



**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

## BB639ST

### SILICON VARIABLE CAPACITANCE DIODE

#### FEATURES

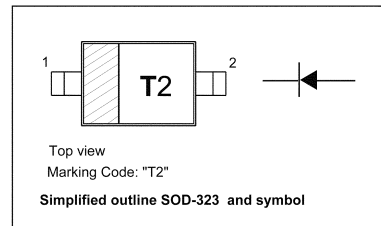
- High capacitance ratio
- Low series resistance
- Low series inductance
- Excellent uniformity and matching due to "in-line" matching assembly procedure

#### APPLICATIONS

- For tuning of extended frequency band in VHF TV/VTR tuners

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

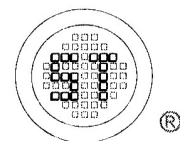


#### DESCRIPTION

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

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

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



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Dated : 30/08/2004



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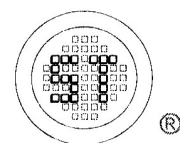
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**Electrical Characteristics (Ta = 25 °C)**

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse current	$I_R$	-	-	10 200	nA	$V_R = 30V$ $V_R = 30V, T_a = 85^\circ C$
Diode capacitance	$C_T$	36 27.7 2.5 2.4	38.3 29.75 2.85 2.6	40 31.8 3.2 2.9	pF	$V_R = 1V, f = 1MHz$ $V_R = 2V, f = 1MHz$ $V_R = 25V, f = 1MHz$ $V_R = 28V, f = 1MHz$
Capacitance ratio	$C_{T2} / C_{T25}$	9.8	10.4	-	-	$V_R = 2V, V_R = 25V, f = 1MHz$
Capacitance ratio	$C_{T1} / C_{T28}$	13.5	14.7	-	-	$V_R = 1V, V_R = 28V, f = 1MHz$
Capacitance matching	$\Delta C_T / C_T$	-	-	2.5	%	$V_R = 1V, V_R = 28V, f = 1MHz,$ 7 diodes sequence
Series resistance	$r_s$	-	0.65	0.7	$\Omega$	$V_R = 5V, f = 470MHz$
Series inductance	$L_s$	-	1.8	-	nH	



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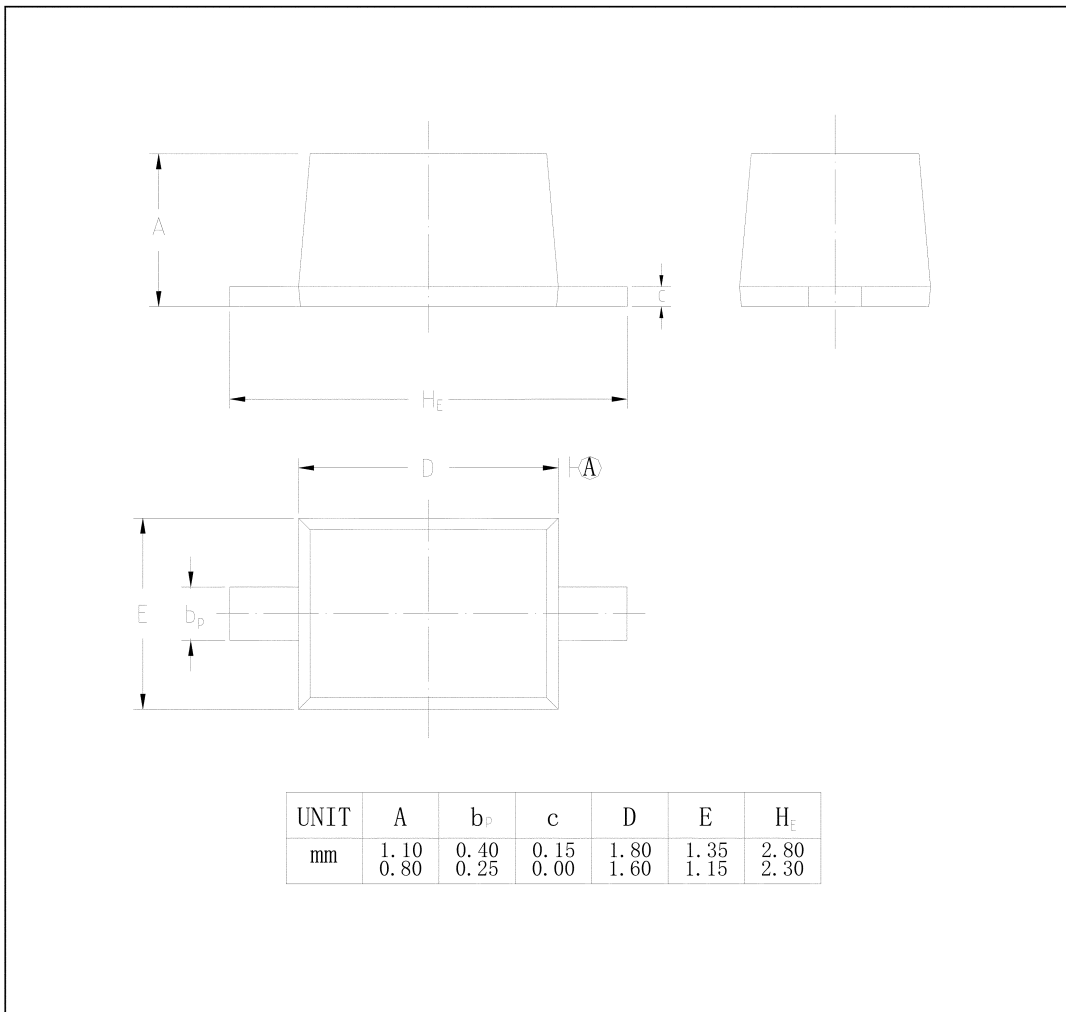
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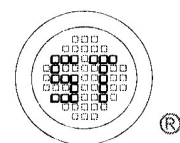
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**PACKAGE OUTLINE**

**SOD-323**



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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