

TOSHIBA Diode Silicon Epitaxial Planar Type

# JDV2S14E

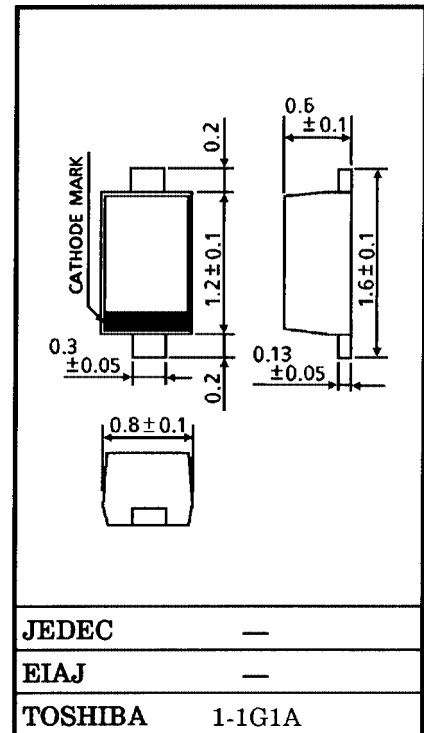
Useful for VCO/TCXO

- Small Package
- High Capacitance Ratio:  $C_{1V}/C_{2.5V} = 2.15$  (typ.)
- Low Series Resistance :  $r_s = 0.4 \Omega$  (typ.)

## Maximum Ratings (Ta = 25°C)

| Characteristics           | Symbol    | Rating  | Unit |
|---------------------------|-----------|---------|------|
| Reverse voltage           | $V_R$     | 10      | V    |
| Junction temperature      | $T_j$     | 125     | °C   |
| Storage temperature range | $T_{stg}$ | -55~125 | °C   |

Unit in mm



Weight: 0.0014 g

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Electrical Characteristics (Ta = 25°C)

| Characteristics   | Symbol                          | Test Condition                           | Min  | Typ. | Max  | Unit     |
|-------------------|---------------------------------|--|------|------|------|----------|
| Reverse voltage   | $V_R$                           | $I_R = 1\ \mu\text{A}$                   | 10   | —    | —    | V        |
| Reverse current   | $I_R$                           | $V_R = 10\ \text{V}$                     | —    | —    | 3    | nA       |
| Capacitance       | $C_{0.5\text{V}}$               | $V_R = 0.5\ \text{V}, f = 1\ \text{MHz}$ | 56.3 | —    | 64.7 | pF       |
|                   | $C_{1\text{V}}$                 | $V_R = 1\ \text{V}, f = 1\ \text{MHz}$   | 44   | —    | 49.5 |          |
|                   | $C_{2.5\text{V}}$               | $V_R = 2.5\ \text{V}, f = 1\ \text{MHz}$ | 19   | —    | 26.5 |          |
|                   | $C_{4\text{V}}$                 | $V_R = 4\ \text{V}, f = 1\ \text{MHz}$   | 9.2  | —    | 12   |          |
| Capacitance ratio | $C_{0.5\text{V}}/C_{1\text{V}}$ | —  | 1.25 | —    | 1.35 | —        |
|                   | $C_{1\text{V}}/C_{2.5\text{V}}$ | —  | 1.99 | 2.15 | 2.3  |          |
| Series resistance | $r_s$                           | $V_R = 4\ \text{V}, f = 100\ \text{MHz}$ | —    | 0.4  | 0.8  | $\Omega$ |

Note: Signal level when capacitance is measured.  $V_{\text{sig}} = 500\ \text{mV}_{\text{rms}}$

Marking



