

HVC317B

Variable Capacitance Diode for tuner

HITACHI

ADE-208-445(Z)

Rev 0

Apl. 1996

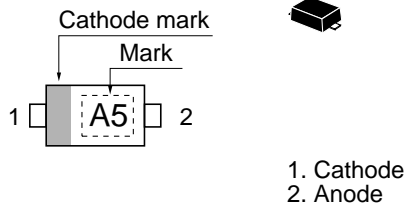
Features

- High capacitance ratio. ($n = 13.0$ min)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC317B	A5	UFP

Outline



HVC317B

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	35	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	$V_R = 30V$
	I_{R2}	—	—	100		$V_R = 30V, T_a = 60\text{ °C}$
Capacitance	C_1	9.00	—	11.5	pF	$V_R = 1V, f = 1\text{ MHz}$
	C_{25}	0.60	—	0.80		$V_R = 25V, f = 1\text{ MHz}$
Capacitance ratio	n	13.0	—	—	—	C_1 / C_{25}
Series resistance	r_s	—	—	1.6	Ω	$V_R = 5V, f = 470\text{ MHz}$
Matching error	$\Delta C/C \times 1$	—	—	6.0	%	$V_R = 1\text{ to }25V, f = 1\text{ MHz}$

Note: 1. C.C system (Continuous Connected taping system) enable to make any 10 pcs of $\Delta C/C$ continuous in a reel , expect extention to another group.
Calculate Matching Error,

$$\Delta C/C = \frac{(C_{max} - C_{min})}{C_{min}} \times 100 (\%)$$

Main Characteristic

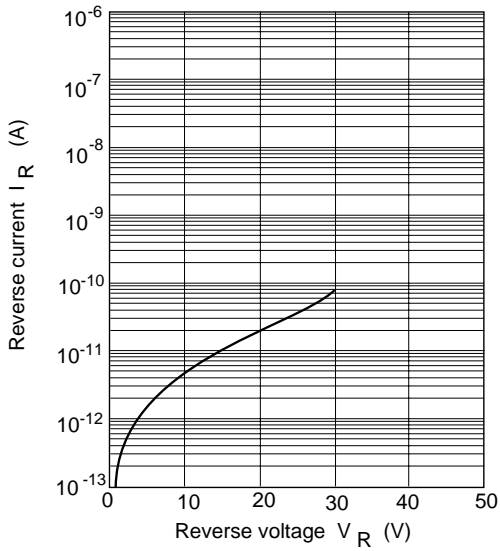


Fig.1 Reverse current Vs. Reverse voltage

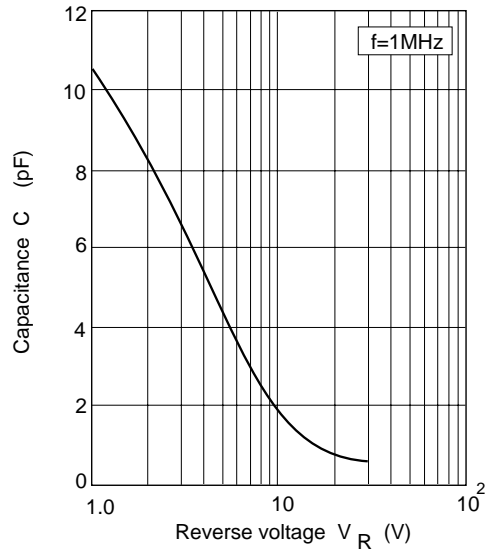


Fig.2 Capacitance Vs. Reverse voltage

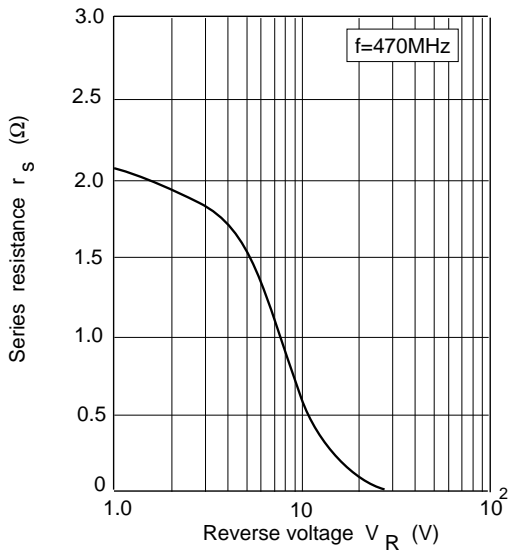


Fig.3 Series resistance Vs. Reverse voltage

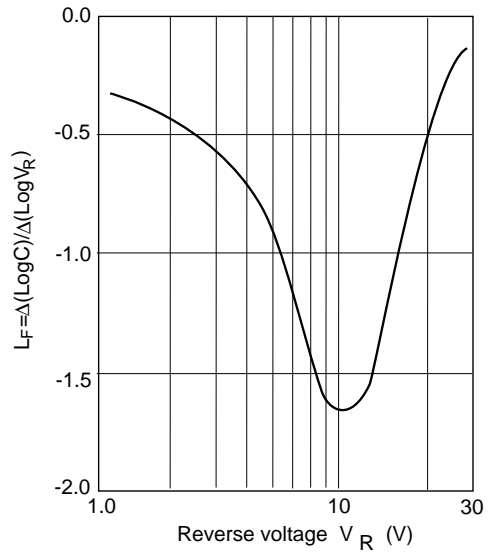
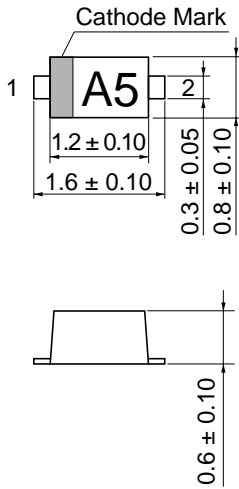


Fig.4 Linearity factor Vs. Reverse voltage

HVC317B

Package Dimensions

Unit : mm



1. Cathode
2. Anode

Hitachi Code	<i>UFP</i>
JEDEC Code	—
EIAJ Code	SC-79
Weight(g)	0.0016

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