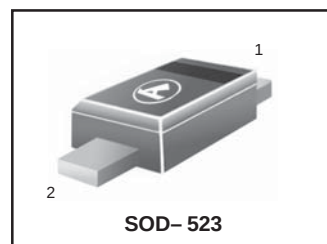


Variable Capacitance Diode for VCXO

FEATURES

- High capacitance ratio and good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

HVC365



DEVICE MARKING

HVC365 = V6

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	V
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	- 55 to +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	—	—	10	nA	$V_R = 10\text{V}$
	I_{R2}	—	—	100		$V_R = 10\text{V}, T_A = 60^\circ\text{C}$
Capacitance	C_1	27.05	—	28.55	pF	$V_R = 1\text{V}, f = 1\text{MHz}$
	C_4	6.05	—	7.55		$V_R = 4\text{V}, f = 1\text{MHz}$
Capacitance ratio	n	3.0	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	1.5	Ω	$V_R = 4\text{V}, f = 470\text{MHz}$
ESD-Capability ^{*1}	—	80	—	—	V	$C = 200\text{pF}$, Both forward and reverse direction 1 pulse.

Notes 1. Failure criterion ; $I_R \geq 20\text{nA}$ at $V_R = 10\text{V}$

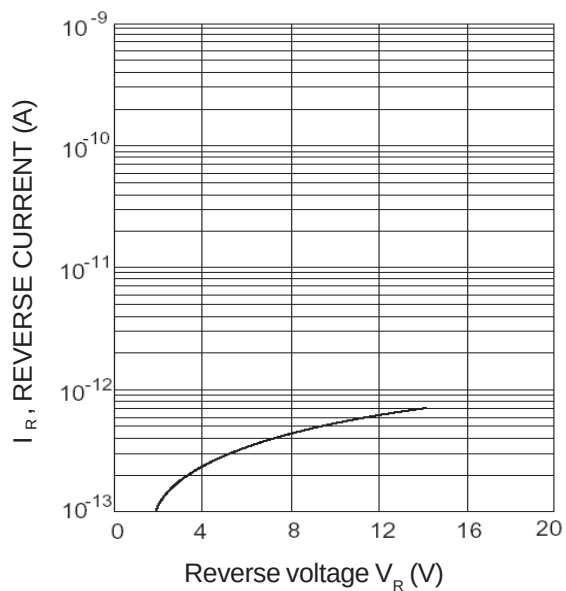
HVC365


Fig.1 Reverse current Vs. Reverse voltage

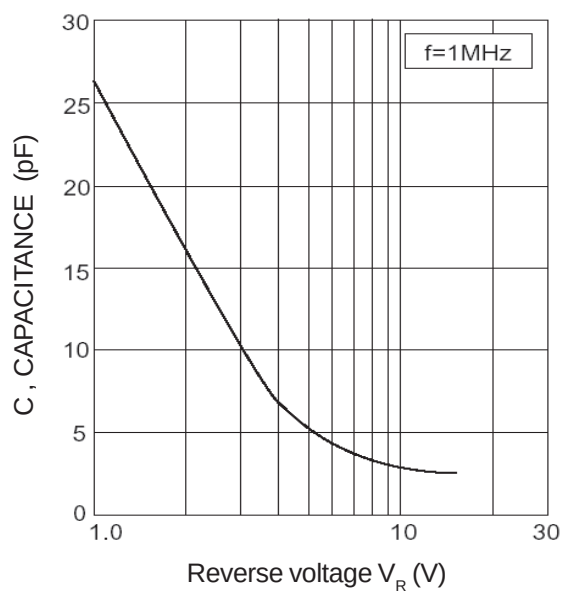


Fig.2 Capacitance Vs. Reverse voltage