

# **RKV604KP**

# Variable Capacitance Diode for VCO

REJ03G1364-0200 Rev.2.00 Feb 05, 2007

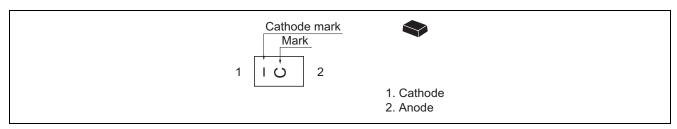
### **Features**

- High capacitance ratio. (n = 1.73 to 2.10)
- Low series resistance. (rs =  $0.70 \Omega \text{ max}$ )
- 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
RKV604KP	С	MP6	PXSN0002ZB-A

## **Pin Arrangement**



# **Absolute Maximum Ratings**

 $(Ta = 25^{\circ}C)$ 

Item	Symbol	Value	Unit
Reverse voltage	V <sub>R</sub>	15	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	−55 to +125	°C

## **Electrical Characteristics**

 $(Ta = 25^{\circ}C)$ 

Item	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse current	I <sub>R1</sub>	_	_	10	nA	V <sub>R</sub> = 15 V
	I <sub>R2</sub>	_	_	50		V <sub>R</sub> = 15 V, Ta = 60°C
Capacitance	C <sub>1</sub>	2.35	_	2.70	pF	V <sub>R</sub> = 1 V, f = 1 MHz
	C <sub>3</sub>	1.22	_	1.42		V <sub>R</sub> = 3 V, f = 1 MHz
Capacitance ratio	n	1.73	_	2.10	_	C <sub>1</sub> /C <sub>3</sub>
Series resistance	r <sub>S</sub>		_	0.70	Ω	V <sub>R</sub> = 1 V, f = 470 MHz

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

### **Main Characteristic**

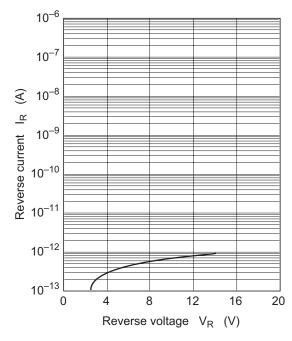
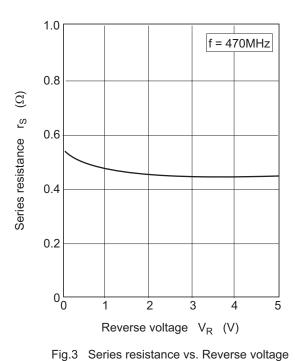


Fig.1 Reverse current vs. Reverse voltage



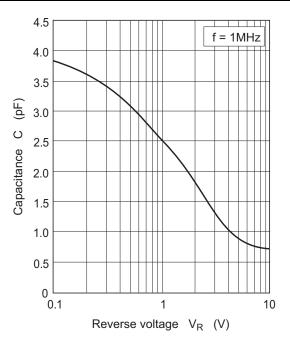
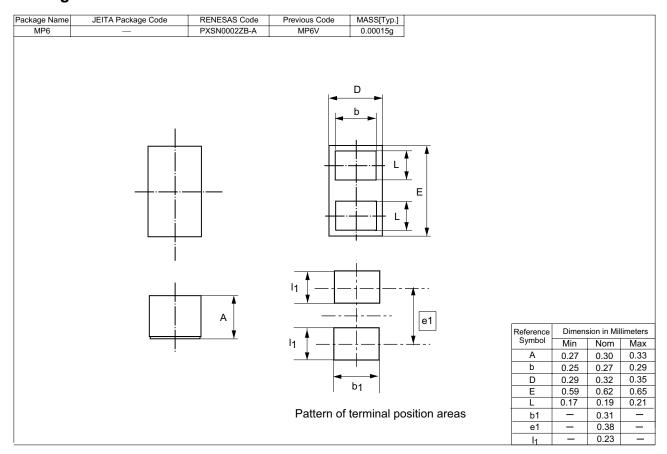


Fig.2 Capacitance vs. Reverse voltage

## **Package Dimensions**



### Renesas Technology Corp. Sales Strategic Planning Div. Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

- Renesas Technology Corp. Sales Strategic Planning Div. Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

  Notes:

  1. This document is provided for reference purposes only so that Renesas customers may select the appropriate Renesas products for their use. Renesas neither makes warranties or representations with respect to the accuracy or completeness of the information in this document nor grants any license to any intellectual property rights or any other rights of Renesas or shy third party with respect to the information in this document.

  2. Renesas shall have no liability for damages or infringement of any intellectual property or other rights arising out of the use of any information in this document, but not limited to, product data, diagrams, algorithms, and application circuit examples.

  3. You should not use the products or the technology described in this document for the purpose of military applications such as the development of weapons of mass and regulations, and procedures required by such laws and regulations and procedures required by such laws and regulations, and procedures required by such laws and regulations. All procedures required by such laws and regulations and procedures required by such laws and regulations and procedures required by such laws and regulations. All procedures required by such laws and regulations and procedures required by such laws and regulations, and procedures required by such laws and regulations, and procedures are such as a result of errors or omissions in the information with a Renesas sales office of the date of



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

RENESAS SALES OFFICES

**Renesas Technology America, Inc.** 450 Holger Way, San Jose, CA 95134-1368, U.S.A Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

Renesas Technology Europe Limited
Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

Renesas Technology (Shanghai) Co., Ltd. Unit 204, 205, AZIACenter, No.1233 Lujiazui Ring Rd, Pudong District, Shanghai, China 200120 Tel: <86> (21) 5877-1818, Fax: <86> (21) 6887-7898

Renesas Technology Hong Kong Ltd.
7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong Tel: <852> 2265-6688, Fax: <852> 2730-6071

Renesas Technology Taiwan Co., Ltd. 10th Floor, No.99, Fushing North Road, Taipei, Taiwan Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

Renesas Technology Singapore Pte. Ltd. 1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632 Tel: <65> 6213-0200, Fax: <65> 6278-8001

Renesas Technology Korea Co., Ltd. Kukje Center Bldg. 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea Tel: <82> (2) 796-3115, Fax: <82> (2) 796-2145

Renesas Technology Malaysia Sdn. Bhd
Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia Tel: <603> 7955-9390, Fax: <603> 7955-9510

-				
-				
-				
-				
-				
-				
-				
-				
-				
-				
-				

http://www.renesas.com