TOSHIBA Diode Silicon Epitaxial Planar Type

JDV2S02FS

VCO for the UHF band

High capacitance ratio: C_{1V}/C_{4V} = 2.0 (typ.)

• Low series resistance: $r_S = 0.6 \Omega$ (typ.)

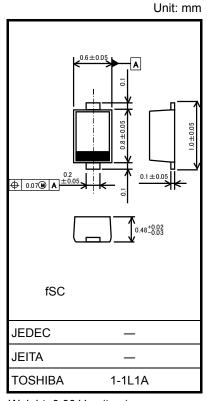
• This device is suitable for use in a small-size tuner.

Absolute Maximum Ratings (Ta = 25°C)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|------------------|---------|------|
| Reverse voltage | V_{R} | 10 | ٧ |
| Junction temperature | Tj | 150 | °C |
| Storage temperature range | T _{stg} | -55~150 | °C |

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).



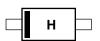
Weight: 0.0011 g (typ.)

Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Condition | Min | Тур. | Max | Unit |
|-------------------|----------------------------------|-----------------------------------|------|------|------|------|
| Reverse voltage | V_{R} | $I_R = 1 \mu A$ | 10 | _ | _ | V |
| Reverse current | I _R | V _R = 10 V | _ | _ | 3 | nA |
| Capacitance | C _{1V} | V _R = 1 V, f = 1 MHz | 1.8 | _ | 2.3 | pF |
| | C _{4V} | V _R = 4 V, f = 1 MHz | 0.83 | _ | 1.23 | |
| Capacitance ratio | C _{1V} /C _{4V} | _ | 1.8 | _ | 2.2 | _ |
| Series resistance | r _S | V _R = 1 V, f = 470 MHz | _ | 0.6 | 0.8 | Ω |

Note: Signal level when capacitance is measured: $V_{sig} = 100 \text{ mVrms}$

Marking



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20070701-EN GENERAL

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