

SONY

1T367

UHF band VCO

Description

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

Features

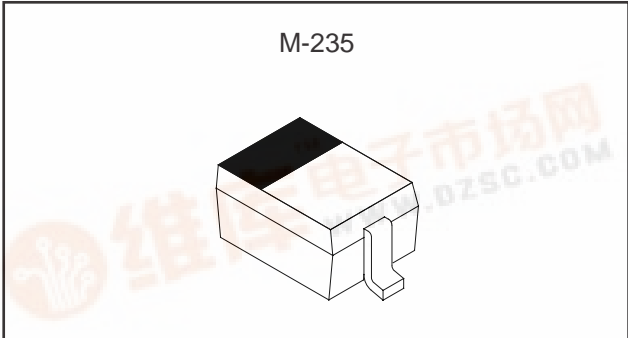
- Super miniature package
- Small series resistance
rs=0.3 Ω (Typ.)

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 VR 15 V
- Operating temperature Topr -35 to +85 °C
- Storage temperature Tstg -65 to +150 °C

Electrical Characteristics

(Ta=25 °C)

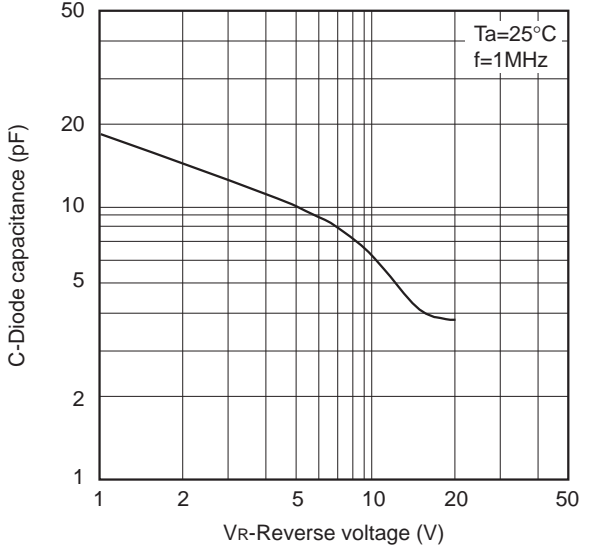
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse current	IR	VR=15 V			3	nA
Diode capacitance	C2	VR=2 V, f=1 MHz	14.3	15.0	16.0	pF
	C10	VR=10 V, f=1 MHz	5.5	6.0	6.5	pF
Capacitance ratio	C2/C10		2.2	2.5		
Series resistance	rs	VR=5 V, f=470 MHz		0.3	0.4	Ω

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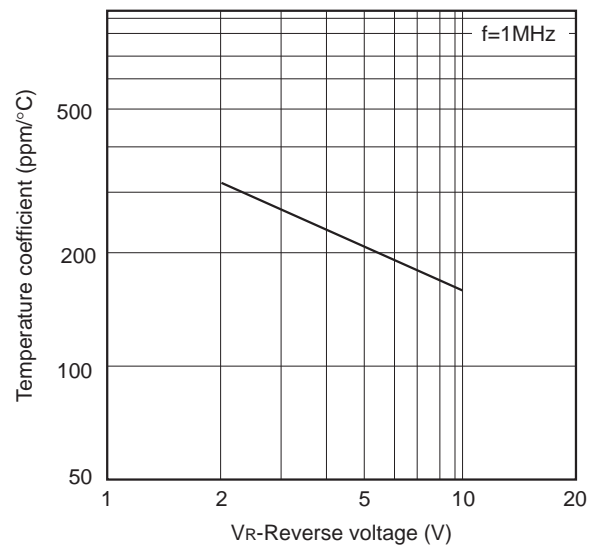


