

HVU359

Variable Capacitance Diode for VCO

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

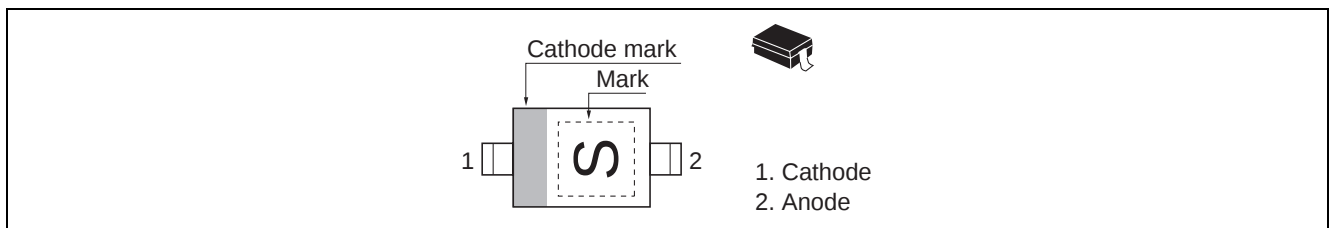
Features

- 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



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	$V_R = 10\text{ V}$
	I_{R2}	—	—	100		$V_R = 10\text{ V}$, $T_a = 60^\circ\text{C}$
Capacitance	C_1	24.8	—	29.8	pF	$V_R = 1\text{ V}$, $f = 1\text{ MHz}$
	C_4	6.0	—	8.3		$V_R = 4\text{ V}$, $f = 1\text{ MHz}$
Capacitance ratio	n	3.0	—	—	—	C_1/C_4
Series resistance	r_s	—	—	1.5	Ω	$V_R = 4\text{ V}$, $f = 100\text{ MHz}$
ESD-Capability *1	—	200	—	—	V	$C = 200\text{ pF}$, $R = 0\ \Omega$, Both forward and reverse direction 1 pulse.

