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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HVU187

Silicon Epitaxial Planar Pin Diode for High Frequency Attenuator

REJ03G0117-0500Z
(Previous: ADE-208-054D)
Rev.5.00
Oct.08.2003

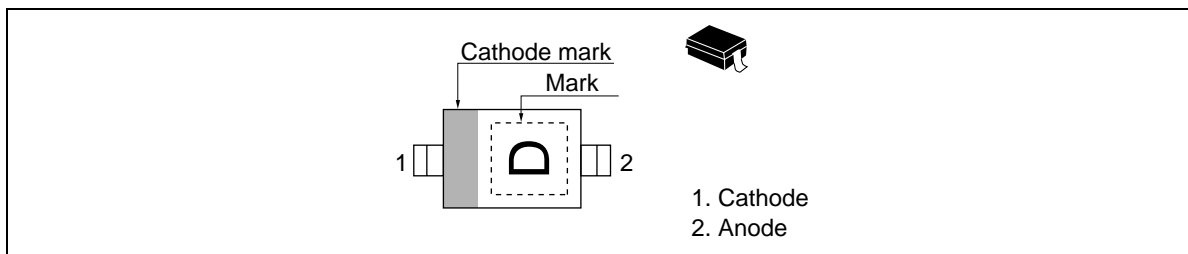
Features

- Low forward resistance. ($r_f = 5.5 \Omega$ max)
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVU187	D	URP

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	60	V
Forward current	I_F	50	mA
Power dissipation	P_d	100	mW
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_R	—	—	100	nA	$V_R = 60$ V
Forward voltage	V_F	—	—	1.0	V	$I_F = 10$ mA
Capacitance	C	—	—	2.4	pF	$V_R = 0$ V, $f = 1$ MHz
Forward resistance	r_f	3.5	—	5.5	Ω	$I_F = 10$ mA, $f = 100$ MHz
ESD-Capability *1	—	200	—	—	V	C = 200 pF, Both forward and reverse direction 1 pulse.

