



**FUKUCOM COMPANY LTD.**

**福 靈 有 限 公 司**

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

## BB148WS

### VHF VARIABLE CAPACITANCE DIODE

#### FEATURES

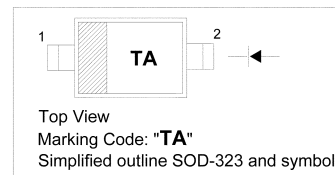
- Excellent linearity
- Excellent matching to 1% DMA
- Very small plastic SMD package
- C28: 2.6 pF; ratio:15
- Low series resistance

#### APPLICATIONS

- Electronic tuning in VHF television tuners.
- VCO

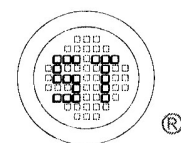
#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



#### Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Continuous reverse voltage	$V_R$	30	V
Continuous forward current	$I_F$	20	mA
Operating junction temperature	$T_j$	-55...+125	°C
Storage temperature	$T_{stg}$	-55 ... +150	°C



**SEMTECH**

Dated : 30/08/2004



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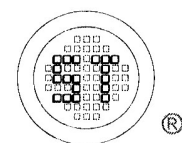
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### Electrical Characteristics (Ta = 25 °C)

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	$C_d$	36.8 2.4	- -	41.8 2.75	pF	$V_R = 1V, f = 1MHz$ $V_R = 28V, f = 1MHz$ (see Fig2 and 4)
Capacitance ratio	$C_{d(1V)} / C_{d(28V)}$	14.5	-	-	-	$f = 1MHz$
Capacitance matching	$\Delta C_d / C_d$	-	-	1	%	$V_R = 0.5$ to $28V$ ; in a sequence of 4 diodes (gliding)
		-	-	2	%	$V_R = 0.5$ to $28V$ ; in a sequence of 20 diodes (gliding)
Diode series resistance <sup>1)</sup>	$r_s$	-	-	0.9	$\Omega$	$f = 100MHz$

<sup>1)</sup>  $V_R$  is the value at which  $C_d = 12$  pF.



