

UHF band VCO

Description

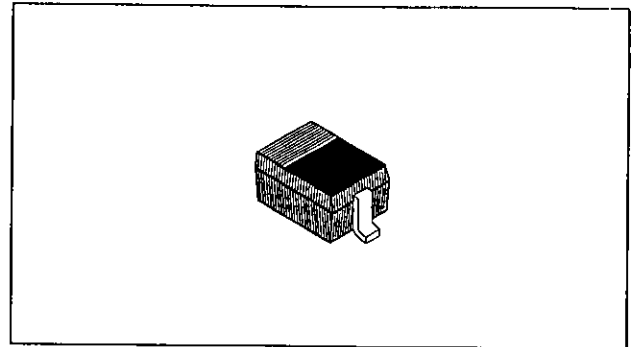
The 1T367 is a variable capacitance diode housed in super miniature package, designed for UHF band VCO.

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



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

Structure

Silicon epitaxial planar type diode

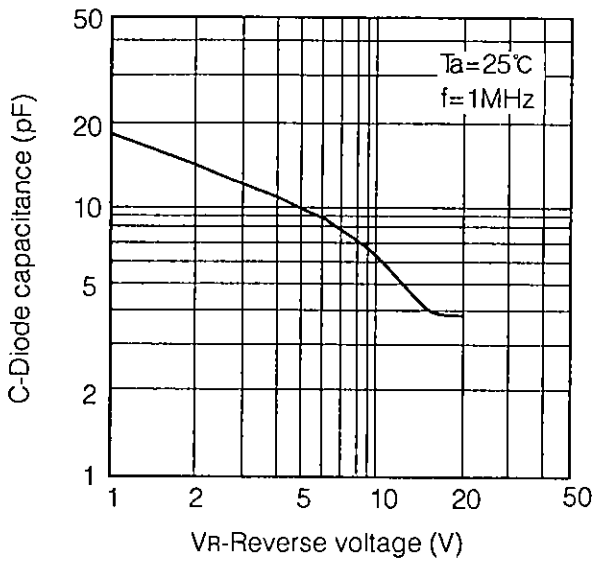
Electrical Characteristics (Ta=25°C)

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

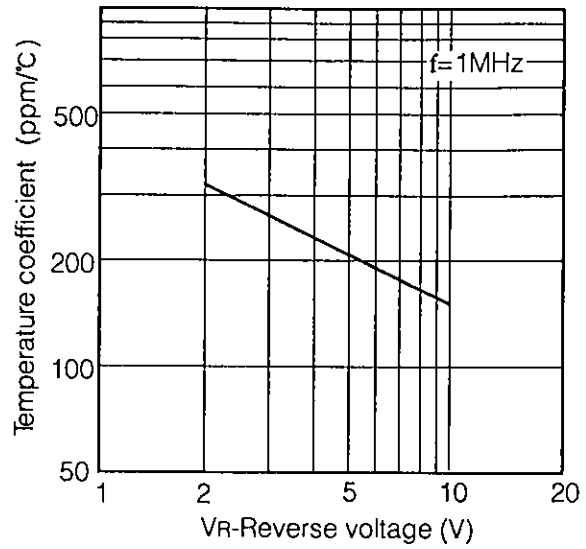
Sony reserves the right to change products and specifications without prior notice. This information does not convey any license by any implication or otherwise under any patents or other right. Application circuits shown, if any, are typical examples illustrating the operation of the devices. Sony cannot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