Note: 1. Failure criterion; $I_R \geq 100$ nA at $V_R = 60$ V

Main Characteristic

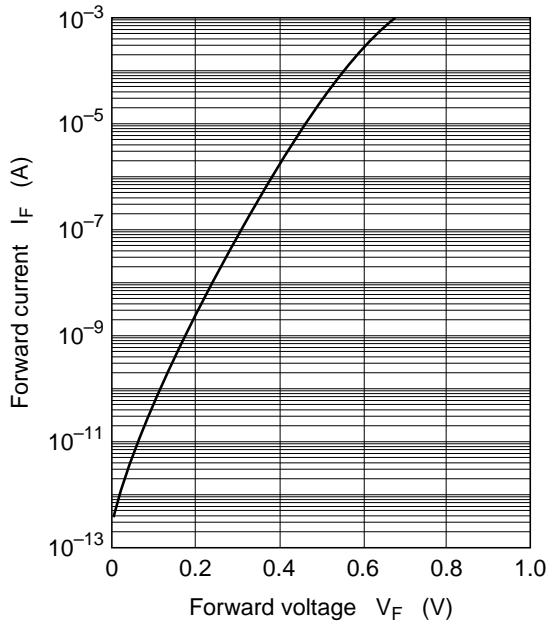


Fig.1 Forward current vs. Forward voltage

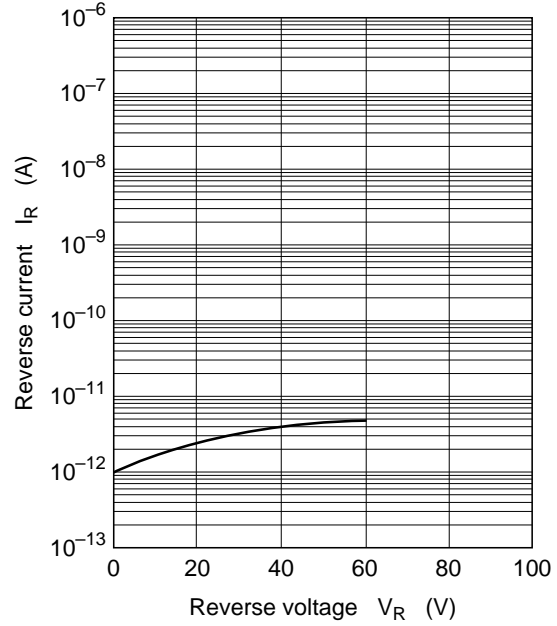


Fig.2 Reverse current vs. Reverse voltage

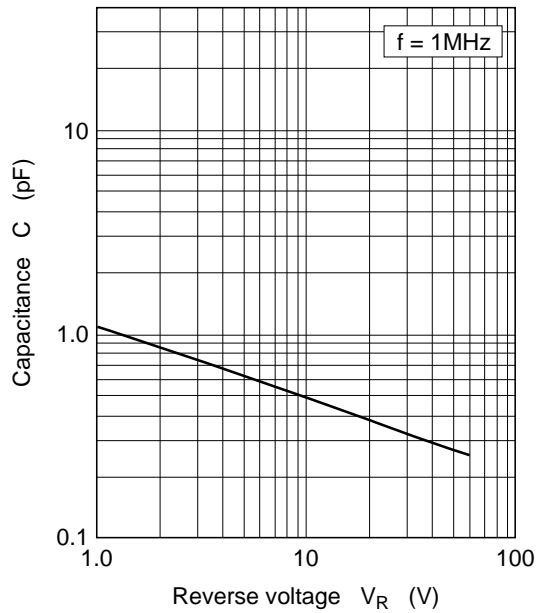


Fig.3 Capacitance vs. Reverse voltage

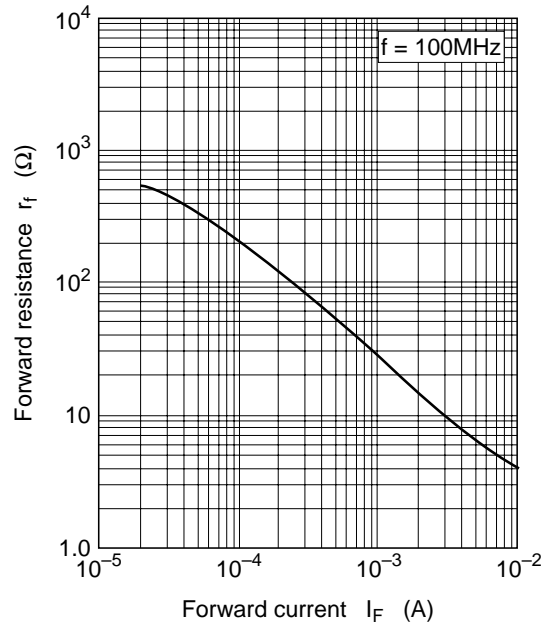
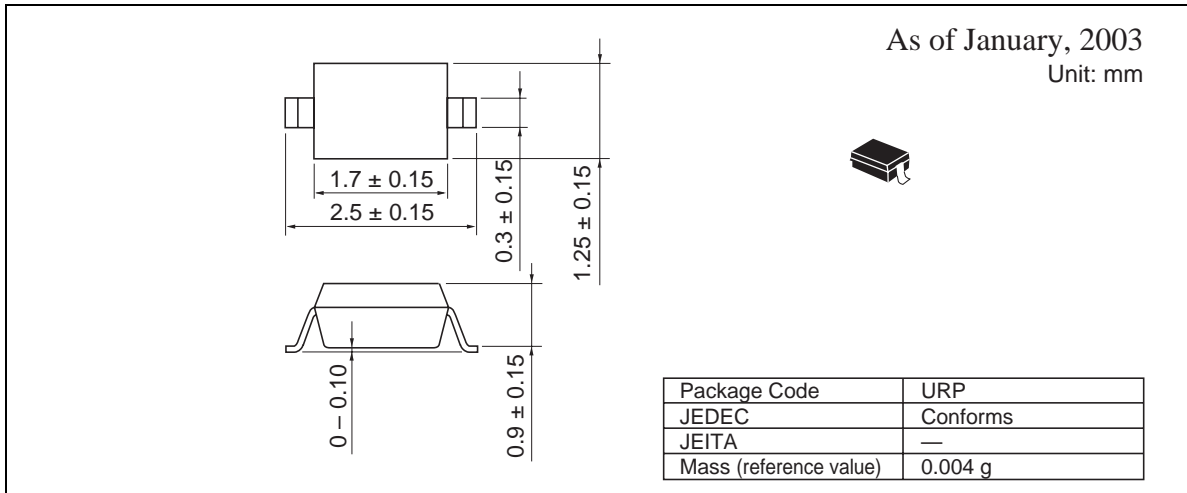


Fig.4 Forward resistance vs. Forward current

Package Dimensions



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