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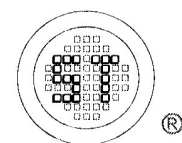
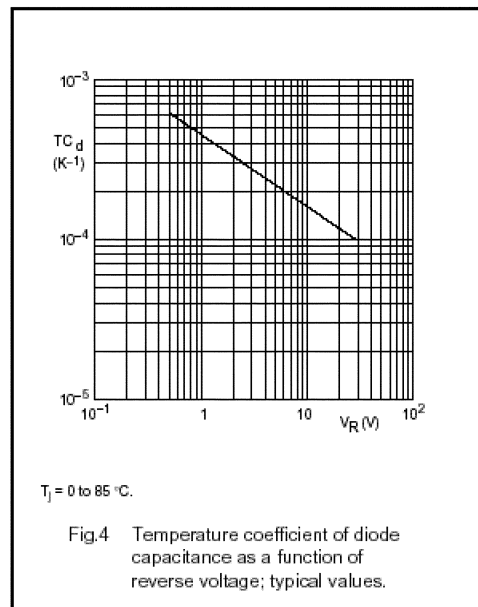
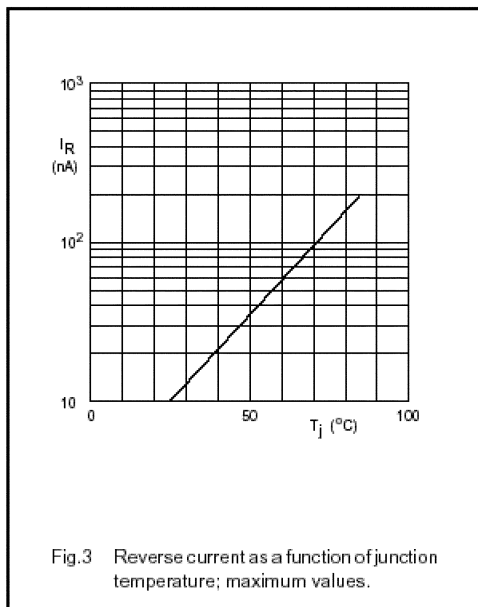
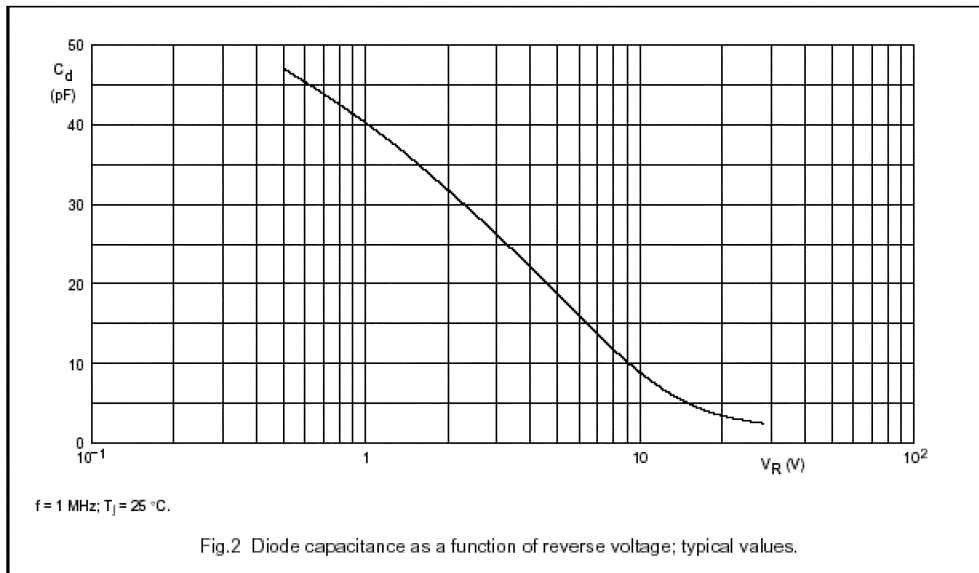
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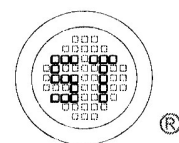
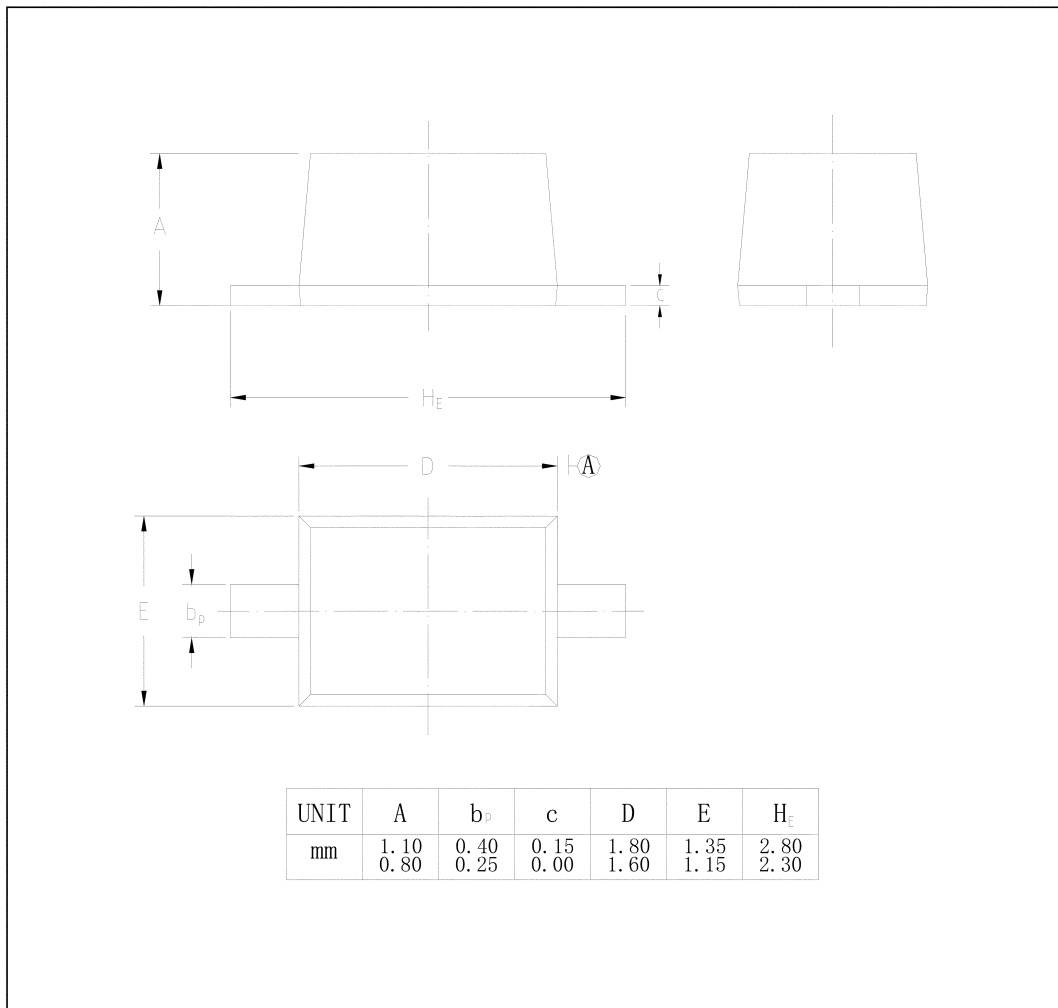
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**PACKAGE OUTLINE**

**SOD-323**



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