Example of Representative Characteristics

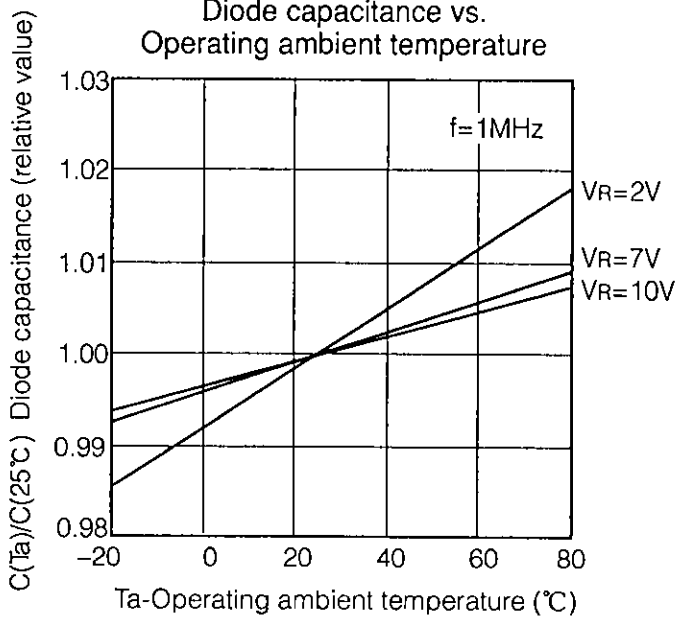
Diode capacitance vs. Reverse voltage



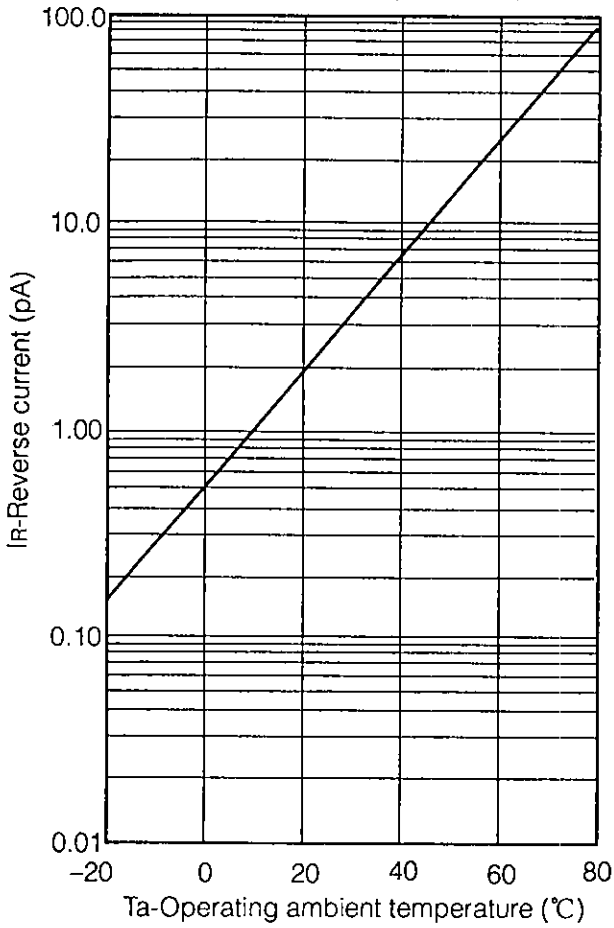
Temperature coefficient of diode capacitance



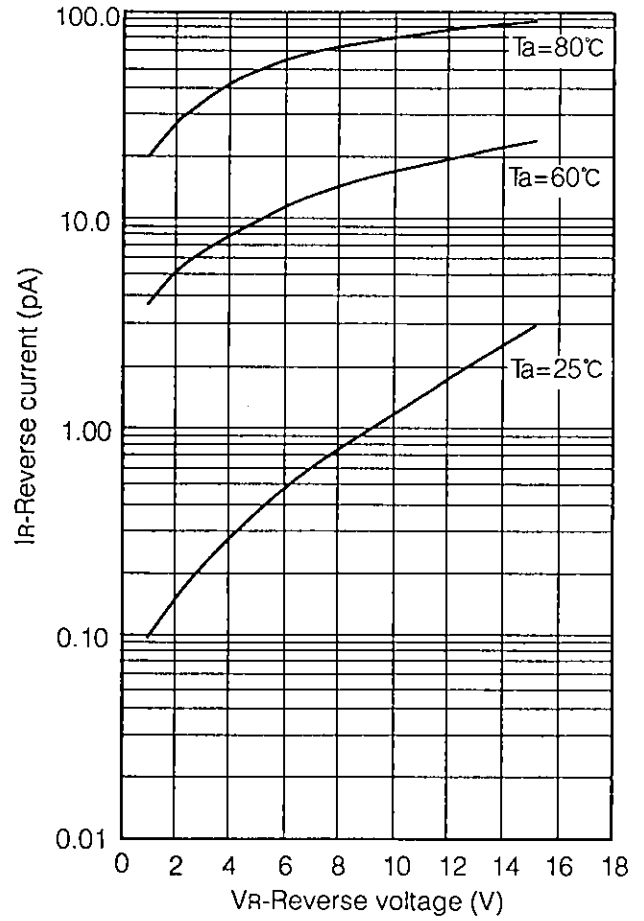
Diode capacitance vs. Operating ambient temperature



