

UHF band VCO

Description

The 1T367 is a variable capacitance diode housed in super miniature package, designed for UHF band VCO.

Features

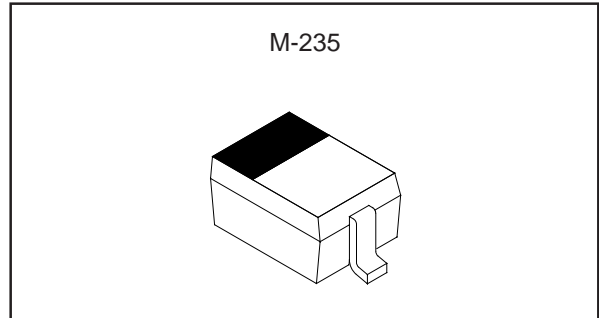
- Super miniature package
- Small series resistance
rs=0.3 Ω (Typ.)

Applications

- UHF band VCO
- Local oscillator for telephone
- Local oscillator for cellular systems

Structure

Silicon epitaxial planar type diode

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

- | | | | |
|-------------------------|-----------|-------------|----|
| • Reverse voltage | V_R | 15 | V |
| • Operating temperature | T_{opr} | -35 to +85 | °C |
| • Storage temperature | T_{stg} | -65 to +150 | °C |

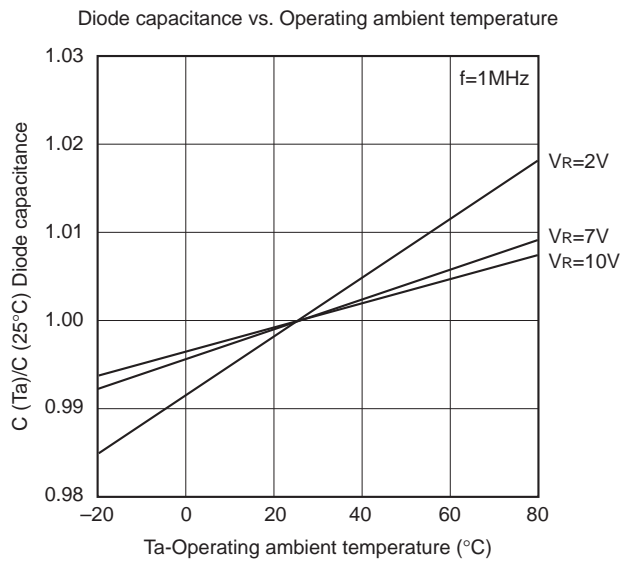
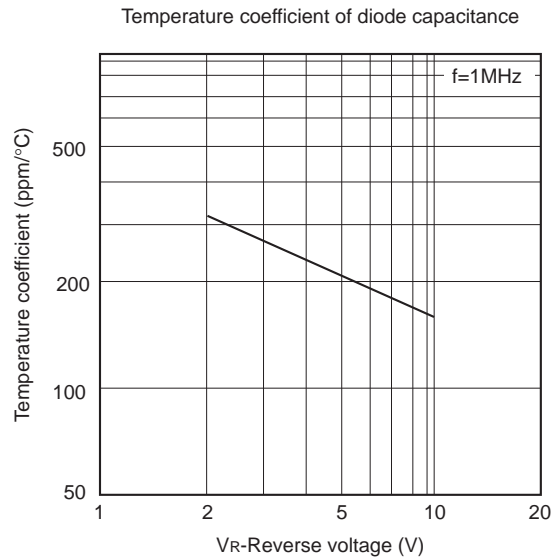
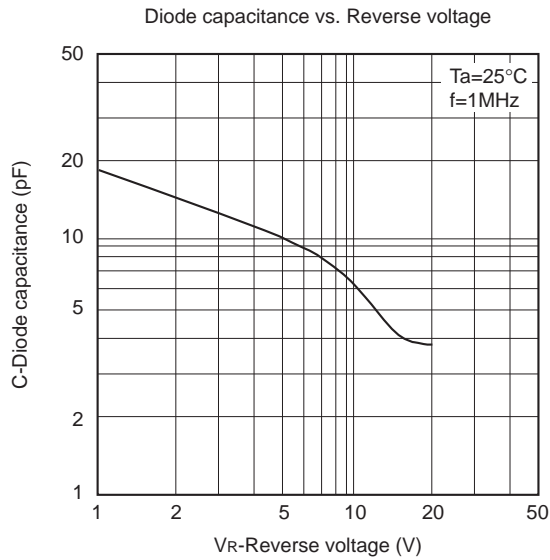
Electrical Characteristics

