

TOSHIBA TRANSISTOR SILICON EPITAXIAL PLANAR TYPE

# HN2V02H

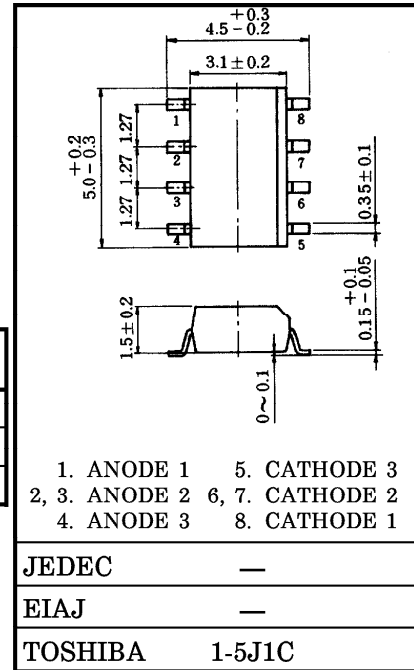
AM RADIO BAND TUNING APPLICATIONS.

Unit in mm

- High Capacitance Ratio :  $C1V / C8V = 19.5$  (Typ.)
- High Q :  $Q = 200$  (Min.)
- Including Three Devices in FM8 Package (Flat Pack Mini 8Pin)
- Low Voltage Operation :  $V_R = 1 \sim 8V$

MAXIMUM RATINGS ( $T_a = 25^\circ C$ ) ( $D_1, D_2, D_3$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	$V_R$	16	V
Junction Temperature	$T_j$	125	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~125	$^\circ C$



ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ ) ( $D_1, D_2, D_3$ )

Weight : 0.05g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	$V_R$	$I_R = 10 \mu A$	16	—	—	V
Reverse Current	$I_R$	$V_R = 16V$	—	—	20	nA
Capacitance	$C1V$	$V_R = 1V, f = 1MHz$	435	—	540	pF
Capacitance	$C3V$	$V_R = 3V, f = 1MHz$	140	—	250	pF
Capacitance	$C5V$	$V_R = 5V, f = 1MHz$	50.0	—	90.0	pF
Capacitance	$C8V$	$V_R = 8V, f = 1MHz$	19.9	—	26.7	pF
Capacitance Ratio	$C1V / C8V$	—	16.2	19.5	—	—
Figure of Merit	$Q$	$V_R = 1V, f = 1MHz$	200	—	—	—

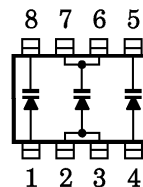
Note 1 : Three Devices in one Package are matched for capacitance to 2.5%.

$$\frac{C(\text{Max.}) - C(\text{Min.})}{C(\text{Min.})} \leq 0.025 \quad (V_R = 1 \sim 8V)$$

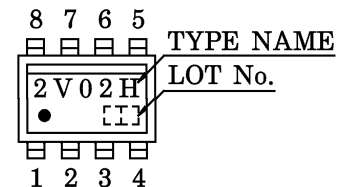
Note 2 : C8V is divided into two classifications as follows.

Classification	C8V (pF)
A	19.9~23.7
B	22.4~26.7

PIN ASSIGNMENT (TOP VIEW)



MARKING



961001EAA2

- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.