

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

# HN1V02H

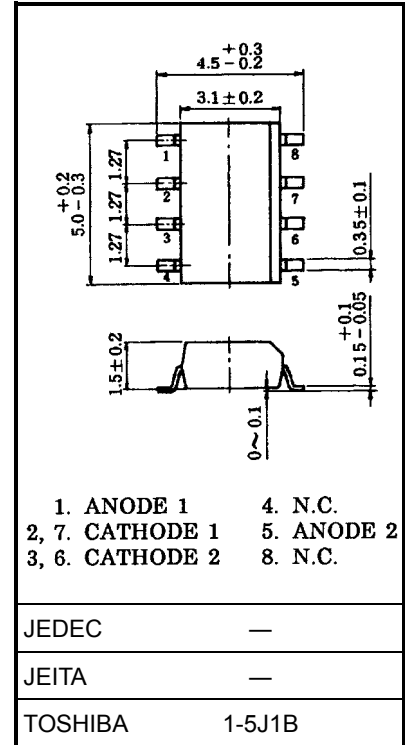
## AM Radio Band Tuning Applications

- High capacitance ratio:  $C1 V/C8 V = 19.5$  (typ.)
- High Q:  $Q = 200$  (min)
- Including two devices in FM8 package (flat pack mini 8 pin)
- Low voltage operation:  $V_R = 1\sim 8 V$

## Maximum Ratings ( $T_a = 25^\circ C$ ) ( $D_1, D_2$ )

Characteristics	Symbol	Rating	Unit
Reverse voltage	$V_R$	16	V
Junction temperature	$T_j$	125	$^\circ C$
Storage temperature range	$T_{stg}$	-55~125	$^\circ C$

Unit: mm



Weight: 0.05 g (typ.)

## Electrical Characteristics ( $T_a = 25^\circ C$ ) ( $D_1, D_2$ )

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	$V_R$	$I_R = 10 \mu A$	16	—	—	V
Reverse current	$I_R$	$V_R = 16 V$	—	—	20	nA
Capacitance	$C1 V$	$V_R = 1 V, f = 1 MHz$	435	—	540	pF
Capacitance	$C3 V$	$V_R = 3 V, f = 1 MHz$	140	—	250	pF
Capacitance	$C5 V$	$V_R = 5 V, f = 1 MHz$	50.0	—	90.0	pF
Capacitance	$C8 V$	$V_R = 8 V, f = 1 MHz$	19.9	—	26.7	pF
Capacitance ratio	$C1 V/C8 V$	—	16.2	19.5	—	—
Figure of merit	Q	$V_R = 1 V, f = 1 MHz$	200	—	—	—

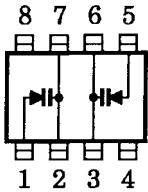
Note 1: Two devices in one package are matched for capacitance to 2.5%.

$$\frac{C(\max) - C(\min)}{C(\min)} \leq 0.025 (V_R = 1\sim 8 V)$$

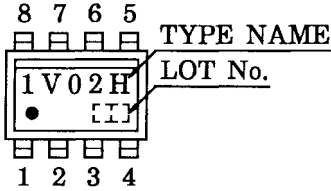
Note 2:  $C8 V$  is divided into two classifications as follows.

Classification	$C8 V$ (pF)
A	19.9~23.7
B	22.4~26.7

**Pin Assignment (top view)**



**Marking**



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