

# BA592WS

## SILICON RF SWITCHING DIODE

### Features

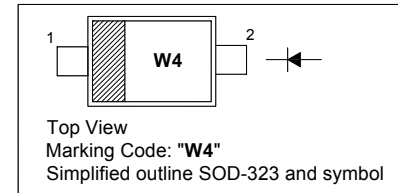
- Very low forward resistance
- Small capacitance

### Applications

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

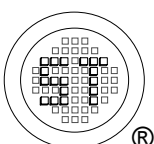


### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	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 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

### Electrical Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Current at $V_R = 20\text{ V}$	$I_R$	-	-	20	nA
Forward Voltage at $I_F = 100\text{ mA}$	$V_F$	-	-	1	V
Diode Capacitance at $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$ at $V_R = 3\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	0.65 0.6	- -	1.4 1.1	pF
Reverse Parallel Resistance at $V_R = 0\text{ V}$ , $f = 100\text{ MHz}$	$R_P$	-	100	-	K $\Omega$
Forward Resistance at $I_F = 3\text{ mA}$ , $f = 100\text{ MHz}$ at $I_F = 10\text{ mA}$ , $f = 100\text{ MHz}$	$r_f$	- -	- -	0.7 0.5	$\Omega$
Series Inductance	$L_s$	-	1.8	-	nH



## SEMTECH ELECTRONICS LTD.

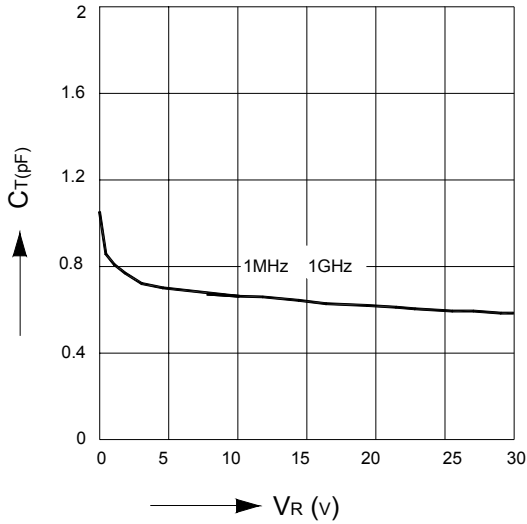
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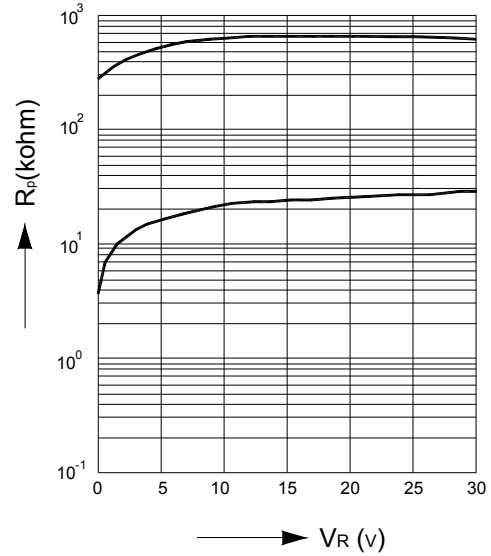
Dated : 01/09/2006

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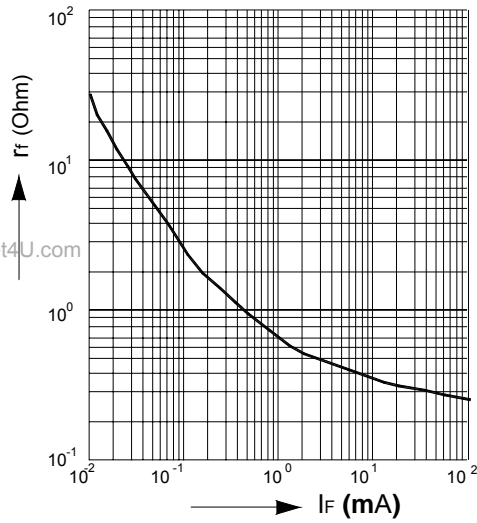
**Diode capacitance  $C_T=f(V_R)$**   
f=Parameter



