

RKV500KG

Variable Capacitance Diode for UHF/VHF tuner

REJ03G0622-0100

Rev.1.00

Apr 01, 2005

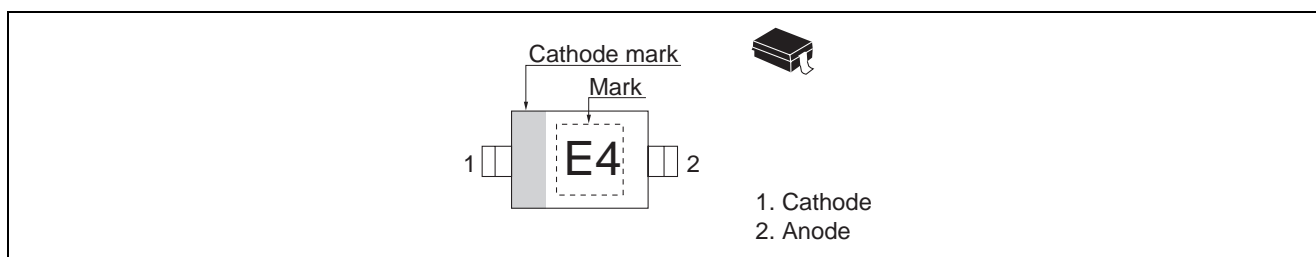
Features

- Low series resistance and good C-V linearity.
- Ultra small Resin Package (URP) is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
RKV500KG	E4	URP	PTSP0002ZA-A (URP)

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}^{*1}	35	V
Reverse voltage	V_R	34	V
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Note: 1. $R_L = 10\text{ k}\Omega$

Electrical Characteristics

(Ta = 25°C)

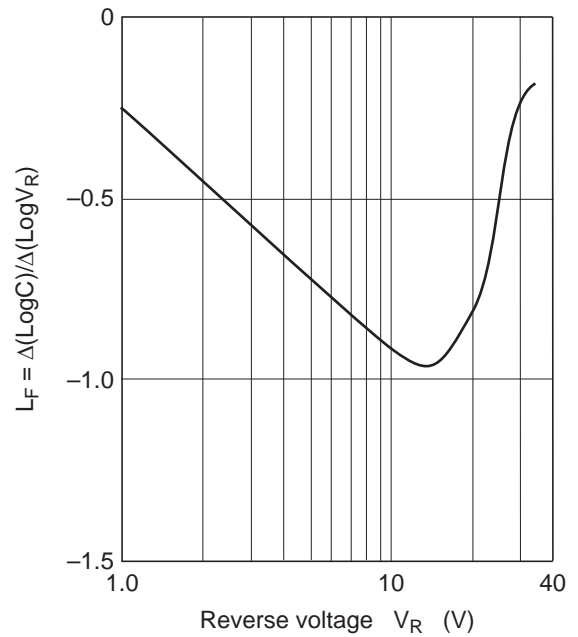
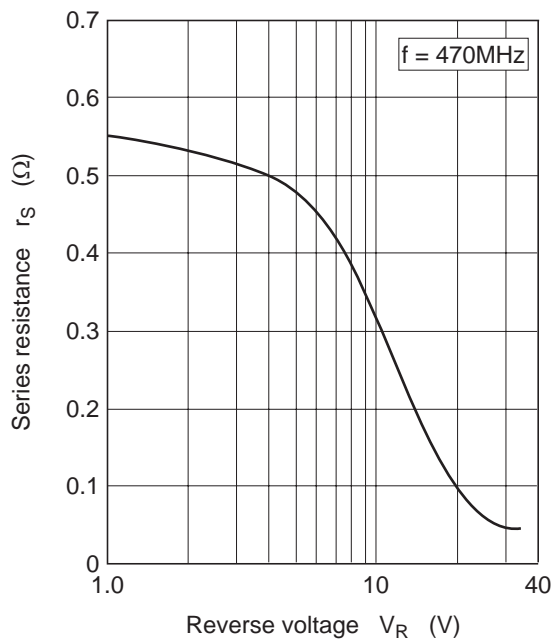
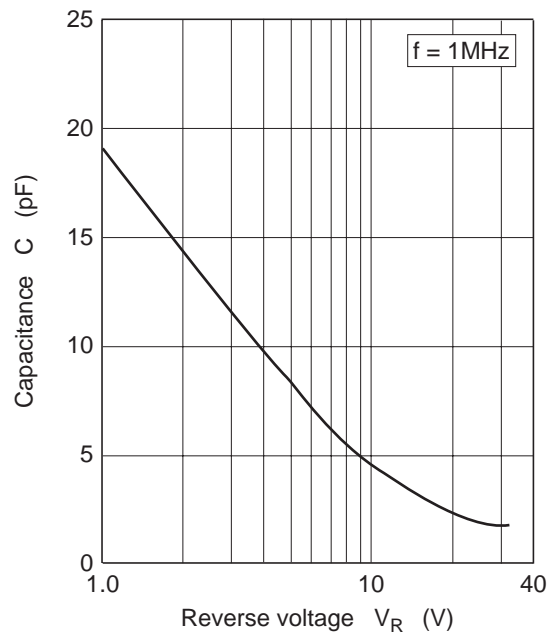
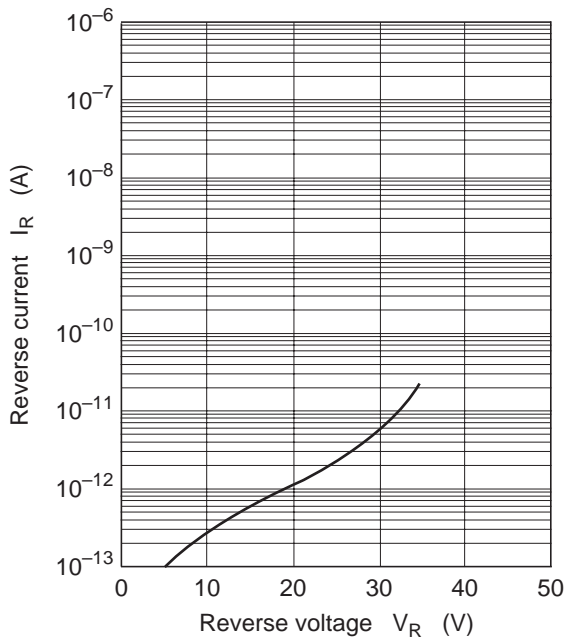
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	—	—	10	nA	$V_R = 32\text{ V}$
	I_{R2}	—	—	100		$V_R = 32\text{ V}, T_a = 60^\circ\text{C}$
Capacitance	C_2	14.15	—	15.75	pF	$V_R = 2\text{ V}, f = 1\text{ MHz}$
	C_{25}	1.89	—	2.18		$V_R = 25\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	6.3	—	—	—	C_2 / C_{25}
Series resistance	r_s	—	—	0.57	Ω	$V_R = 5\text{ V}, f = 470\text{ MHz}$
Matching error	$\Delta C/C^{*1}$	—	—	1.8	%	$V_R = 2\text{ to }25\text{ V}, f = 1\text{ MHz}$

