## TOSHIBA TRANSISTOR SILICON EPITAXIAL PLANAR TYPE

## **HN1V01H**

AM RADIO BAND TUNING APPLICATIONS.

High Capacitance Ratio: C1V/C8V=19.5 (Typ.)

High Q : Q = 200 (Min.)

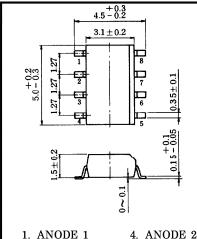
Including Four Devices in FM8 Package (Flat Pack Mini 8Pin)

Low Voltage Operation :  $V_R = 1 \sim 8V$ 

MAXIMUM RATINGS (Ta =  $25^{\circ}$ C) (D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub>, D<sub>4</sub>)

| CHARACTERISTIC            | SYMBOL             | RATING  | UNIT                 |
|---------------------------|--------------------|---------|----------------------|
| Reverse Voltage           | $v_{ m R}$         | 16      | V                    |
| Junction Temperature      | $T_{j}$            | 125     | $^{\circ}\mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T_{stg}}$ | -55~125 | $^{\circ}\mathrm{C}$ |

Unit in mm



1. ANODE 1 4. ANODE 2 2, 7. CATHODE 1, 4 5. ANODE 3

3, 6. CATHODE 2, 3 8. ANODE 4

**JEDEC** EIAJ TOSHIBA 1-5J1D

Weight: 0.05g

ELECTRICAL CHARACTERISTICS (Ta = 25°C) (D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub>, D<sub>4</sub>)

| CHARACTERISTIC  | SYMBOL           | TEST CONDITION          | MIN. | TYP. | MAX.         | UNIT |
|-----------------|------------------|-------------------------|------|------|--------------|------|
| Reverse Voltage | $v_{ m R}$       | $I_R = 10 \mu A$        | 16   | _    | _            | V    |
| Reverse Current | $I_{\mathbf{R}}$ | $V_R = 16V$             | _    |      | 20           | nA   |
| Capacitance     | C1V              | $V_R = 1V$ , $f = 1MHz$ | 435  | _    | 540          | рF   |
| Capacitance     | C3V              | $V_R$ =3V, f=1MHz       | 140  | _    | 250          | рF   |
| Capacitance     | C5V              | $V_R = 5V$ , $f = 1MHz$ | 50.0 | _    | 90.0         | pF   |
| Capacitance     | C8V              | $V_R=8V$ , $f=1MHz$     | 19.9 | _    | 26.7         | рF   |
| Capacitance     | C1V/C8V          | _                       | 16.2 | 19.5 | <del>-</del> | _    |
| Figure of Merit | Q                | $V_R = 1V$ , $f = 1MHz$ | 200  |      | _            | _    |

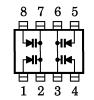
Note 1: Four Devices in one Package are matched for capacitance to 2.5%.

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

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

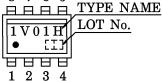
| Classification | C8V (pF)  |
|----------------|-----------|
| Α              | 19.9~23.7 |
| В              | 22.4~26.7 |

PIN ASSIGNMENT (TOP VIEW)





**MARKING** 



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