HVU359

Variable Capacitance Diode for VCO

REJ03G0507-0500
(Previous: ADE-208-023D)
Rev.5.00
Jan 28, 2005

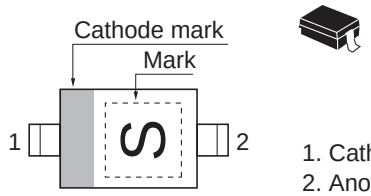
Features

- High capacitance ratio and good C-V linearity.
- To be usable at low voltage.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Renesas Code	Previous Code
HVU359	S	PTSP0002ZA-A	URP

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	−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	24.8	—	29.8	pF	V_R = 1 V, f = 1 MHz
	C_4	6.0	—	8.3		V_R = 4 V, f = 1 MHz
Capacitance ratio	n	3.0	—	—	—	C_1/C_4
Series resistance	r_S	—	—	1.5	Ω	V_R = 4 V, f = 100 MHz
ESD-Capability *1	—	200	—	—	V	C = 200 pF, R = 0 Ω, Both forward and reverse direction 1 pulse.

Note: 1. Failure criterion ; $I_R \geq 20$ nA at V_R =10 V

Main Characteristic

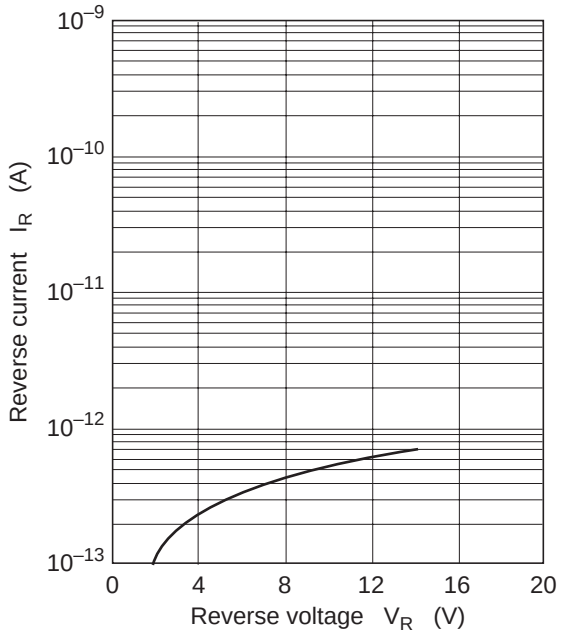


Fig.1 Reverse Current vs. Reverse Voltage

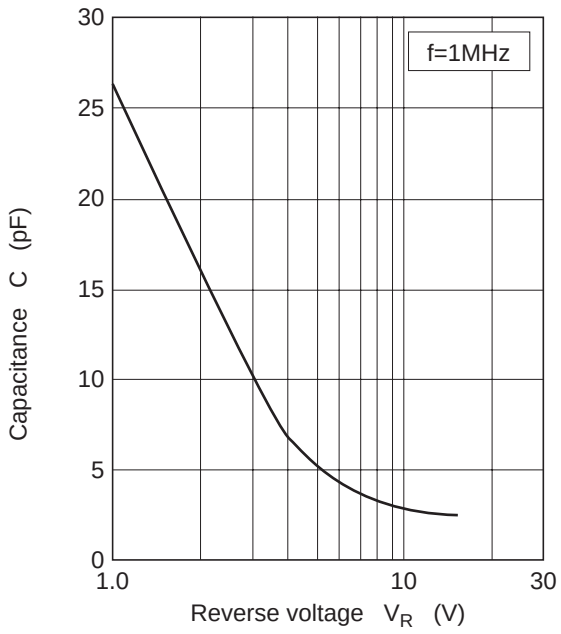
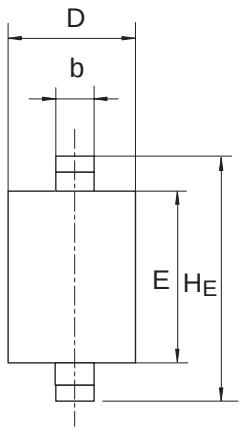
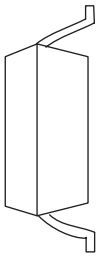


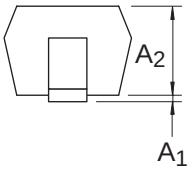
Fig.2 Capacitance vs. Reverse Voltage

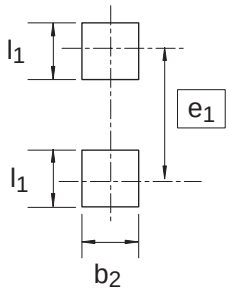
Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SC-76A	PTSP0002ZA-A	URP / URPV	0.004g









Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A_1	0	-	0.1
A_2	0.75	0.90	1.05
b	0.15	0.30	0.45
D	1.10	1.25	1.40
E	1.55	1.70	1.85
H_E	2.35	2.50	2.65
b_2	-	0.80	-
e_1	-	2.30	-
l_1	-	0.80	-

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http://www.renesas.com

Refer to "**http://www.renesas.com/en/network**" for the latest and detailed information.

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Colophon 2.0