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

Main Characteristic

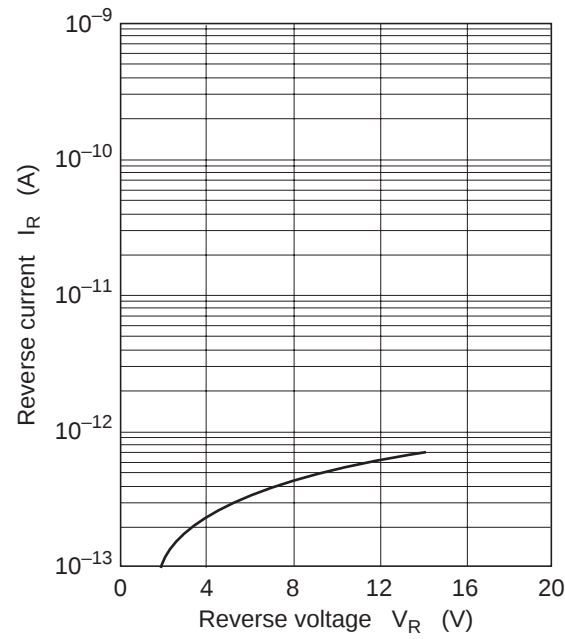


Fig.1 Reverse Current vs. Reverse Voltage

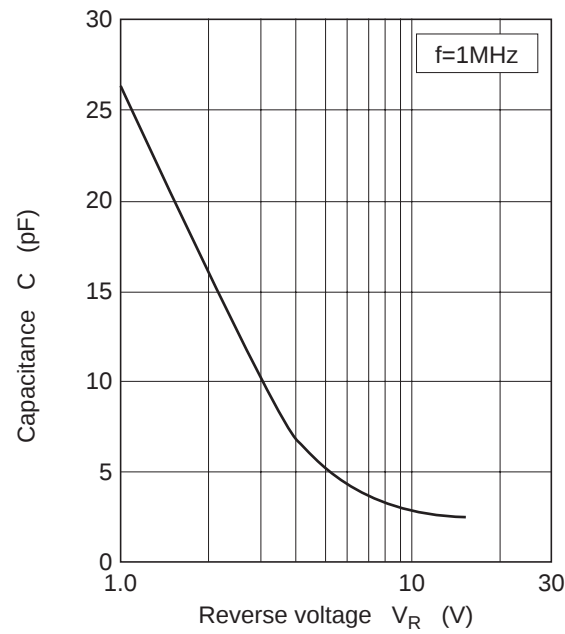
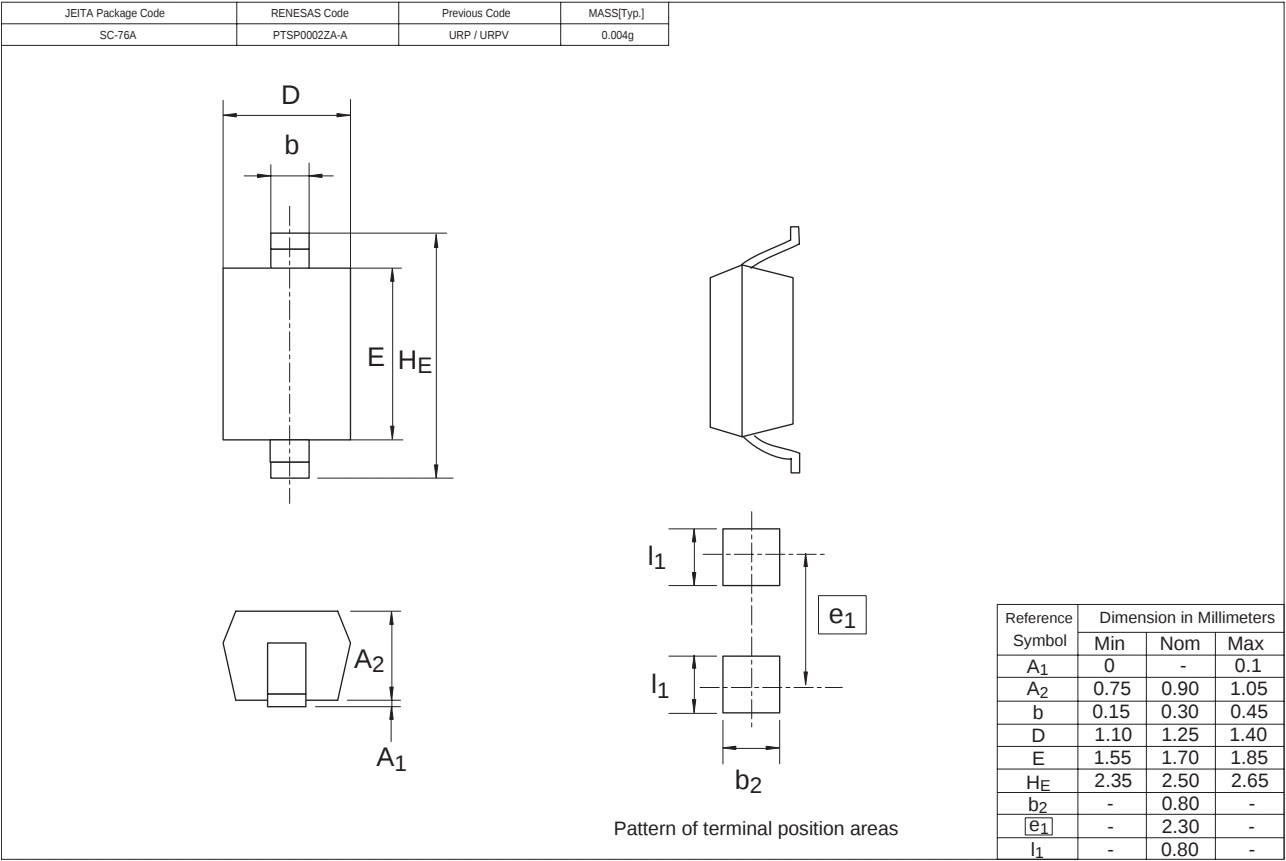


Fig.2 Capacitance vs. Reverse Voltage

Package Dimensions



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