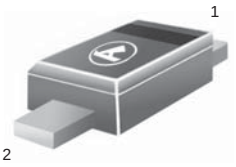
Variable Capacitance Diode for VCXO

HVC359

FEATURES

- High capacitance ratio and good C-V linearity.
- To be usable at low voltage.
- Ultra small Flat Package (UFP) is suitable for surface mount design.



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DEVICE MARKING

HVC359 = S

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Item	Symbol	Value	Unit
Reversevoltage	V_R	15	V
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	– 55 to +125	°C

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	24.8	–	29.8	pF	V_R = 1V, f = 1 MHz
	C_4	6.0	–	8.3		V_R = 4V, f = 1 MHz
Capacitance ratio	n	3.0	–	–	–	C_1/ C_4
Series resistance	r_s	–	–	1.5	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 ; $I_R \geq$ 20nA at V_R =10 V

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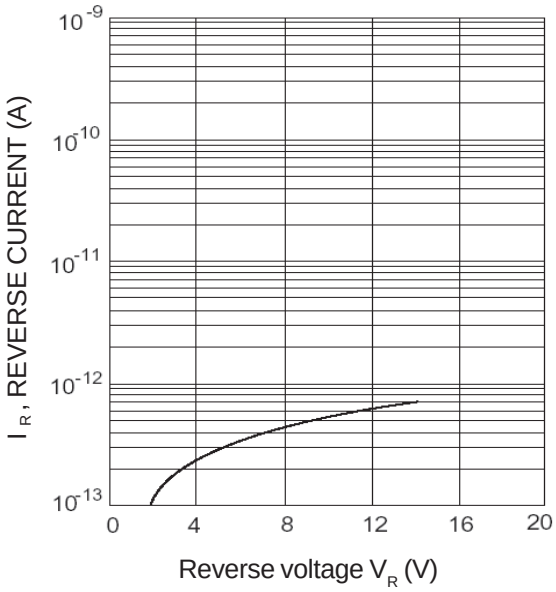

Fig.1 Reverse current Vs. Reverse voltage

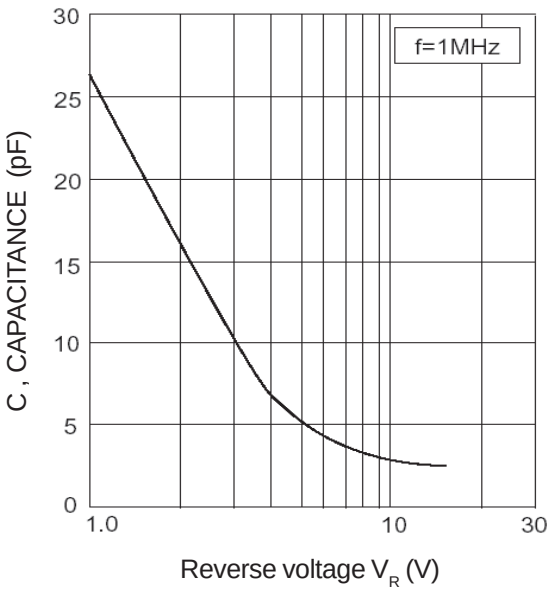

Fig.2 Capacitance Vs. Reverse voltage