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.)

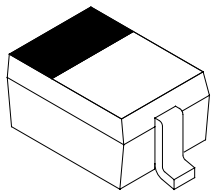
Applications

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

Structure

Silicon epitaxial planar type diode

M-235



Absolute Maximum Ratings (Ta=25 °C)

• Reverse voltage	V_R	15	V
• Operating temperature	Topr	–35 to +85	°C
• Storage temperature	Tstg	–65 to +150	°C

Electrical Characteristics (Ta=25 °C)

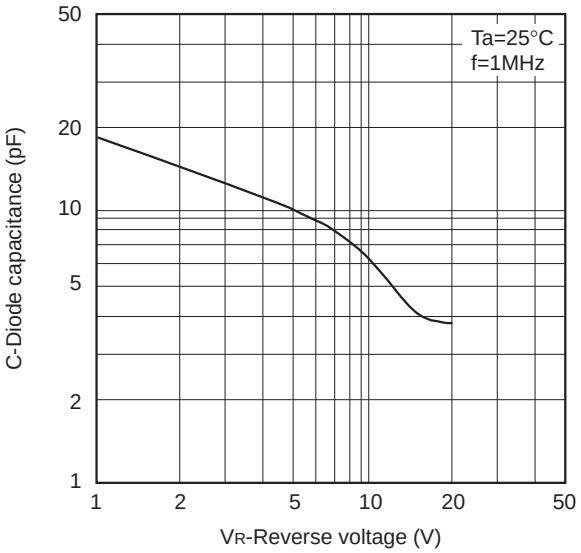
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse current	I_R	V_R=15 V			3	nA
Diode capacitance	C_2	V_R=2 V, f=1 MHz	14.3	15.0	16.0	pF
	C_{10}	V_R=10 V, f=1 MHz	5.5	6.0	6.5	pF
Capacitance ratio	C_2/C_{10}		2.2	2.5		
Series resistance	rs	V_R=5 V, f=470 MHz		0.3	0.4	Ω

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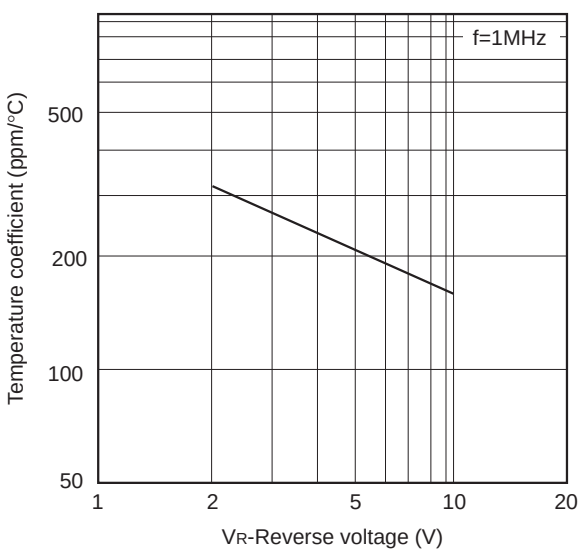
E92253A82-TE

Example of Representative Characteristics

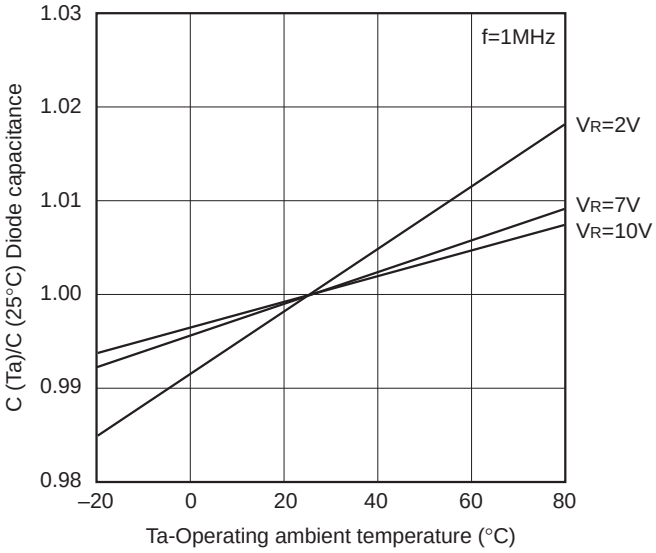
Diode capacitance vs. Reverse voltage



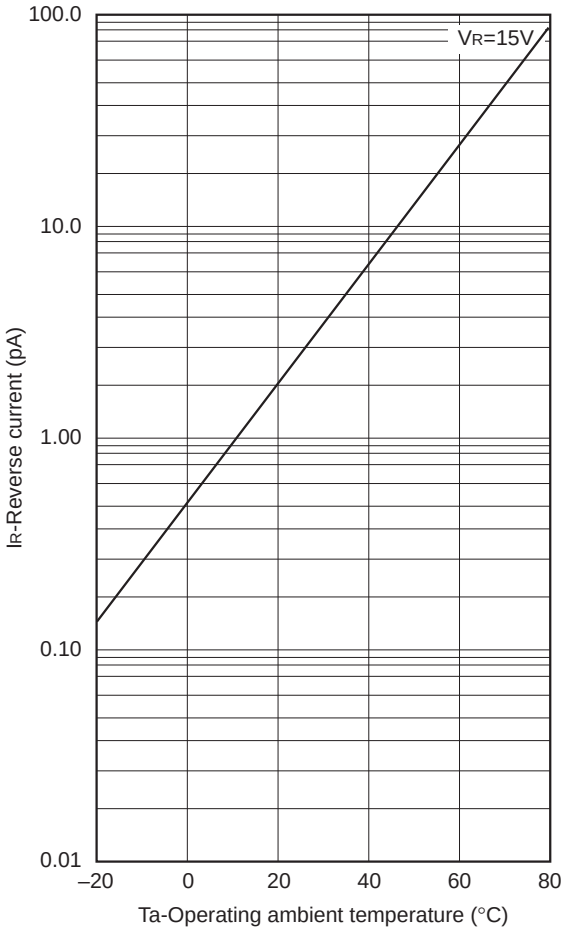
Temperature coefficient of diode capacitance



