
HVC202B

Variable Capacitance Diode for UHF/VHF tuner

HITACHI

ADE-208-406 (Z)
Product Preview
Rev. 0

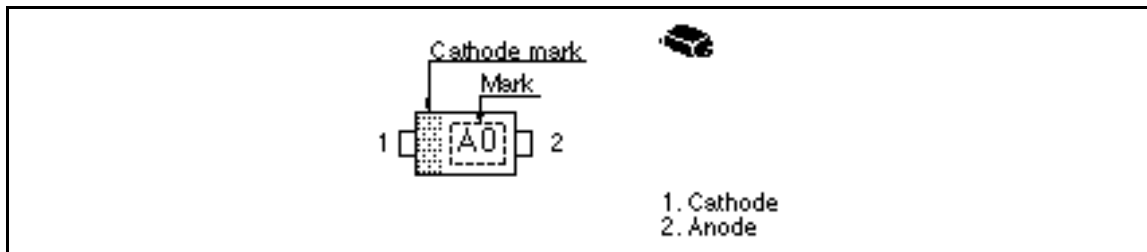
Features

- Σ Low matching error. ($DC/C = 1.8\%$ max)
- Σ High capacitance ratio. ($n = 6.3$ min)
- Σ Low series resistance. ($r_s = 0.57\Omega$ max)
- Σ Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC202B	A0	UFP

Outline



HVC202B

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}^{*1}	35	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

Note 1. RL=10 kW

Electrical Characteristics (Ta = 25°C)

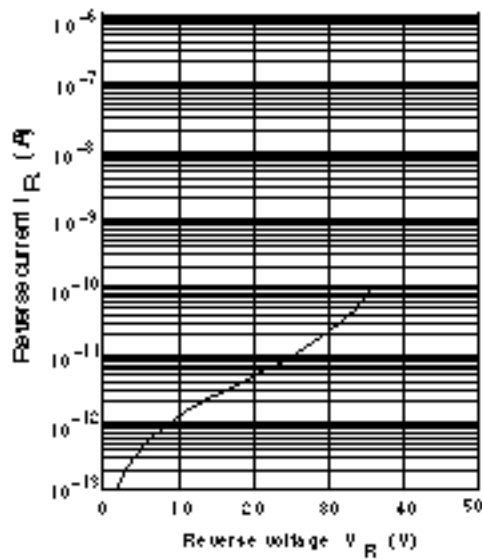
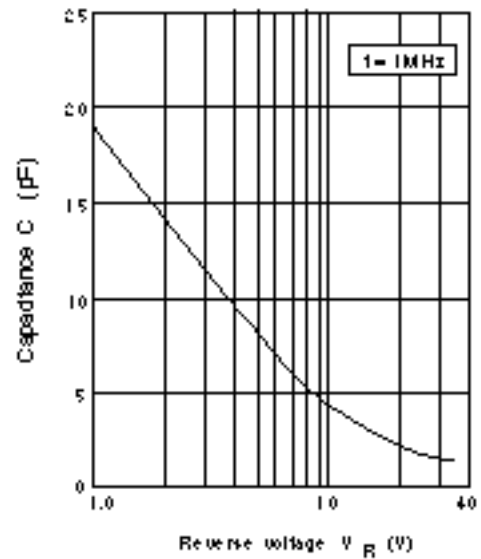
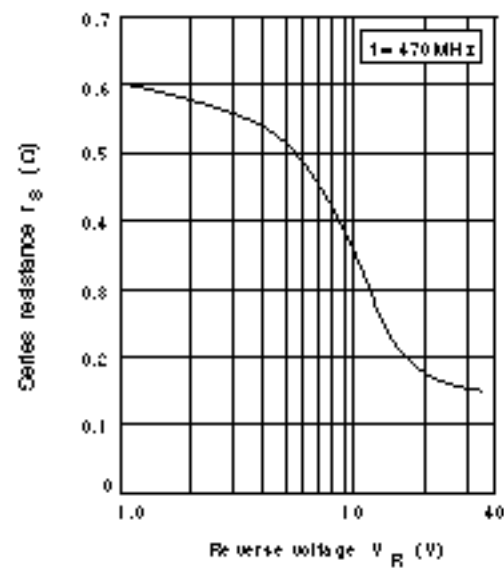
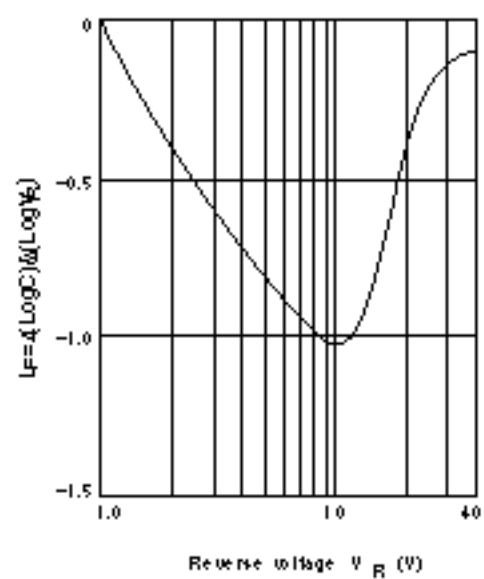
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	—	—	10	nA	$V_R = 30\text{ V}$
	I_{R2}	—	—	100		$V_R = 30\text{ V}$, Ta= 60°C
Capacitance	C_2	14.15	—	15.75	pF	$V_R = 2\text{ V}$, f = 1 MHz
	C_{25}	2.06	—	2.35		$V_R = 25\text{ V}$, f = 1 MHz
Capacitance ratio	n	6.30	—	—	—	C_2/C_{25}
Series resistance	r_s	—	—	0.57	W	$V_R = 5\text{ V}$, f = 470 MHz
Matching error	DC/C* ¹	—	—	1.8	%	$V_R = 2\text{ to }25\text{ V}$, f = 1 MHz