Example of Representative Characteristics

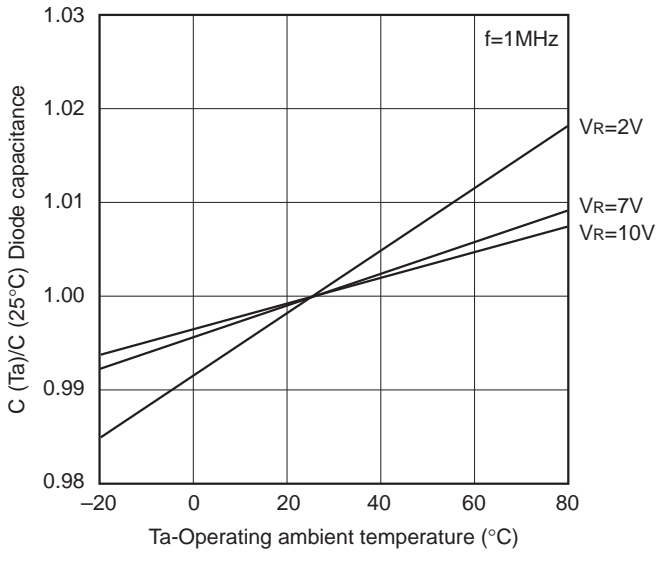
Diode capacitance vs. Reverse voltage



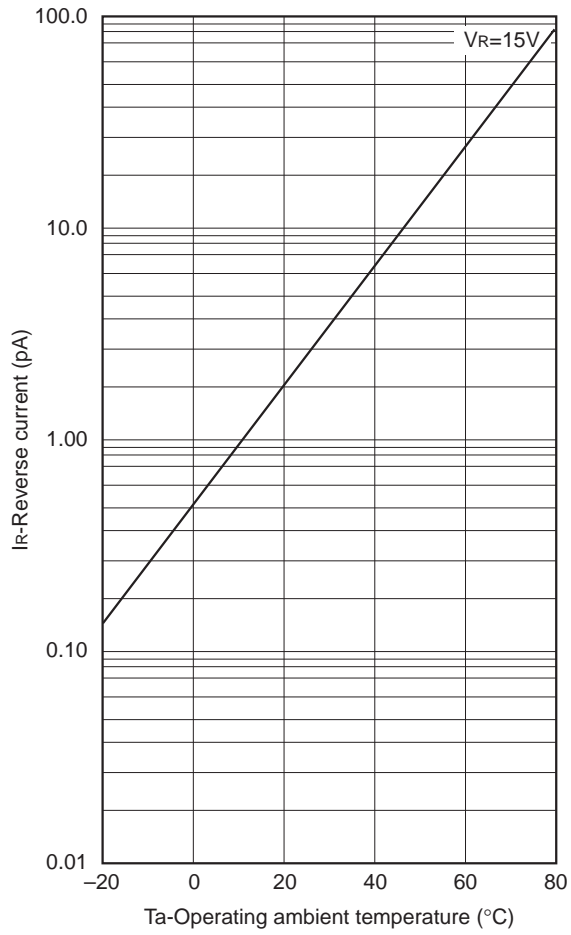
Temperature coefficient of diode capacitance



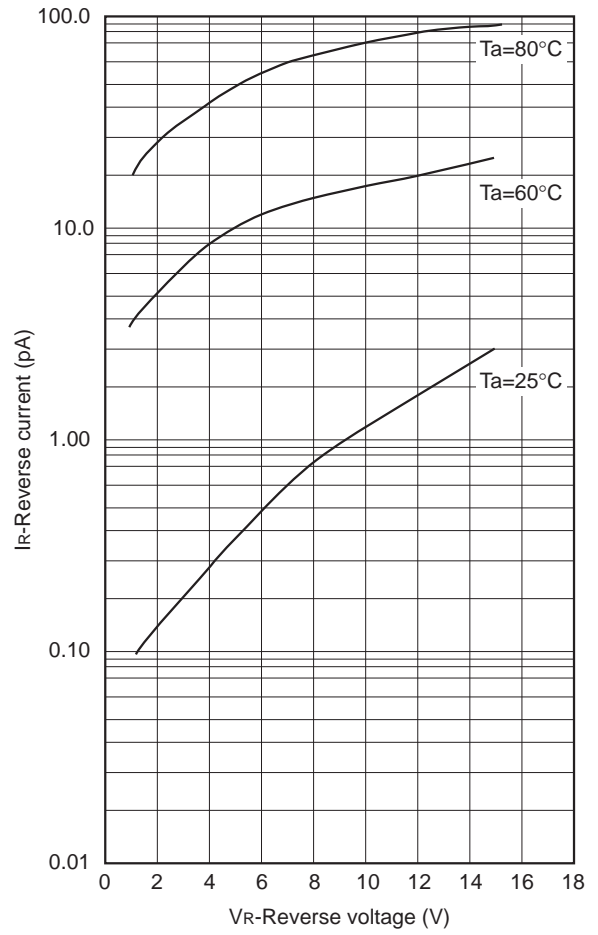
Diode capacitance vs. Operating ambient temperature



