

HVC327C

REJ03G0053-0200

Rev.2.00

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Variable Capacitance Diode for VHF tuner

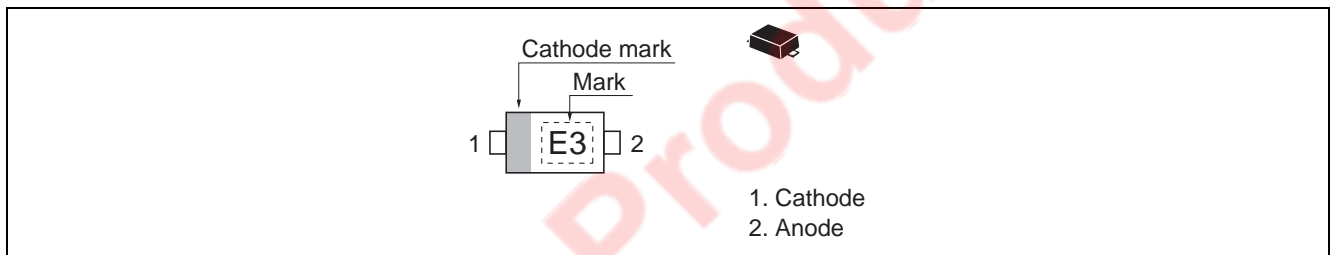
Features

- Low voltage type (tuning voltage 1 to 10V), it is suitable for ET without DC/DC converter.
- High capacitance ratio ($n = 11.0$ min).
- Low series resistance and good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
HVC327C TRU	E3	UFP	PWSF0002ZA-A	TRU (4,000pcs / reel)
HVC327C KRU				KRU (8,000pcs / reel)

Pin Arrangement



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	30.5	—	33.5	pF	V _R = 1 V, f = 1 MHz
	C ₁₀	2.6	—	2.9		V _R = 10 V, f = 1 MHz
Capacitance ratio	n	11.0	—	—	—	C ₁ /C ₁₀
Series resistance	r _s	—	—	0.8	Ω	V _R = 5 V, f = 470 MHz
Matching error	ΔC/C *1	—	—	2.0	%	V _R = 1 to 10 V, f = 1 MHz

Notes: 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,

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

2. For UFP package, the material of lead is exposed for cutting plane. There for, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