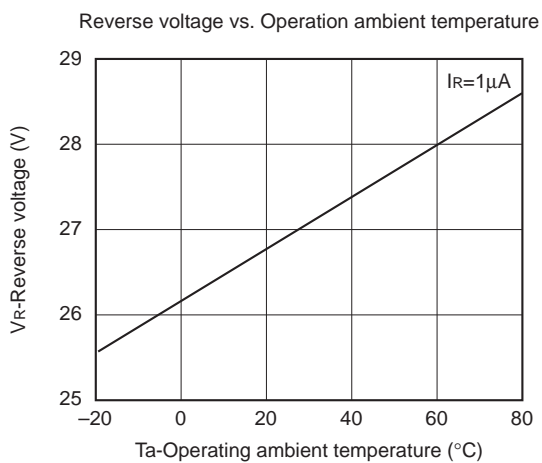
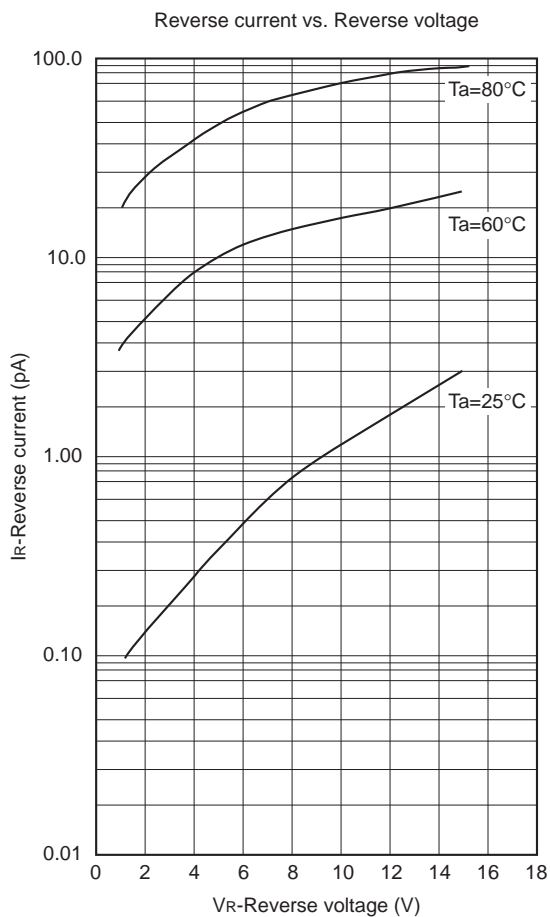
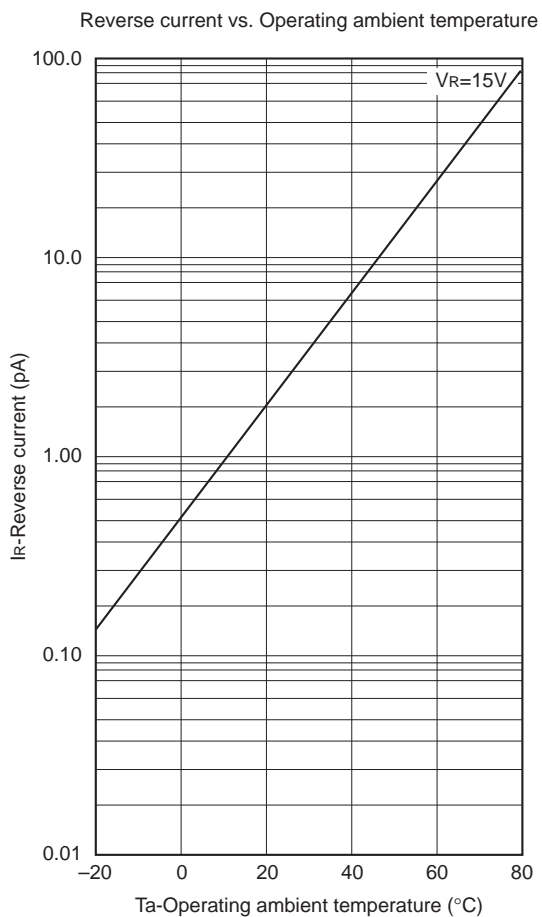
(Ta=25 °C)

