ADE-208-419(Z)

HVC359
Variable Capacitance Diode for VCXO

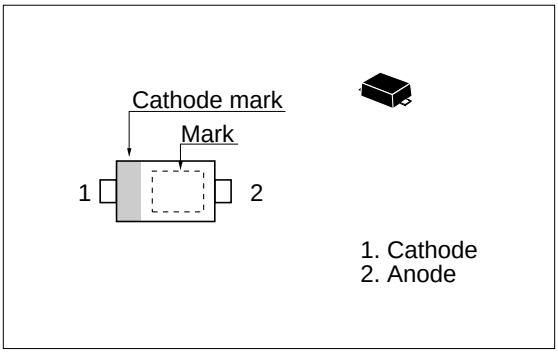
HITACHI

Rev. 0
Nov. 1995

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.

Outline



Ordering Information

Type No.	Laser Mark	Package Code
HVC359	S	UFP

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 V
	I_{R2}	—	—	100		V_R = 10 V , Ta = 60 °C
Capacitance	C_1	24.8	—	29.8	pF	V_R = 1 V , f = 1 MHz
	C_4	6.0	—	8.3		V_R = 4 V , f = 1 MHz
Capacitance ratio	n	3.0	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	1.5	Ω	V_R = 4 V , f = 100MHz
ESD-Capability	—	80	—	—	V	*C=200pF, Both forward and reverse direction 1 pulse.

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

HVC359

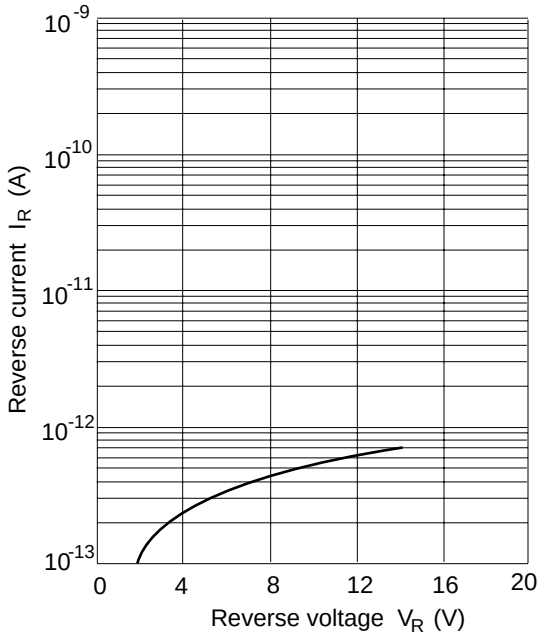


Fig.1 Reverse current Vs. Reverse voltage

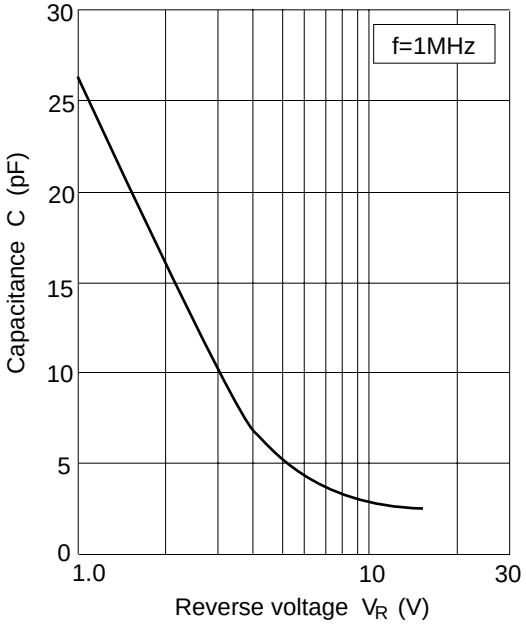
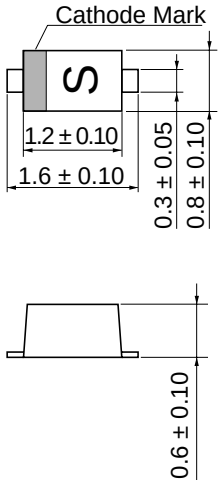


Fig.2 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



1 Cathode
2 Anode

HITACHI Code	UFP
JEDEC Code	—
EIAJ Code	SC-79
Weight (g)	0.0016

ADE-208-428(Z)

