
HVC317B

Variable Capacitance Diode for tuner

HITACHI

ADE-208-445(Z)

Rev 0

April 1996

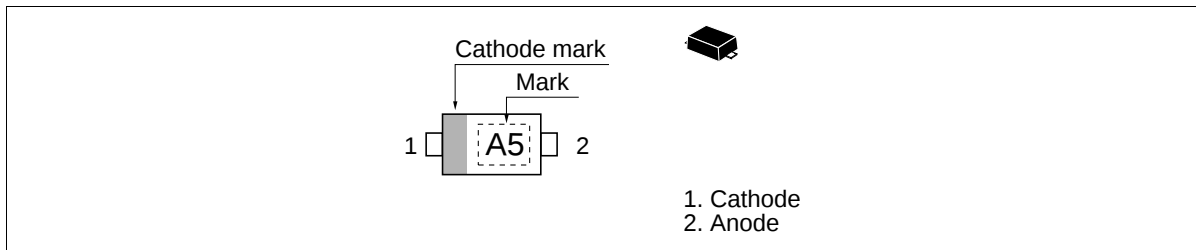
Features

- 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



Absolute Maximum Ratings ($T_a = 25^{\circ}\text{C}$)

Item	Symbol	Value	Unit
Reverse voltage	VR	35	V
Junction temperature	Tj	125	$^{\circ}\text{C}$
Storage temperature	Tstg	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$	$^{\circ}\text{C}$

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Electrical Characteristics (Ta = 25°C)

tem	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	IR1	Å\	Å\	10	nA	VR = 30V
	IR2	Å\	Å\	100		VR = 30V, Ta = 60 °C
Capacitance	C1	9.00	Å\	11.5	pF	VR = 1V, f = 1 MHz
	C25	0.60	Å\	0.80		VR = 25V, f = 1 MHz
Capacitance ratio	n	13.0	Å\	Å\	Å\	C1/ C25
Series resistance	rs	Å\	Å\	1.6	Ω	VR = 5V, f = 470 MHz
Matching error	ΔC/C*1	Å\	Å\	6.0	%	VR = 1~25V, f = 1 MHz

Note 1. C.C system (Continuous Connected taping system) enable to make any 10 pcs of ΔC/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

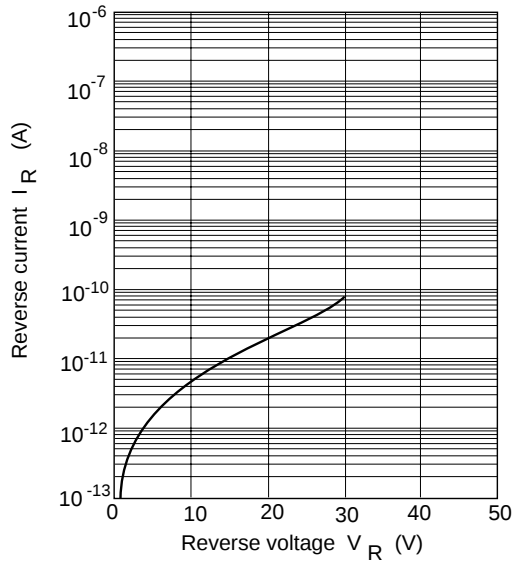


Fig.1 Reverse current Vs. Reverse voltage

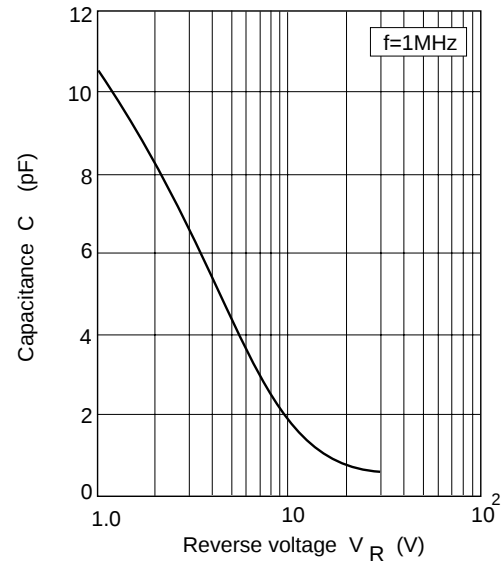


Fig.2 Capacitance Vs. Reverse voltage

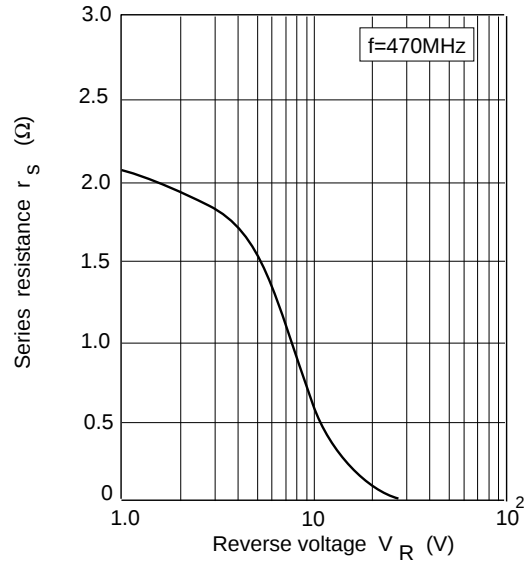


Fig.3 Series resistance Vs. Reverse voltage

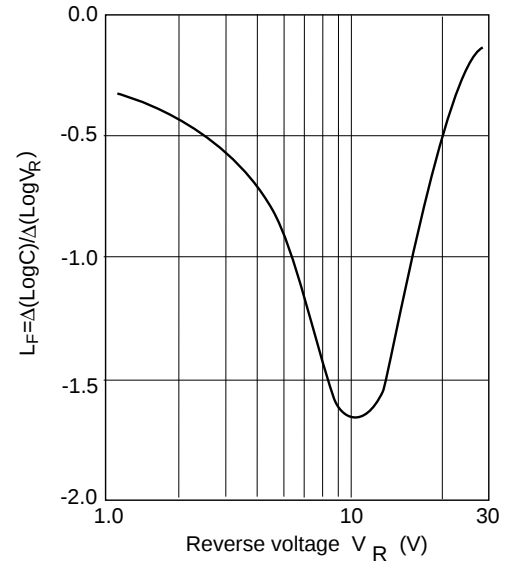


Fig.4 Linearity factor Vs. Reverse voltage

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Package Dimensions

Unit : mm