| Item | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-------------------|--------------|------------------------------------|------|------|------|----------|
| Reverse current | I_R | $V_R=15\text{ V}$ | | | 3 | nA |
| Diode capacitance | C_2 | $V_R=2\text{ V}, f=1\text{ MHz}$ | 14.3 | 15.0 | 16.0 | pF |
| | C_{10} | $V_R=10\text{ V}, f=1\text{ MHz}$ | 5.5 | 6.0 | 6.5 | pF |
| Capacitance ratio | C_2/C_{10} | | 2.2 | 2.5 | | |
| Series resistance | rs | $V_R=5\text{ V}, f=470\text{ MHz}$ | | 0.3 | 0.4 | Ω |

Sony reserves the right to change products and specifications without prior notice. This information does not convey any license by any implication or otherwise under any patents or other right. Application circuits shown, if any, are typical examples illustrating the operation of the devices. Sony cannot assume responsibility for any problems arising out of the use of these circuits.

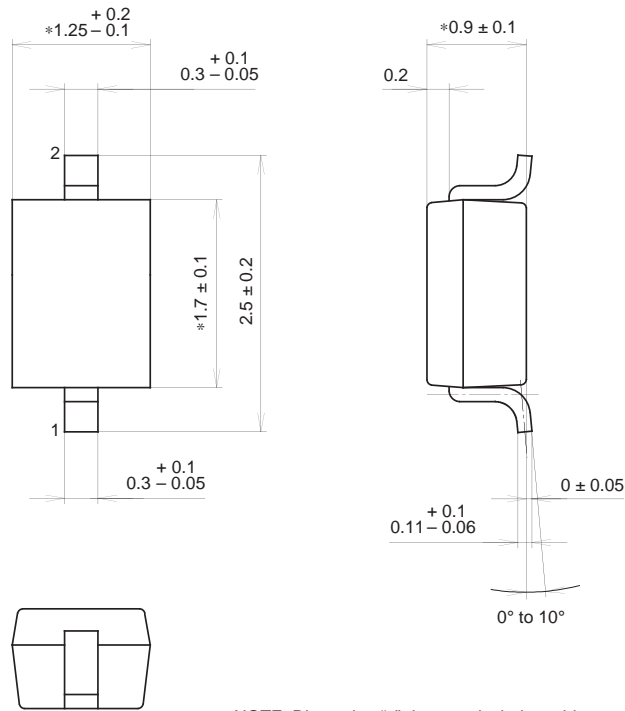
Example of Representative Characteristics





Package Outline Unit : mm

M-235

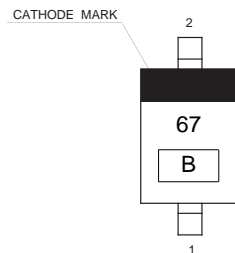


NOTE: Dimension "*" does not include mold protrusion.

| | |
|------------|-------|
| SONY CODE | M-235 |
| EIAJ CODE | — |
| JEDEC CODE | — |

| | |
|----------------|------|
| PACKAGE WEIGHT | 0.1g |
|----------------|------|

Marking



Notes

- 1) B: Lot No. (Year and Month of manufacture)
 Year; Last one digit
 Month; A, B, C (for Oct. to Dec.)
 1 to 9 (for Jan. to Sept.)