Note:

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

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

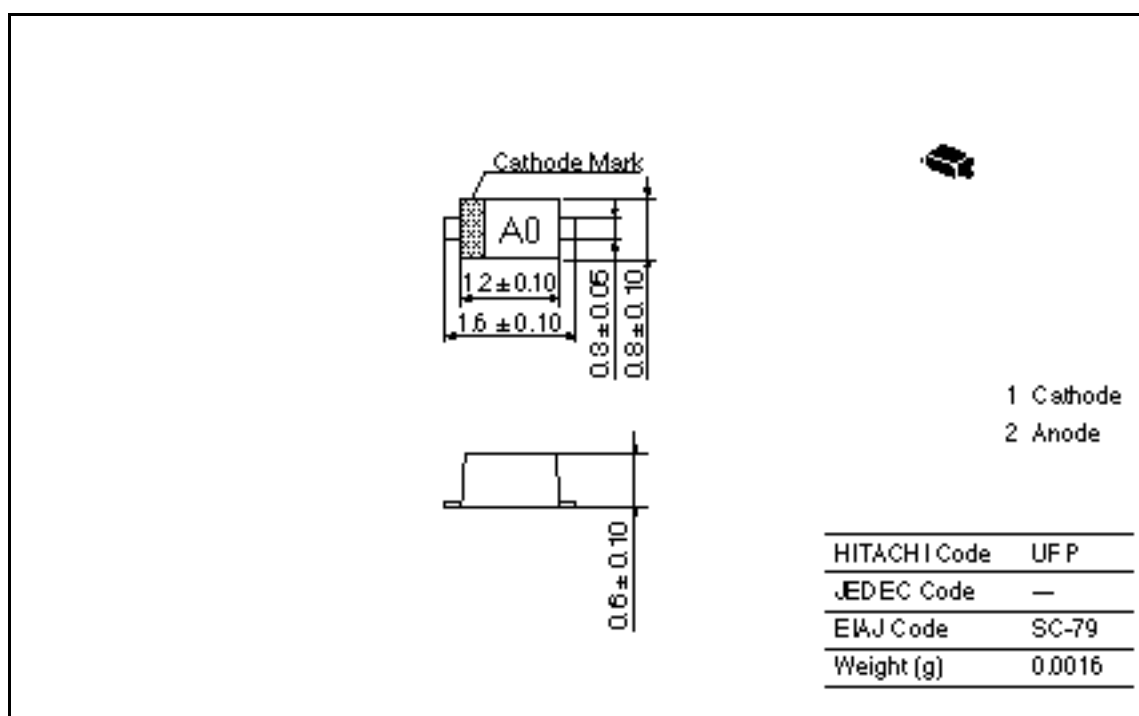
Main Characteristic

Fig.1 Reverse current I_R vs. Reverse voltageFig.2 Capacitance C vs. Reverse voltageFig.3 Series resistance r_s vs. Reverse voltageFig.4 Linearity factor L vs. Reverse voltage

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Package Dimensions

Unit : mm



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