

## RKV650KP

### Variable Capacitance Diode for Digital audio

REJ03G1288-0200  
Rev.2.00  
Feb 20, 2007

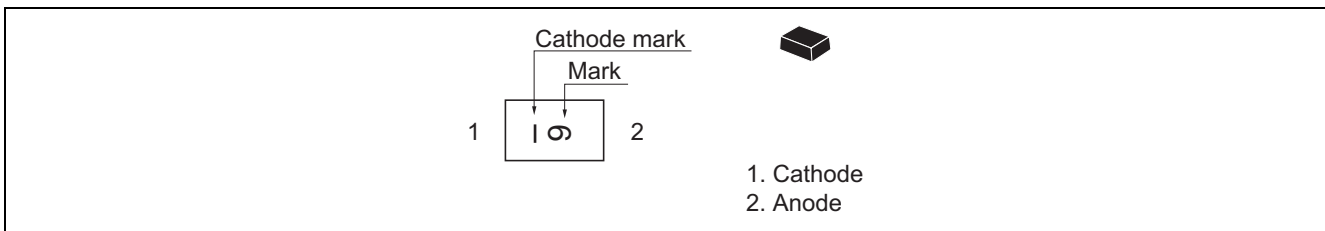
#### Features

- Most suitable for terrestrial digital TV broadcasts capable Mobile phones.
- High capacitance ratio. ( $n = 3.25$  min)
- Low series resistance. ( $r_s = 0.75 \Omega$  max)
- Halogen free, Environmental friendly Package include Conformity to RoHS Directive.
- Ultra small Package (0.6mm×0.3mm Size leadless type)

#### Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKV650KP	9	MP6	PXSN0002ZB-A

#### 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	$C_{0.5}$	7.20	—	7.80	pF	$V_R = 0.5\text{ V}, f = 1\text{ MHz}$
	$C_{2.5}$	2.05	—	2.35		$V_R = 2.5\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	3.25	—	3.70	—	$C_{0.5} / C_{2.5}$
Series resistance	$r_s$	—	—	0.75	$\Omega$	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Note: Please do not use the soldering iron due to avoid high stress to the MP6 package.

Main Characteristic

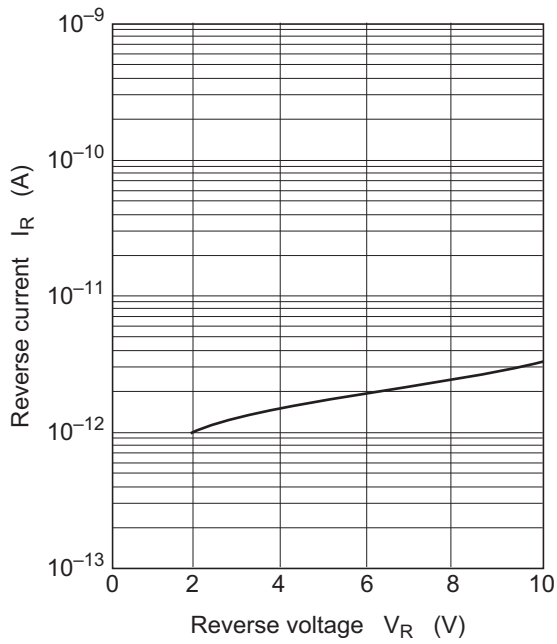


Fig.1 Reverse current vs. Reverse voltage

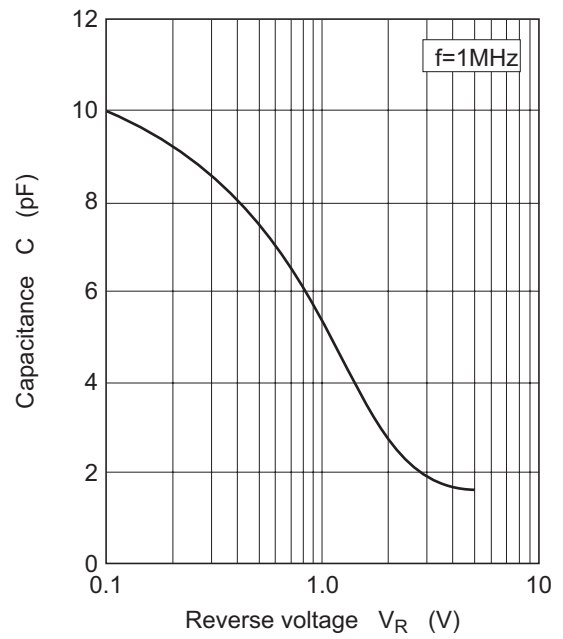


Fig.2 Capacitance vs. Reverse voltage

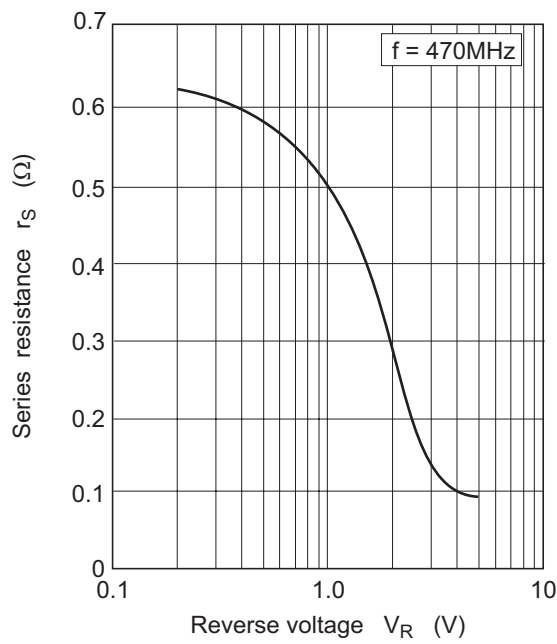
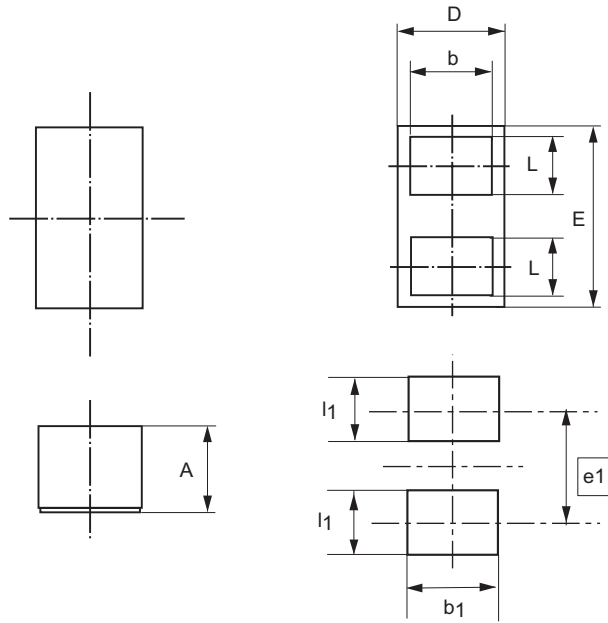


Fig.3 Series resistance vs. Reverse voltage

### Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
MP6	—	PXSN0002ZB-A	MP6V	0.00015g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.27	0.30	0.33
b	0.25	0.27	0.29
D	0.29	0.32	0.35
E	0.59	0.62	0.65
L	0.17	0.19	0.21
b <sub>1</sub>	—	0.31	—
e <sub>1</sub>	—	0.38	—
l <sub>1</sub>	—	0.23	—

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Tel: <82> (2) 796-3115, Fax: <82> (2) 796-2145

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