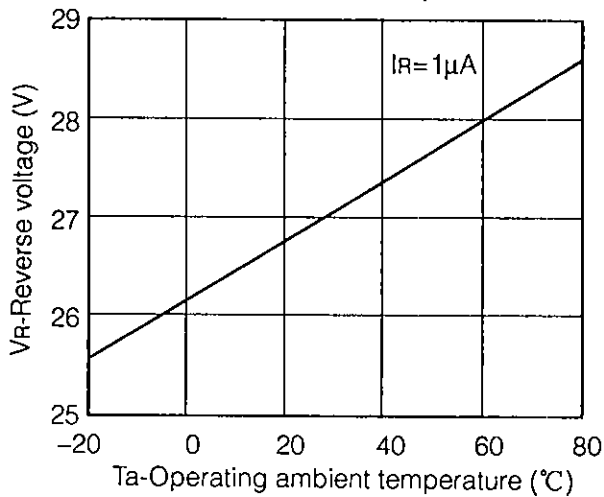
Reverse current vs. Operating ambient temperature ($V_R=15V$)



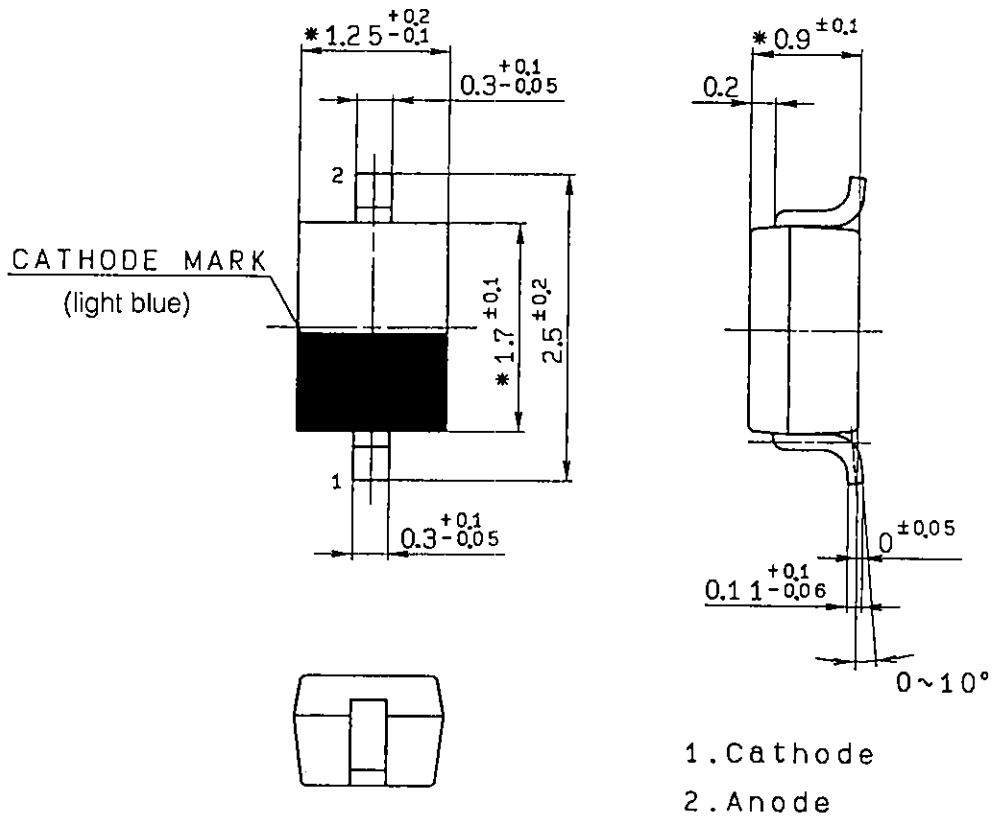
Reverse current vs. Reverse voltage



Reverse voltage vs. Operation ambient temperature



Package Outline Unit : mm



M-235