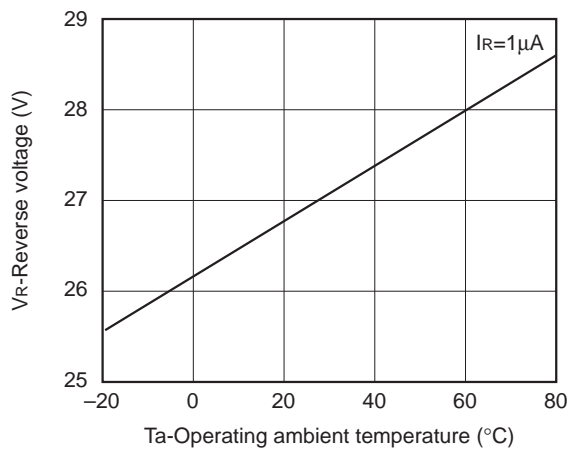
Reverse current vs. Operating ambient temperature



Reverse current vs. Reverse voltage

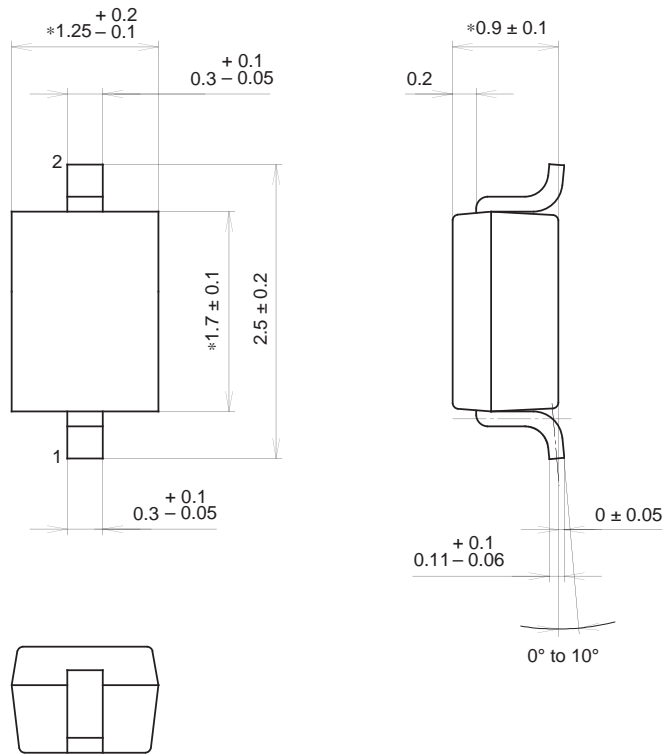


Reverse voltage vs. Operation ambient temperature



Package Outline Unit : mm

M-235

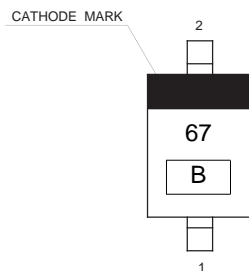


NOTE: Dimension "*" does not include mold protrusion.

SONY CODE	M-235
EIAJ CODE	—
JEDEC CODE	—

PACKAGE WEIGHT	0.1g
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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.)