

HVC359

Variable Capacitance Diode for VCXO

HITACHI

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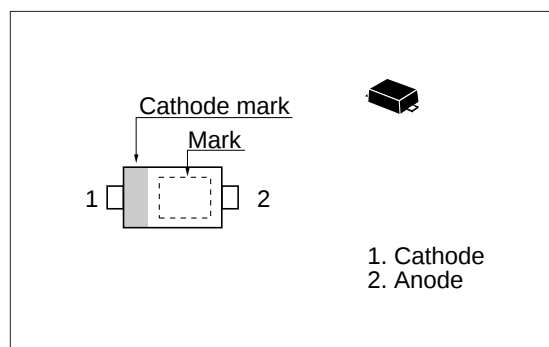
Features

- 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.

Ordering Information

Type No.	Laser Mark	Package Code
HVC359	S	UFP

Outline



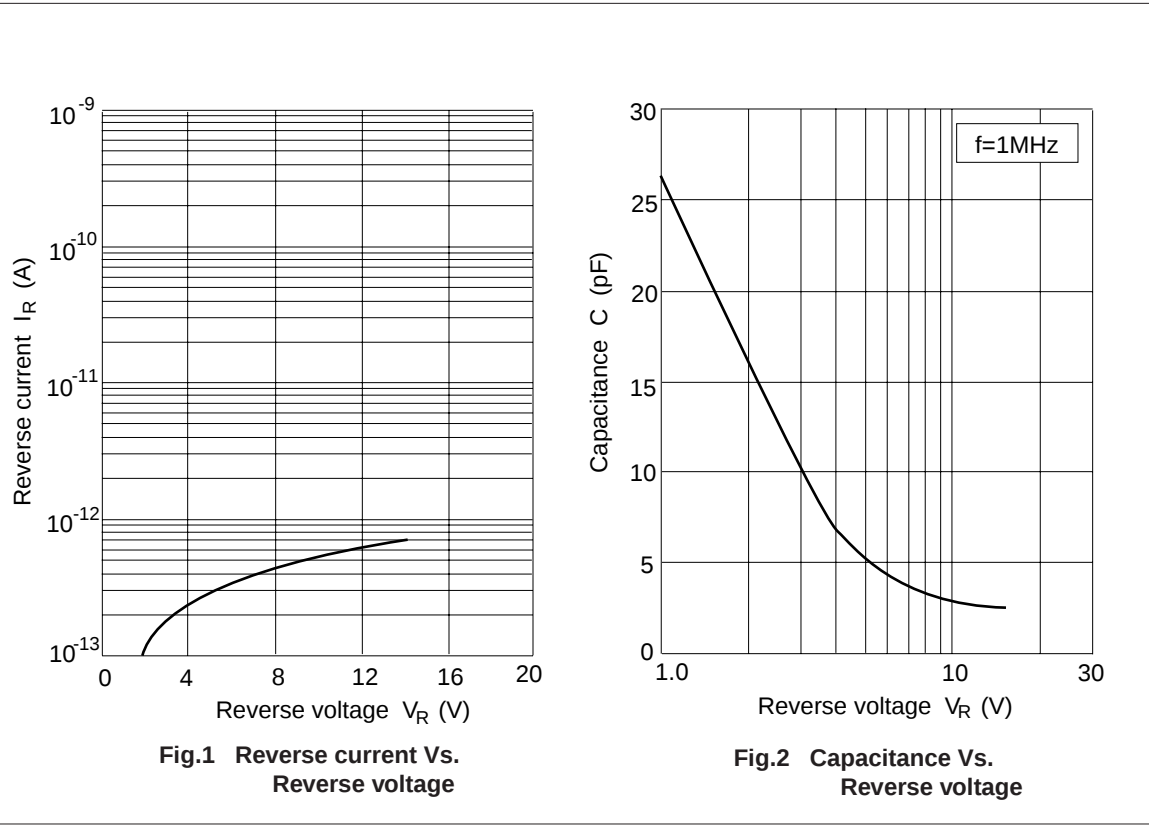
Absolute Maximum Ratings (Ta = 25°C)

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

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	—	—	10	nA	$V_R = 10\text{ V}$
	I_{R2}	—	—	100		$V_R = 10\text{ V}$, $T_a = 60\text{ °C}$
Capacitance	C_1	24.8	—	29.8	pF	$V_R = 1\text{ V}$, $f = 1\text{ MHz}$
	C_4	6.0	—	8.3		$V_R = 4\text{ V}$, $f = 1\text{ MHz}$
Capacitance ratio	n	3.0	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	1.5	Ω	$V_R = 4\text{ V}$, $f = 100\text{ MHz}$
ESD-Capability	—	80	—	—	V	* $C = 200\text{ pF}$, Both forward and reverse direction 1 pulse.

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



Package Dimensions

Unit: mm

