

BA592ST

SILICON RF SWITCHING DIODE

FEATURES

- Very low forward resistance
(typ. $0.45\ \Omega$ @ 3 mA)
- Small capacitance

APPLICATIONS

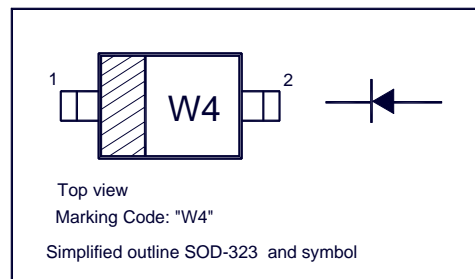
- For band switching in TV/VTR tuners and mobile applications

DESCRIPTION

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

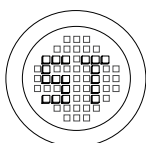
PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Limits	Unit
Diode reverse voltage	V_R	35	V
Forward current	I_F	100	mA
Junction temperature	T_J	150	$^\circ\text{C}$
Operating temperature range	T_{op}	-55...+125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ... +150	$^\circ\text{C}$
Junction – soldering point	R_{thJS}	135	K/W



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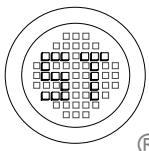
РАДИОТЕХ

Тел.: (495) 795-0805
Факс: (495) 234-1603
Эл. почта: info@rct.ru
Веб: www.rct.ru

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Electrical Characteristics (Ta = 25 °C)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse current	I_R	-	-	20	nA	$V_R = 20V$
Forward voltage	V_F	-	-	1	V	$I_F = 100mA$
Diode capacitance	C_T	0.65 0.6 -	0.92 0.85 1	1.4 1.1 -	pF	$V_R = 1V, f = 1MHz$ $V_R = 3V, f = 1MHz$ $V_R = 0V, f = 100MHz$
Reverse parallel resistance	R_P	-	100	-	$k\Omega$	$V_R = 0V, f = 100MHz$
Forward resistance	r_f	- -	0.45 0.36	0.7 0.5	Ω	$I_F = 3mA, f = 100MHz$ $I_F = 10mA, f = 100MHz$
Charge carrier life time	τ_{rr}	-	120	-	ns	$I_F = 10mA, I_R = 6mA$, measured at $I_R = 3mA, R_L = 100\Omega$
I-region width	W_I	-	3	-	μm	
Series inductance	L_s	-	1.8	-	nH	



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ISO/TS 16949 : 2002
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ISO 14001
Certificate No. 7116

