

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

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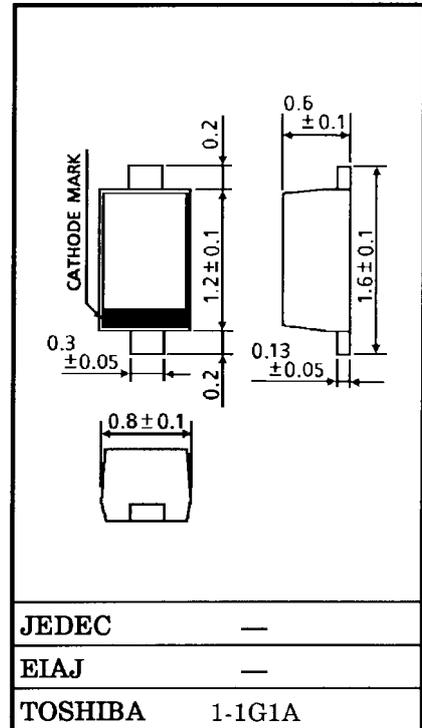
Useful for VCO/TCXO

- Small Package
- High Capacitance Ratio:  $C_{1V}/C_{4V} = 3.75$  (typ.)
- Low Series Resistance :  $r_s = 0.45 \Omega$  (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



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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       | $C_{1V}$        | $V_R = 1 \text{ V}, f = 1 \text{ MHz}$   | 17   | 18   | 19   | pF       |
|                   | $C_{4V}$        | $V_R = 4 \text{ V}, f = 1 \text{ MHz}$   | 4.25 | 4.8  | 5.43 |          |
| Capacitance ratio | $C_{1V}/C_{4V}$ | —  | 3.5  | 3.75 | —    | —        |
| Series resistance | $r_s$           | $V_R = 1 \text{ V}, f = 470 \text{ MHz}$ | —    | 0.45 | 0.7  | $\Omega$ |

## Marking



