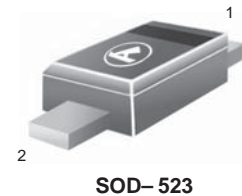


Variable Capacitance Diode for VCO

HVC362



FEATURES

- High capacitance ratio. (n =3.0.min)
- Good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.



DEVICE MARKING

HVC362 = V2

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V _R	15	V
Junction temperature	T _j	125	°C
Storage temperature	T _{stg}	- 55 to +125	°C

Notes 1. R_L = 10kΩ

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I _{R1}	-	-	10	nA	V _R = 10V
	I _{R2}	-	-	100		V _R = 10V, T _A = 60°C
Capacitance	C ₁	41.6	-	49.9	pF	V _R = 1V, f = 1 MHz
	C ₄	10.1	-	14.8		V _R = 4V, f = 1 MHz
Capacitance ratio	n	3.0	-	-	-	C ₁ / C ₄
Series resistance	r _s	-	-	2.0	Ω	V _R = 4V, f = 100 MHz
ESD-Capability*1	-	80	-	-	V	*C = 200pF, Both forward and reverse direction 1 pulse.

Notes 1. Failure criterion ; I_R ≥ 20nA at V_R = 10 V

HVC362

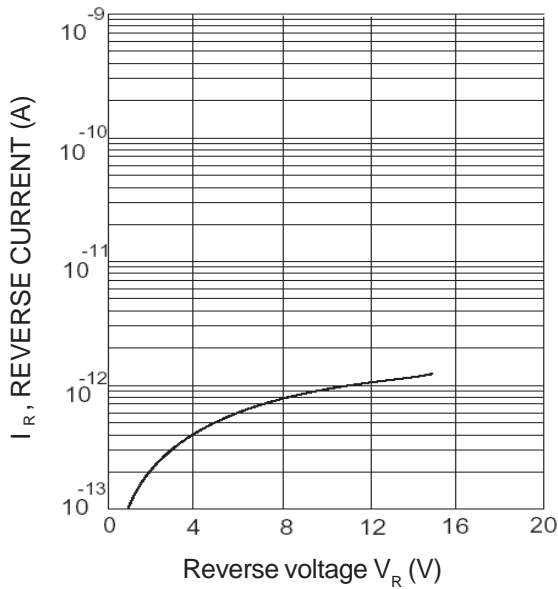


Fig.1 Reverse current Vs. Reverse voltage

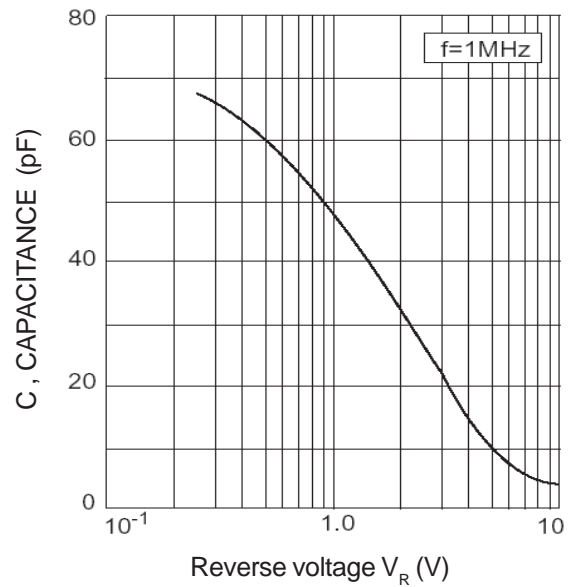


Fig.2 Capacitance Vs. Reverse voltage

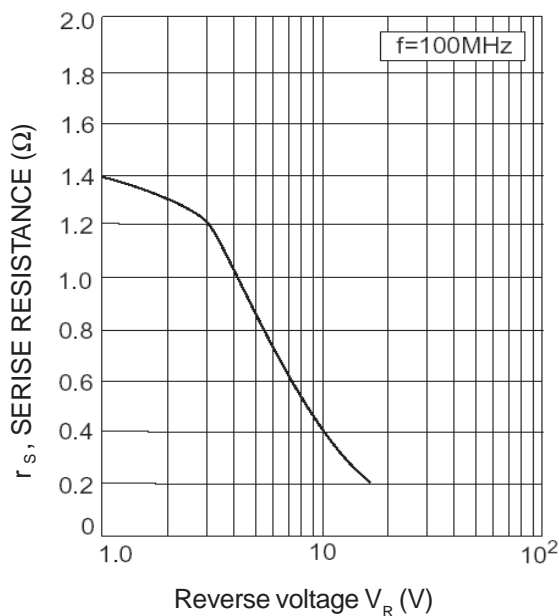


Fig.3 Series resistance Vs. Reverse voltage

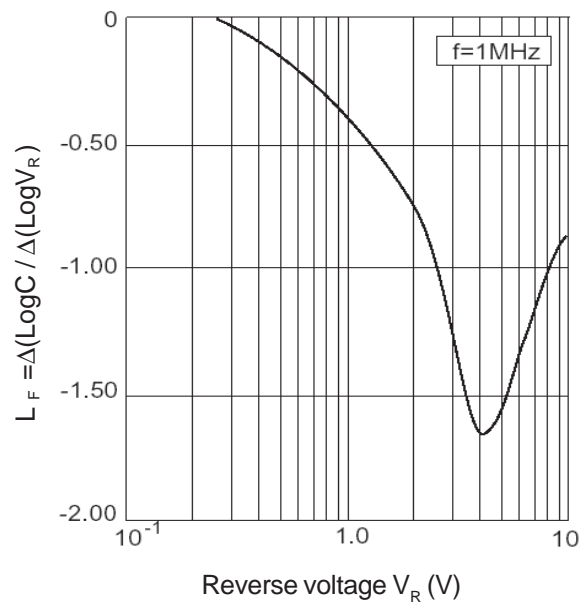


Fig.4 Linearity factor Vs. Reverse voltage