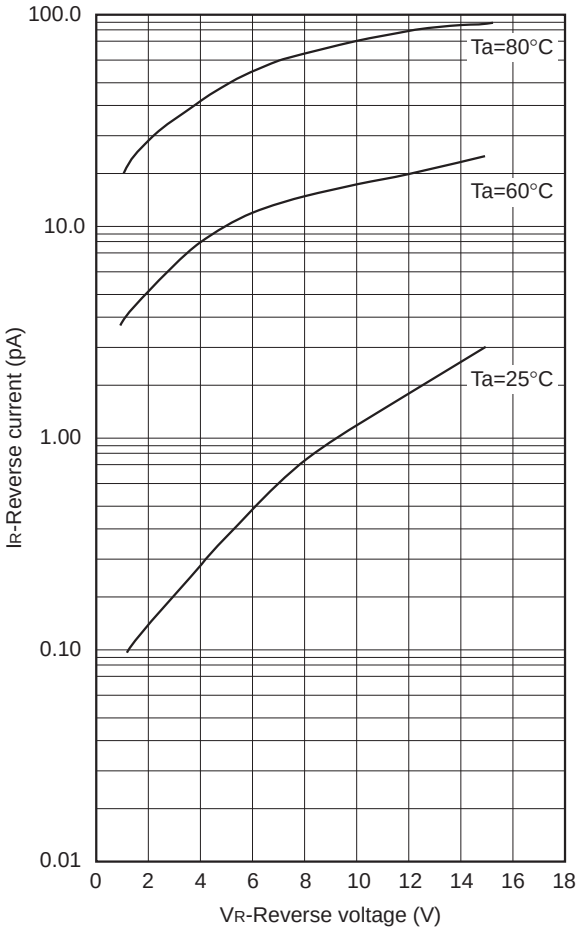
Diode capacitance vs. Operating ambient temperature



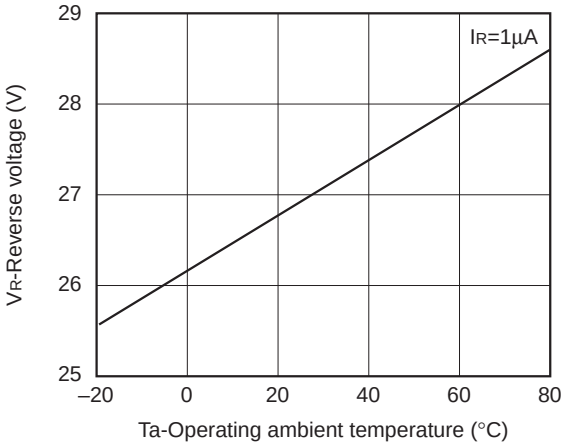
Reverse current vs. Operating ambient temperature



Reverse current vs. Reverse voltage

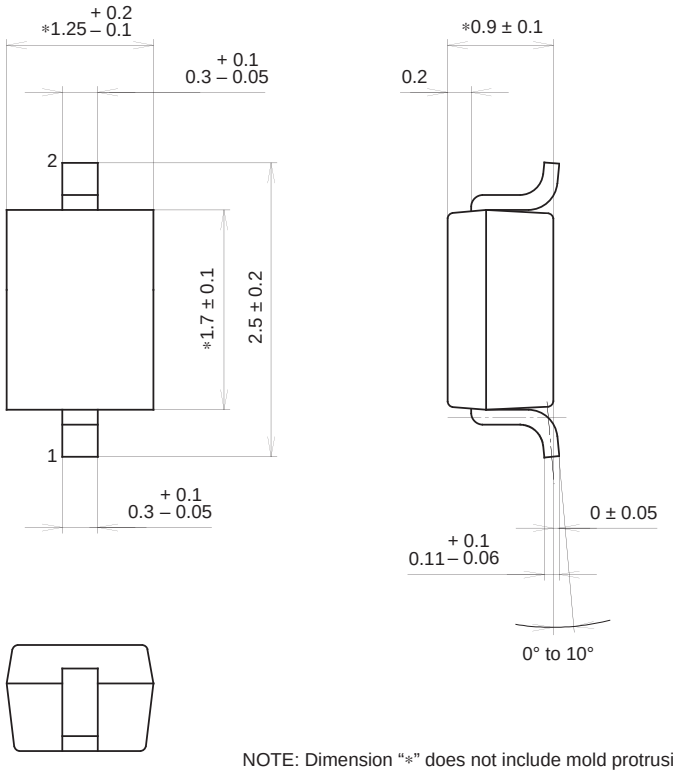


Reverse voltage vs. Operation ambient temperature



Package Outline Unit : mm

M-235

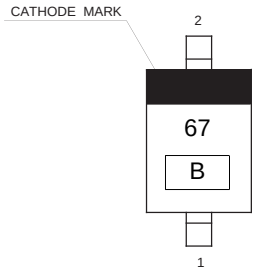


NOTE: Dimension "∗" does not include mold protrusion.

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

PACKAGE WEIGHT	0.1g

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.)