TOSHIBA Diode Silicon Epitaxial Planar Type

# JDV3C34

○ Electronic Tuning Applications for FM Receivers

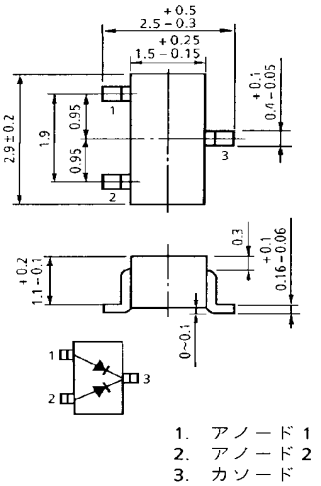
- High capacitance ratio: $C_{2V}/C_{6V}$ = 2.6 (typ.)
- Low series resistance: $r_s$ = 0.3 Ω (typ.)
- Two diodes in a single package

## Absolute Maximum Ratings (Ta = 25°C)

| Characteristic | Symbol | Rating | Unit |
|---|---|---|---|
| Reverse voltage | $V_R$ | 12 | V |
| Junction temperature | $T_j$ | 150 | °C |
| Storage temperature range | $T_{stg}$ | −55~125 | °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).

Unit: mm




1. Anode 1
2. Anode 2
3. Cathode

S-Mini

| | |
|---|---|
| JEDEC | — |
| JEITA | SC-59 |
| TOSHIBA | 1-3G1F |

Weight: 0.013 g (typ.)

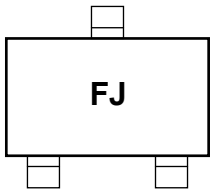
## Electrical Characteristics (Ta = 25°C)

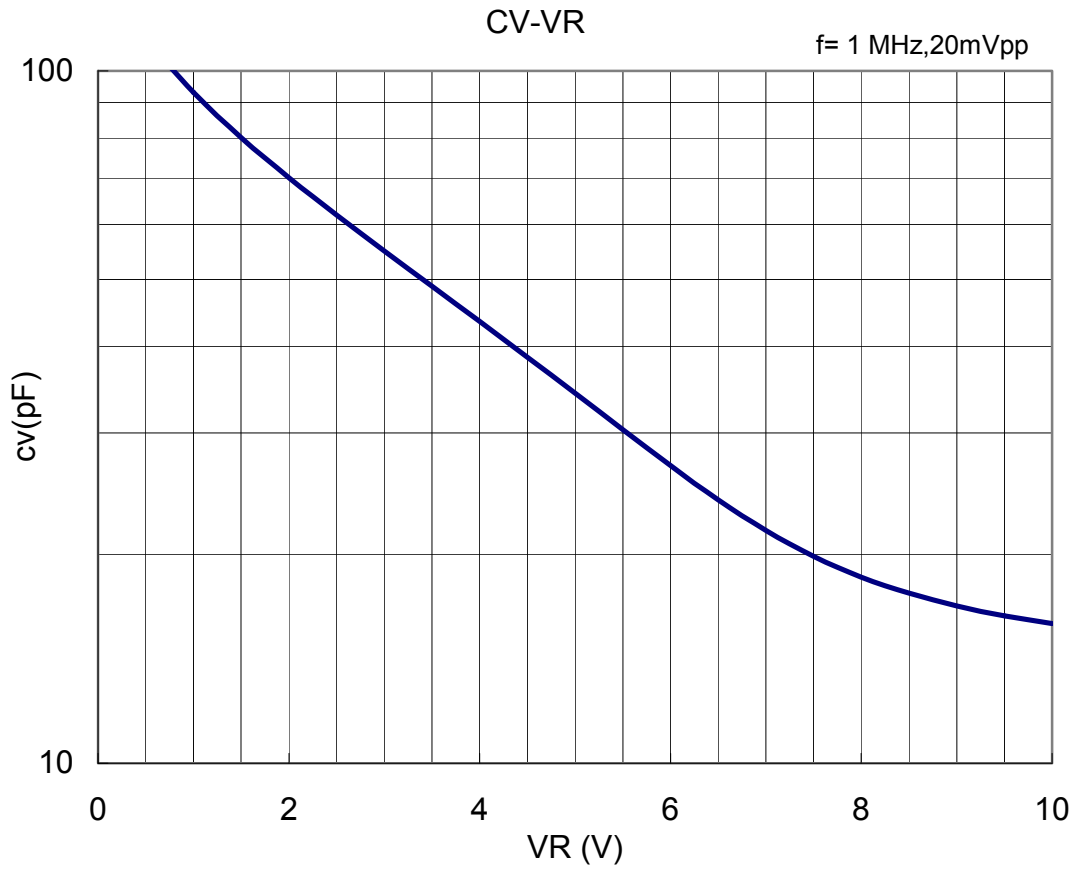
| Characteristic | Symbol | Test Condition | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse voltage | $V_R$ | $I_R$ = 10 μA | 12 | — | — | V |
| Reverse current | $I_R$ | $V_R$ = 10 V | — | — | 10 | nA |
| Capacitance | $C_{2V}$ | $V_R$ = 2 V, f = 1 MHz | 67.9 | 70.0 | 72.1 | pF |
| | $C_{6V}$ | $V_R$ = 6 V, f = 1 MHz | 26.1 | 27.0 | 27.8 | |
| Capacitance ratio | $C_{2V}/C_{6V}$ | — | — | 2.6 | — | — |
| Series resistance | $r_s$ | $V_R$ = 2 V, f = 100 MHz | — | — | 0.3 | Ω |

