

## TOSHIBA TRANSISTOR SILICON EPITAXIAL PLANAR TYPE

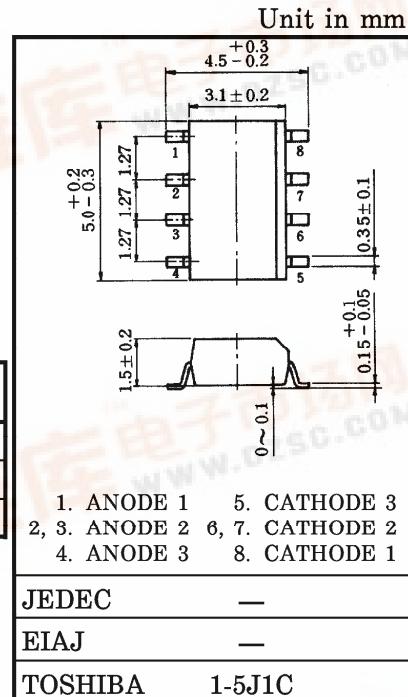
# HN2V02H

## AM RADIO BAND TUNING APPLICATIONS.

- High Capacitance Ratio :  $C_{1V} / C_{8V} = 19.5$  (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 ( $T_a = 25^\circ\text{C}$ ) ( $D_1$ , $D_2$ , $D_3$ )

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



#### ELECTRICAL CHARACTERISTICS (Ta = 25°C) (D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub>)

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  | —    | —    | —    |

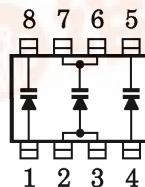
Note 1 : Three Devices in one Package are matched for capacitance to 2.5%.

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

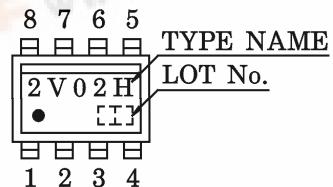
Note 2 : C8V is devided into two classifications as follows

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

## PIN ASSIGNMENT (TOP VIEW)



## MARKING



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