- High capacitance ratio
- Low series inductance
- Low series resistance
- Excellent uniformity and matching due to "in-line" matching assembly procedure

APPLICATIONS

- For UHF-TV-tuners

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

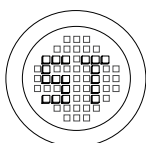


DESCRIPTION

- Silicon tuning diode in a small plastic SMD SOD-323 package

Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

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



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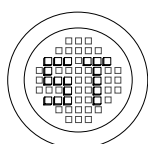
РАДИОТЕХ

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Electrical Characteristics (Ta = 25 °C)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse current	I_R	- -	- -	10 200	nA	$V_R = 30V$ $V_R = 30V, T_a = 85^\circ C$
Diode capacitance	C_T	17.5 14.01 2.05 1.9	18.7 15 2.24 2.1	20 16.1 2.4 2.3	pF	$V_R = 1V, f = 1MHz$ $V_R = 2V, f = 1MHz$ $V_R = 25V, f = 1MHz$ $V_R = 28V, f = 1MHz$
Capacitance ratio	C_{T2} / C_{T25}	6	6.7	7.5	-	$V_R = 2V, V_R = 25V, f = 1MHz$
Capacitance ratio	C_{T1} / C_{T28}	8.2	8.9	9.8	-	$V_R = 1V, V_R = 28V, f = 1MHz$
Capacitance matching	$\Delta C_T / C_T$	-	-	2.5	%	$V_R = 1V$ to $28V, f = 1MHz$ 7 diodes sequence
Series resistance	r_s	-	0.58	0.75	Ω	$V_R = 3V, f = 470MHz$
Series inductance	L_s	-	1.8	-	nH	



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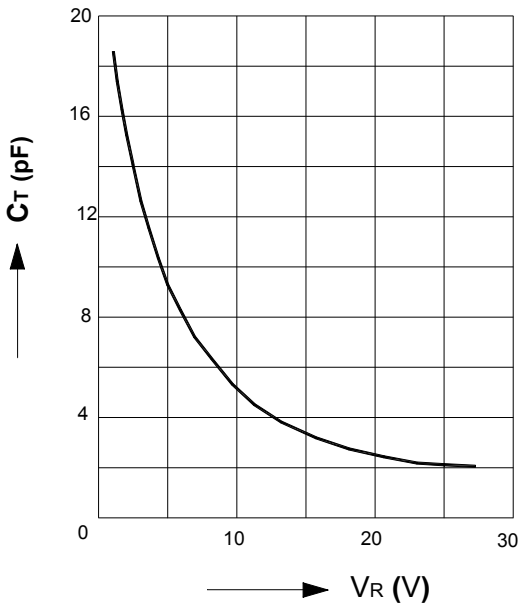
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Dated : 30/08/2004

