HVD399C

Variable Capacitance Diode for VCO

REJ03G0051-0100Z
Rev.1.00
Jul.10.2003

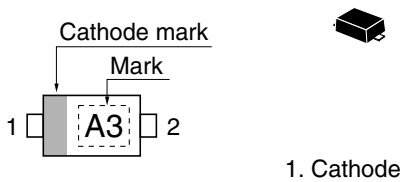
Features

- High capacitance ratio. (n = 2.30 to 2.46)
- Low series resistance. (rs = 0.40 Ω max)
- Super small Flat Package (SFP) is suitable for surface mount design..

Ordering Information

Type No.	Laser Mark	Package Code
HVD399C	A3	SFP

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–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}	—	—	50		V_R = 10 V, Ta = 60°C
Capacitance	$C_{0.5}$	18.5	—	20.0	pF	V_R = 0.5 V, f = 1 MHz
	$C_{2.5}$	7.3	—	8.6		V_R = 2.5 V, f = 1 MHz
Capacitance ratio	n	2.30	—	2.46	—	$C_{0.5}/C_{2.5}$
Series resistance	r_s	—	—	0.4	Ω	V_R = 1 V, f = 470 MHz

Notes: 1. Please do not use the soldering iron due to avoid high stress to the SFP package.
2. The material of lead is exposed for cutting plane. Therefore, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

Main Characteristic

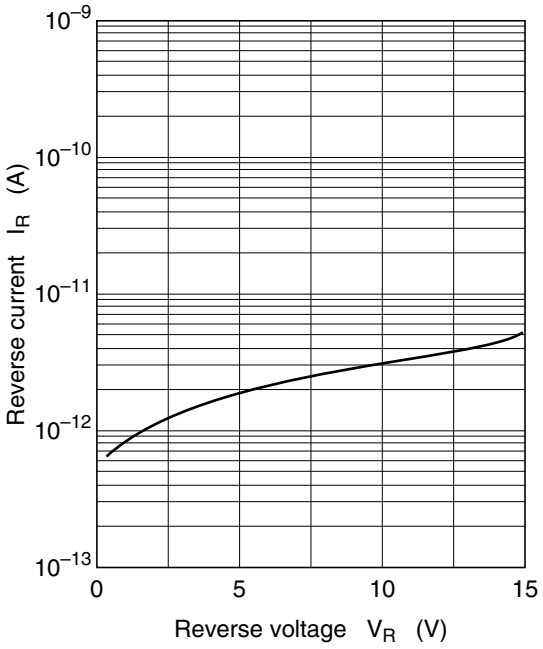


Fig.1 Reverse current vs. Reverse voltage

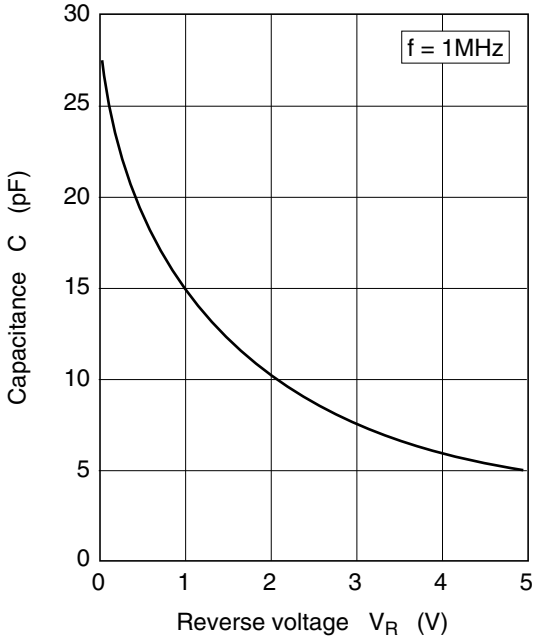


Fig.2 Capacitance vs. Reverse voltage

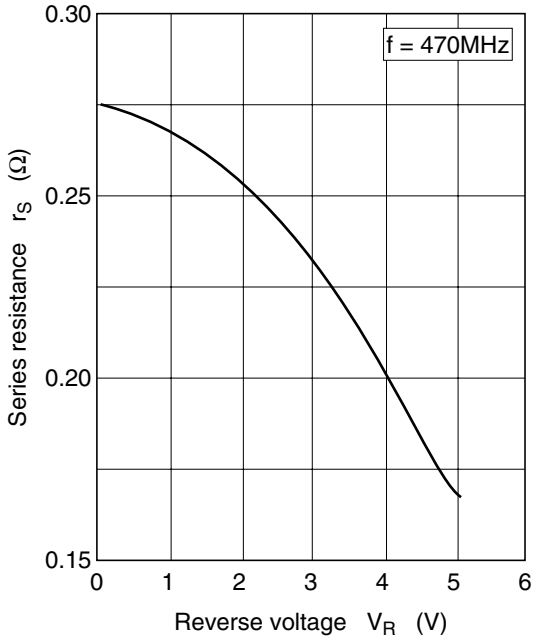


Fig.3 Series resistance vs. Reverse voltage

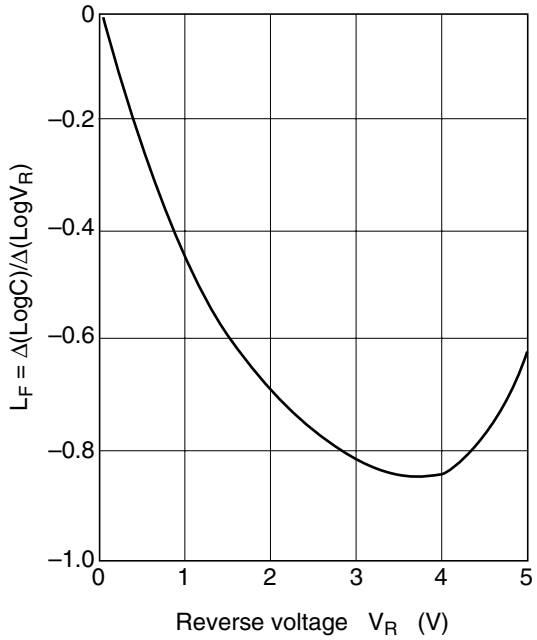
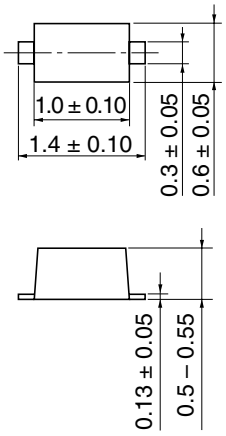


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

As of January, 2003

Unit: mm



Package Code	SFP
JEDEC	—
JEITA	—
Mass (reference value)	0.0010 g

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