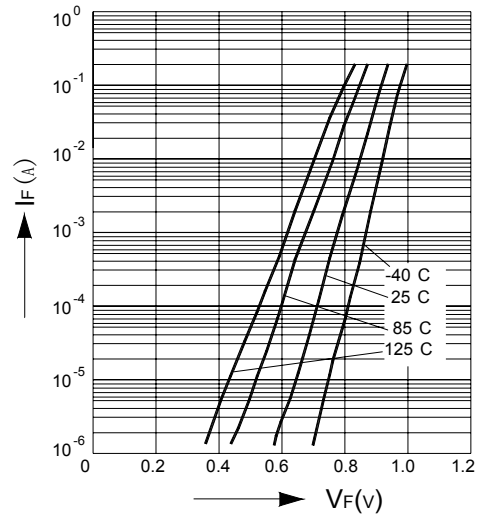
**Reverse current  $R_P=f(V_R)$**   
f=Parameter



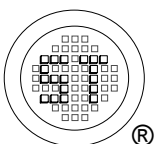
**Forward resistance  $r_f=f(I_F)$**   
f=100MHz



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



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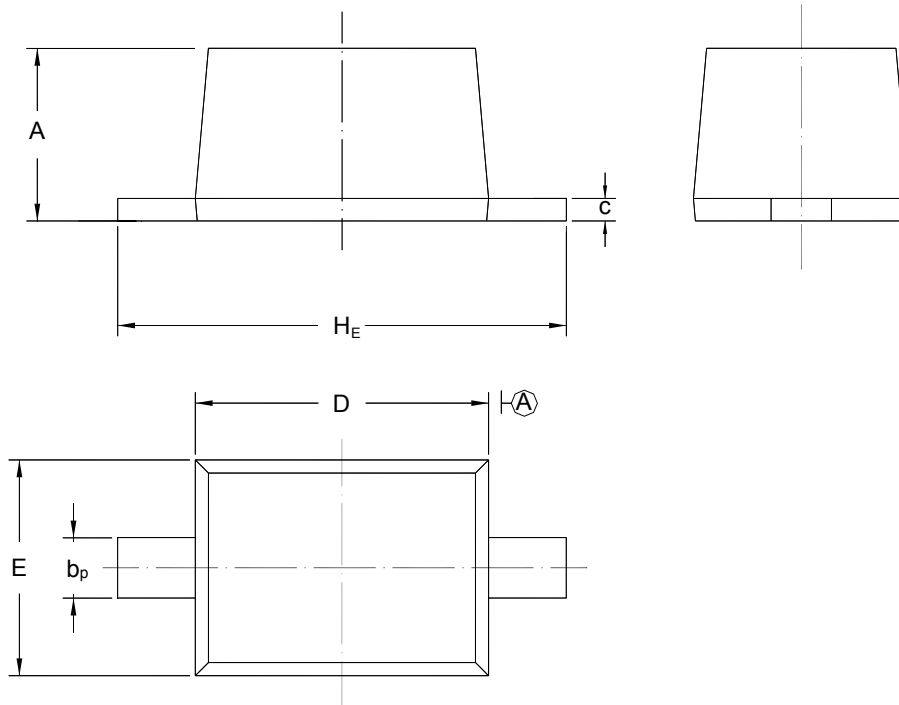
Dated : 01/09/2006

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## PACKAGE OUTLINE

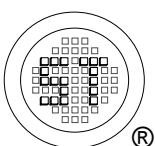
Plastic surface mounted package; 2 leads

SOD-323



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UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>
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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ISO/TS 16949 : 2002 Certificate No. 05103  
 ISO 14001:2004 Certificate No. 7116  
 ISO 9001:2000 Certificate No. 0506098

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