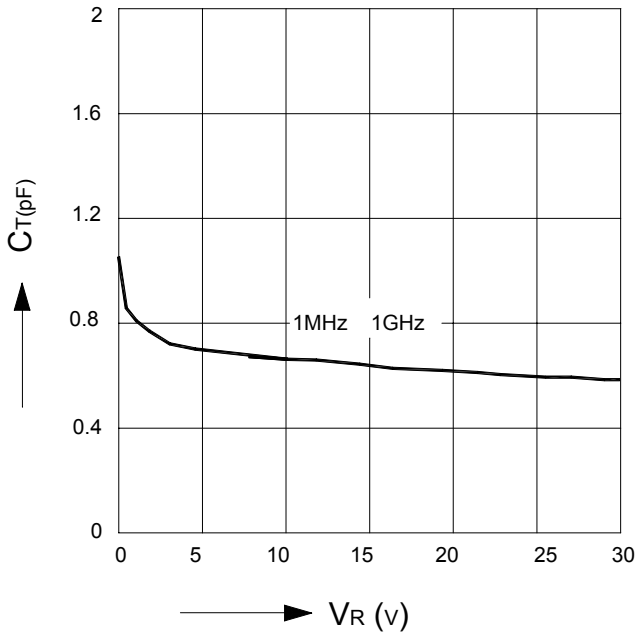


ISO 9001 : 2000
Certificate No. 550-159-04-002-04

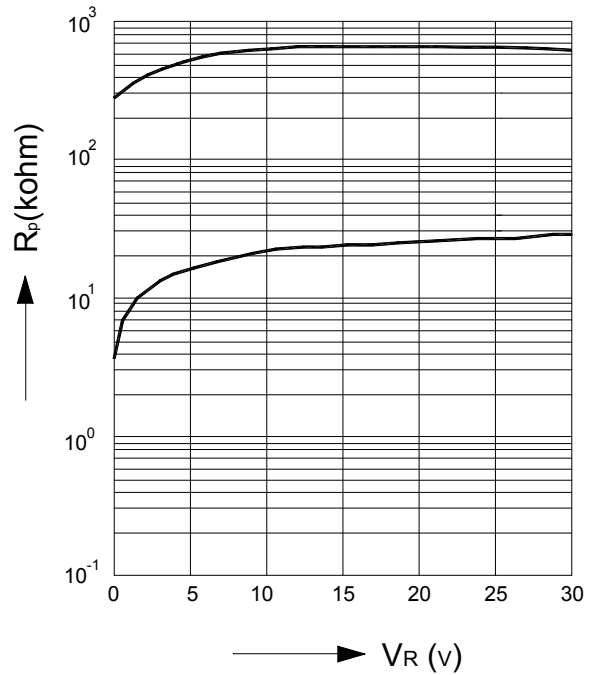
Dated : 30/08/2004

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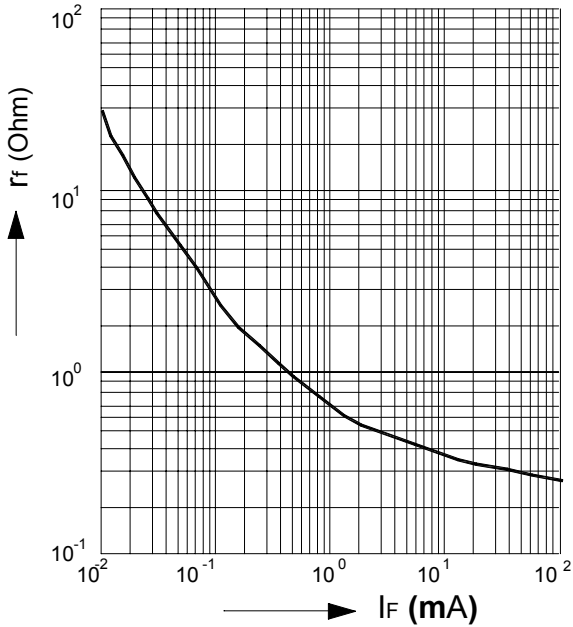
Diode capacitance $C_T=f(V_R)$
f=Parameter



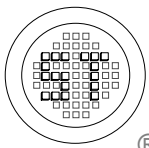
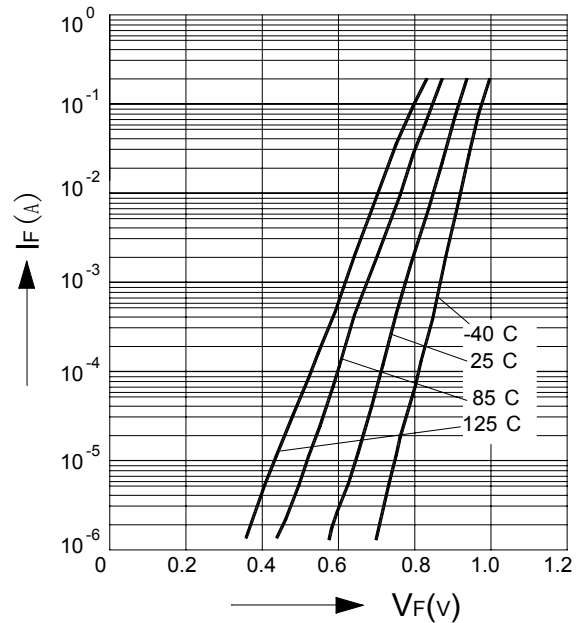
Reverse current $R_P=f(V_R)$
f=Parameter



Forward resistance $r_f=f(I_F)$
f=100MHz



Forward current $I_F=f(V_F)$
 T_A =Parameter



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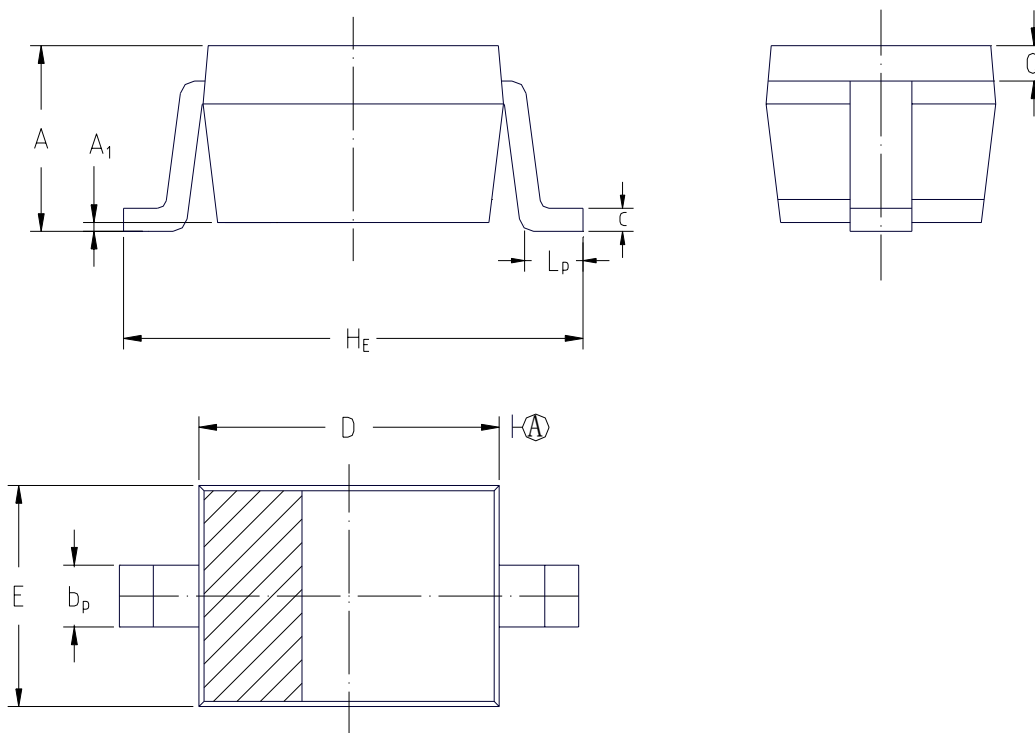
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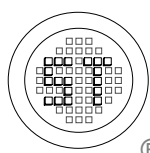
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PACKAGE OUTLINE

SOD-323



UNIT	A	A ₁	b _p	c	D	E	H _E	L _p	Q
mm	1.10 0.80	0.1 0	0.40 0.25	0.15 0.00	1.80 1.60	1.35 1.15	2.80 2.30	0.50 0.10	0.15 REF.



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