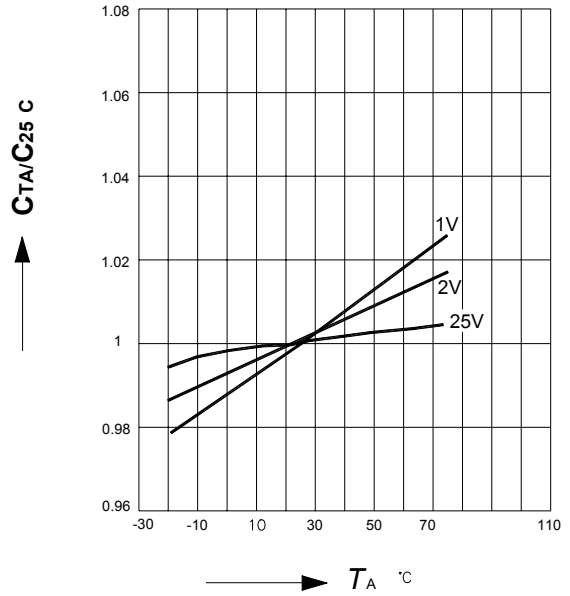
Diode capacitance

$C_T = f(V_R), f = 1\text{MHz}$

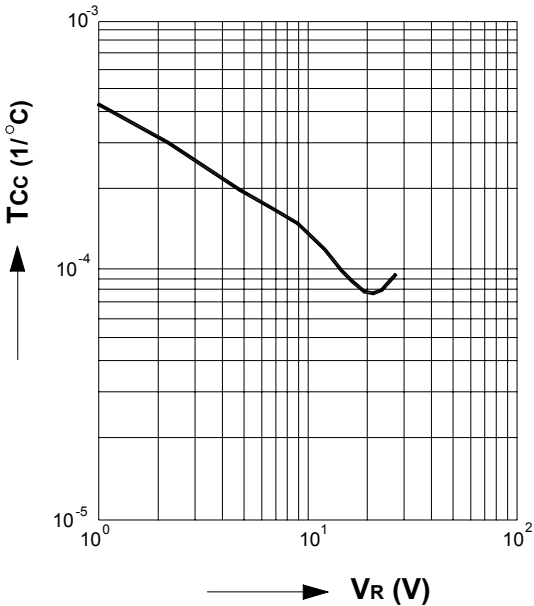


Normalized diode capacitance

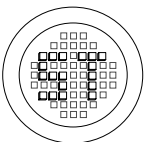
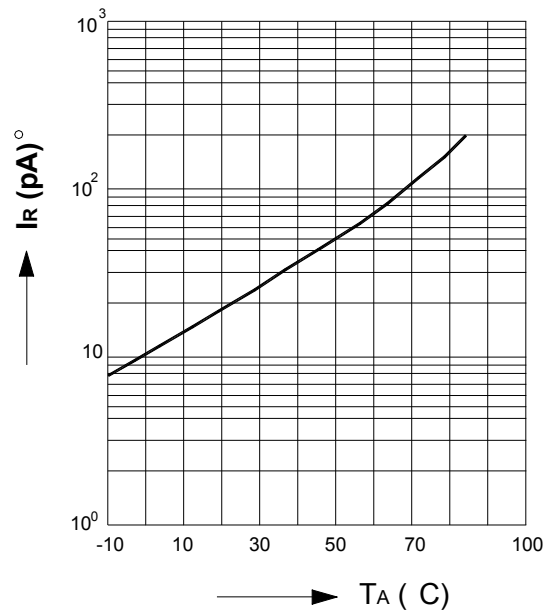
$C(T_A)/C(25\text{ C}) = f(T_A); f = 1\text{MHz}$
 $V_R = \text{Parameter}$



Temperature coefficient of the diode capacitance, $T_{Cc} = f(V_R)$



Reverse current $I_R = f(T_A), V_R = 28\text{V}$



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ISO/TS 16949 : 2002
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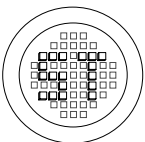
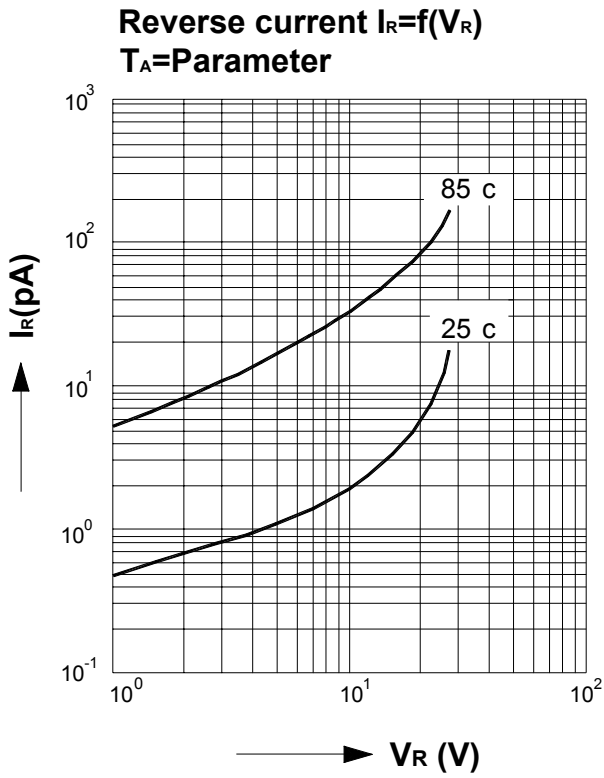
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ISO 9001:2000
Certificate No. 050698

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ISO 14001:2004
Certificate No. 71116



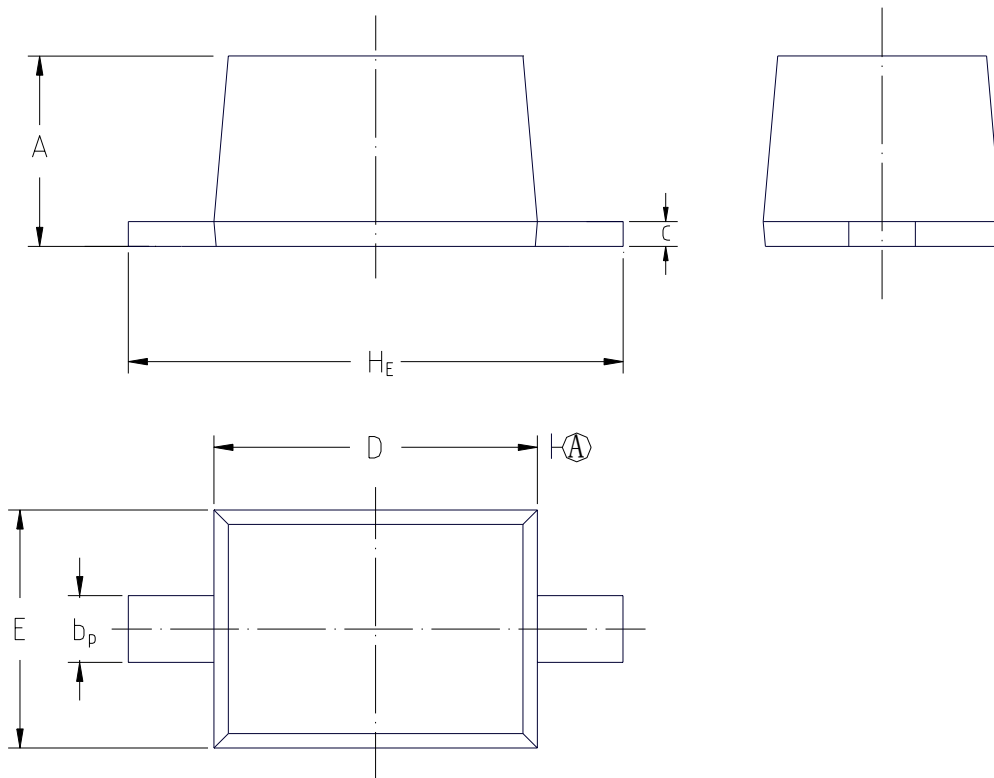
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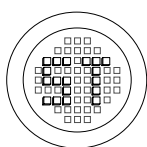
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PACKAGE OUTLINE

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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