Note: 1. C.C system (Continuous Connected taping system) enable to make any 10 pcs of $\Delta C/C$ continuous in a reel, expect extension to another group.

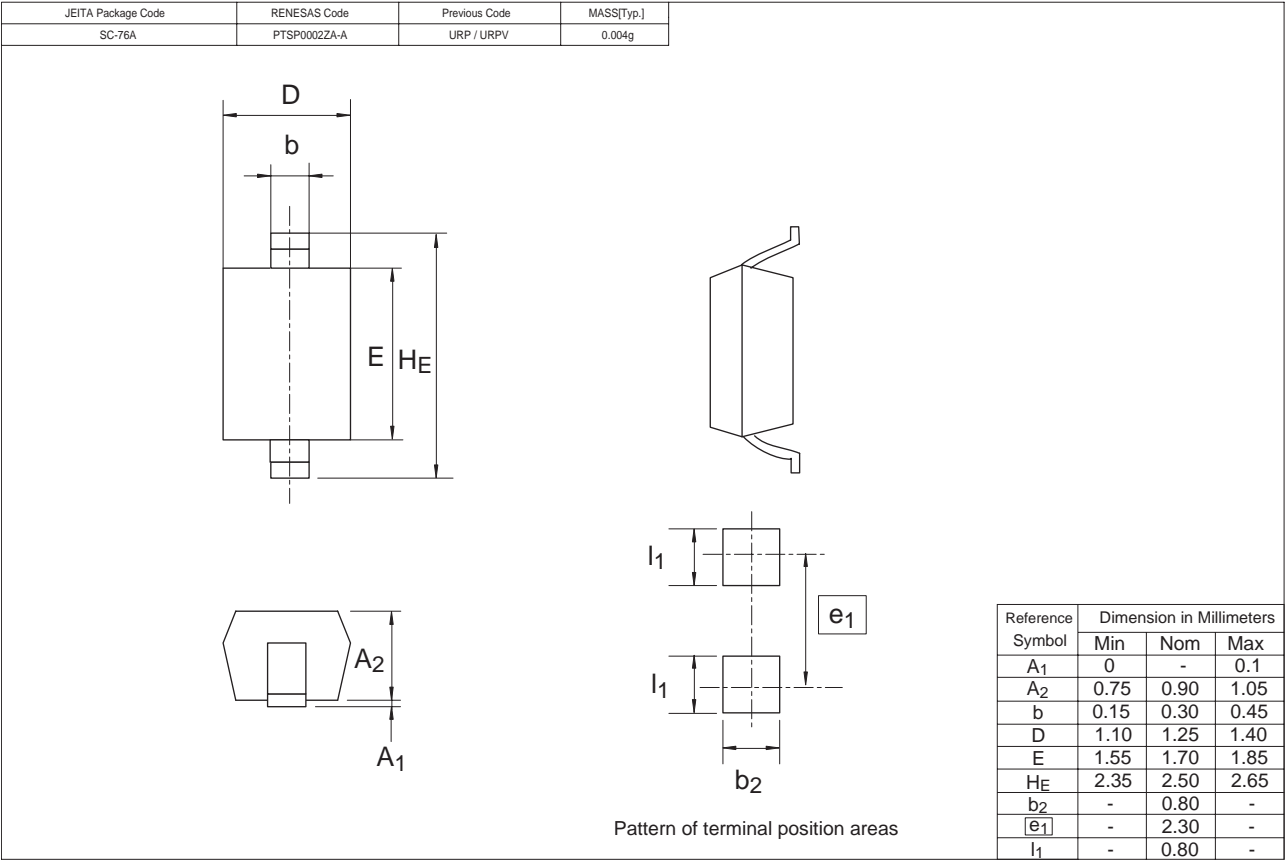
Calculate Matching Error,

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

Main Characteristic



Package Dimensions



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