HVC365
Variable Capacitance Diode for VCXO

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Rev. 0
Jan. 1996

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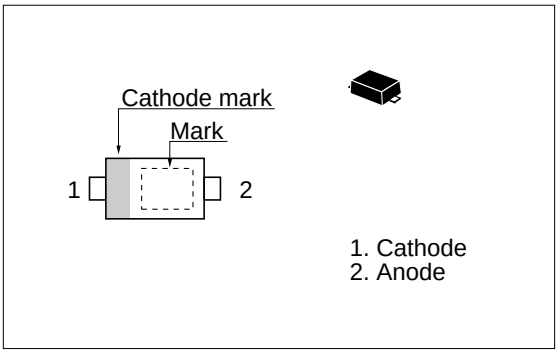
Outline



Ordering Information

Type No.	Laser Mark	Package Code
HVC365	V6	UFP

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 V
	I_{R2}	—	—	100		V_R = 10 V , Ta = 60 °C
Capacitance	C_1	27.05	—	28.55	pF	V_R = 1 V , f = 1 MHz
	C_4	6.05	—	7.55		V_R = 4 V , f = 1 MHz
Capacitance ratio	n	3.0	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	1.5	Ω	V_R = 4 V , f = 100MHz
ESD-Capability	—	80	—	—	V	*C=200pF, Both forward and reverse direction 1 pulse.

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

HVC365

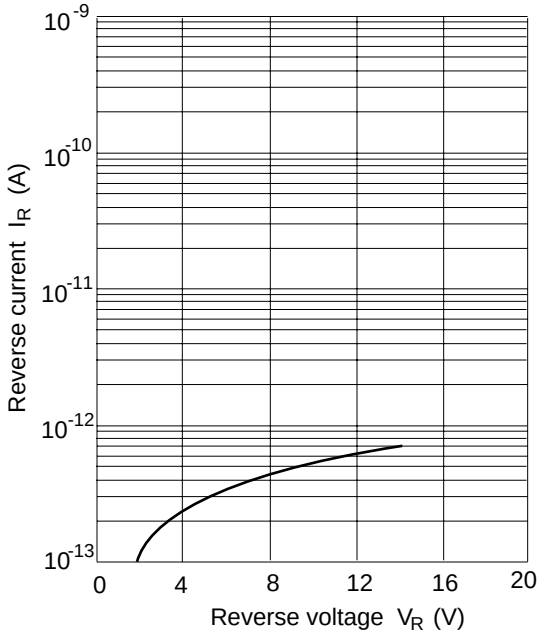


Fig.1 Reverse current Vs. Reverse voltage

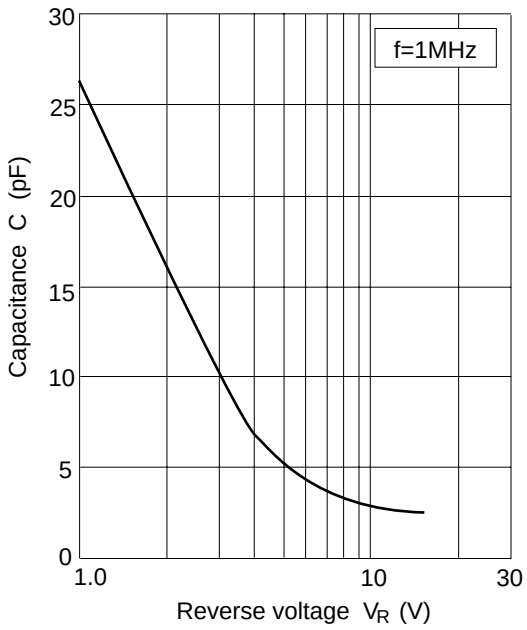
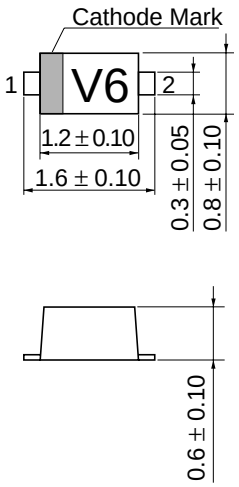


Fig.2 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



1 Cathode
2 Anode

HITACHI Code	UFP
JEDEC Code	—
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Weight (g)	0.0016