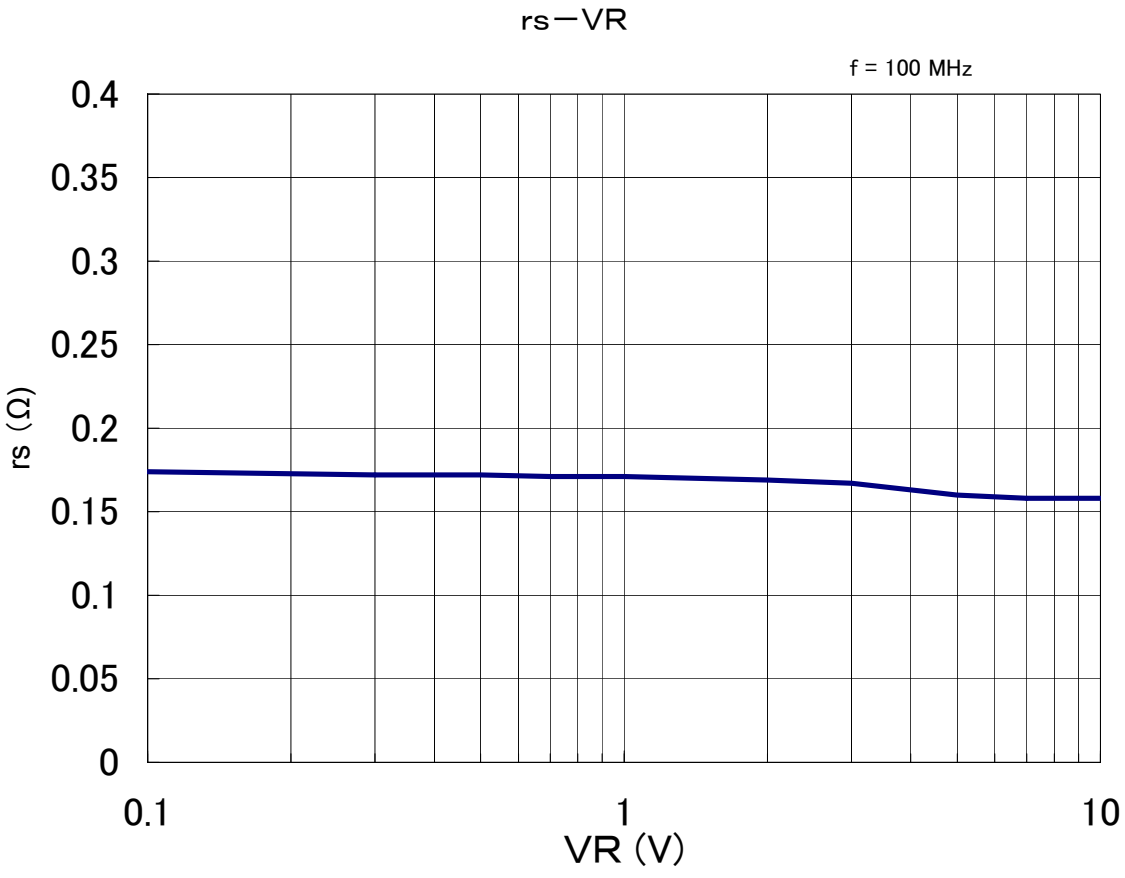
Note 1: Signal level when capacitance is measured: $V_{sig}$ = 20 mVrms

Note 2: Electrical characteristics shown in the above are between anode 1 and the cathode and between anode 2 and the cathode.

## Marking




CV-VR
f= 1 MHz,20mVpp
100
10
cv(pF)
0
2
4
6
8
10
VR (V)


rs－VR
f = 100 MHz
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
rs (Ω)
0.1
1
10
VR (V)

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20070701-EN GENERAL

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