Main Characteristics

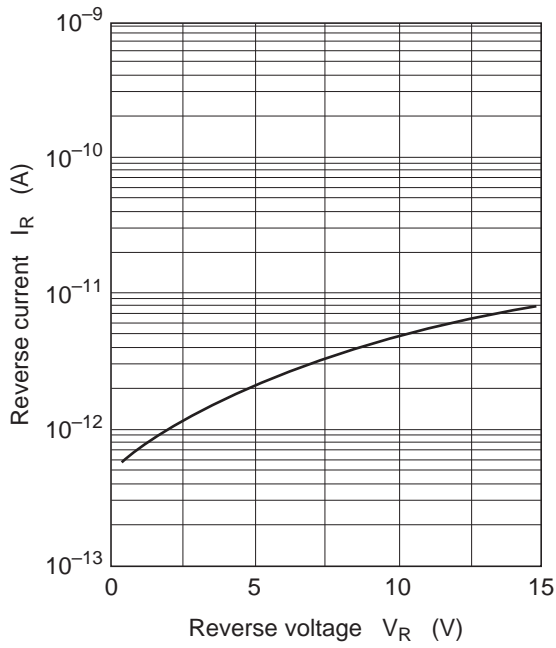


Fig.1 Reverse current vs. Reverse voltage

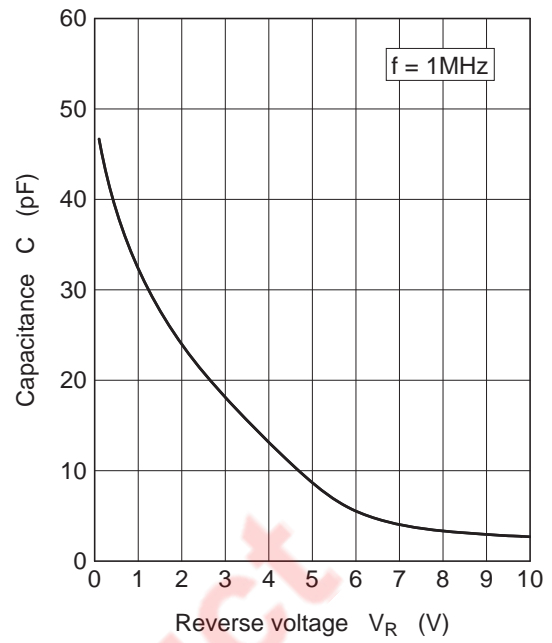


Fig.2 Capacitance vs. Reverse voltage

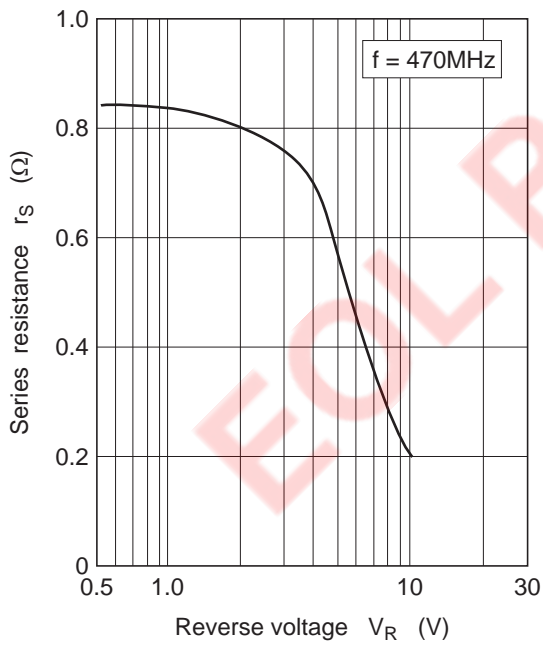
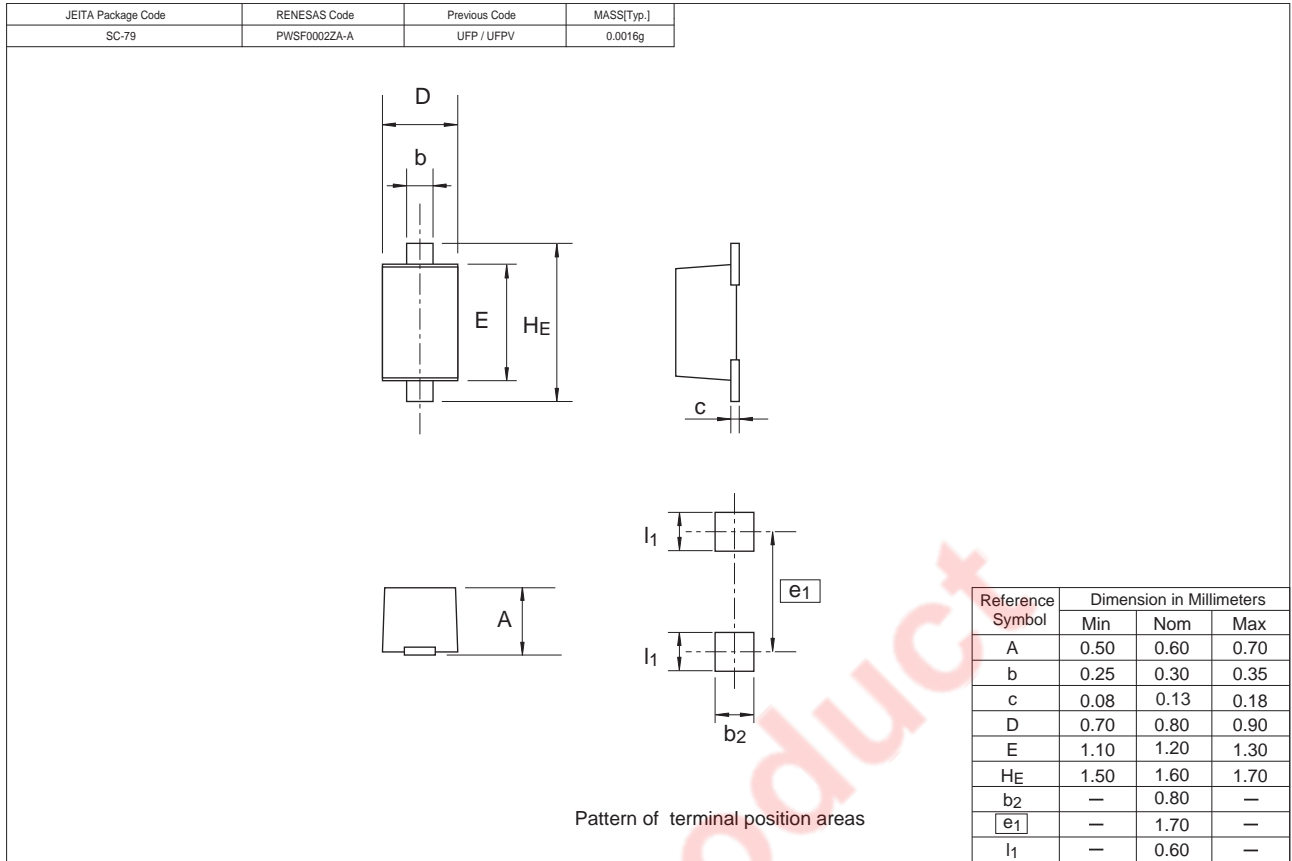


Fig.3 Series resistance vs. Reverse voltage

Package Dimensions



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