

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

HN1V02H

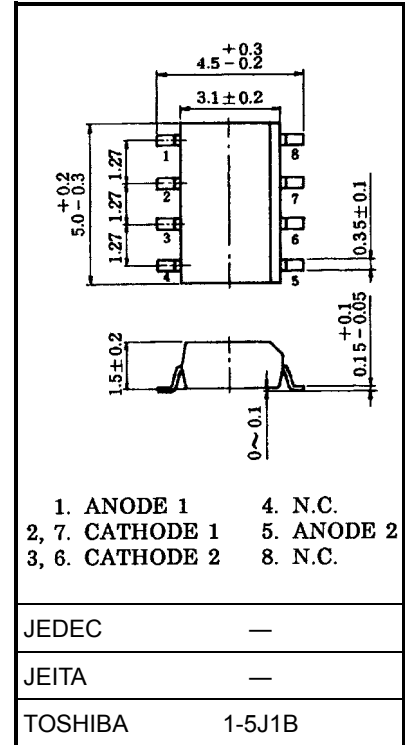
AM Radio Band Tuning Applications

- 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 (Ta = 25°C) (D1, D2)

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

Unit: mm



Weight: 0.05 g (typ.)

Electrical Characteristics (Ta = 25°C) (D1, D2)

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	—	—	—

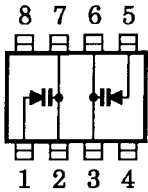
Note 1: Two devices in one package are matched for capacitance to 2.5%.

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

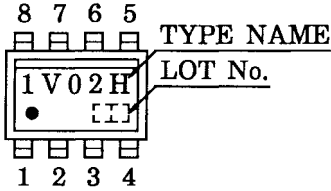
Note 2: C8 V is divided into two classifications as follows.

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

Pin Assignment (top view)



Marking



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