

# RKV603KP

## Variable Capacitance Diode for VCO

REJ03G1362-0200

Rev.2.00

Feb 05, 2007

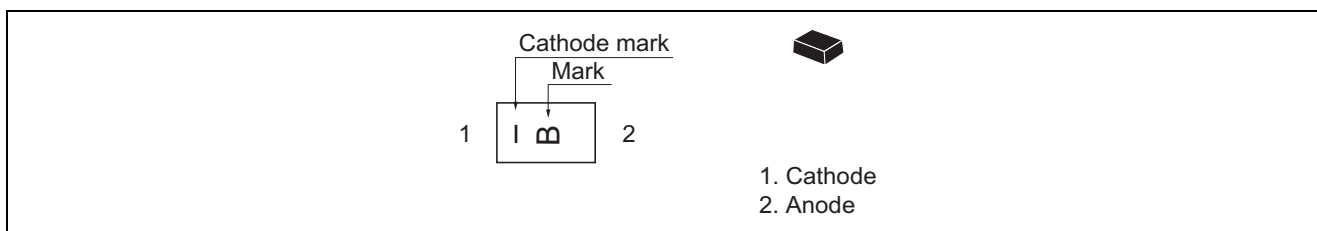
### Features

- High capacitance ratio. ( $n = 2.10$  to  $2.40$ )
- Low series resistance. ( $r_s = 0.75 \Omega$  max)
- Halogen free, Environmental friendly Package include Conformity to RoHS Directive.
- Ultra small Package ( $0.6\text{mm} \times 0.3\text{mm}$  Size leadless type).

### Ordering Information

| Part No. | Laser Mark | Package Name | Package Code |
|----------|------------|--------------|--------------|
| RKV603KP | B          | 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       | $C_{0.5}$ | 7.38 | —   | 7.92 | pF       | $V_R = 0.5\text{ V}$ , $f = 1\text{ MHz}$      |
|                   | $C_{2.5}$ | 3.26 | —   | 3.58 |          | $V_R = 2.5\text{ V}$ , $f = 1\text{ MHz}$      |
| Capacitance ratio | n         | 2.10 | —   | 2.40 | —        | $C_{0.5}/C_{2.5}$                              |
| 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

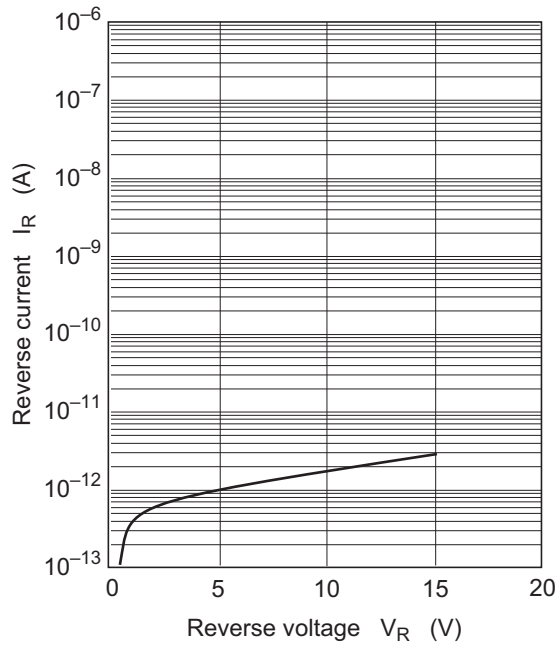


Fig.1 Reverse current vs. Reverse voltage

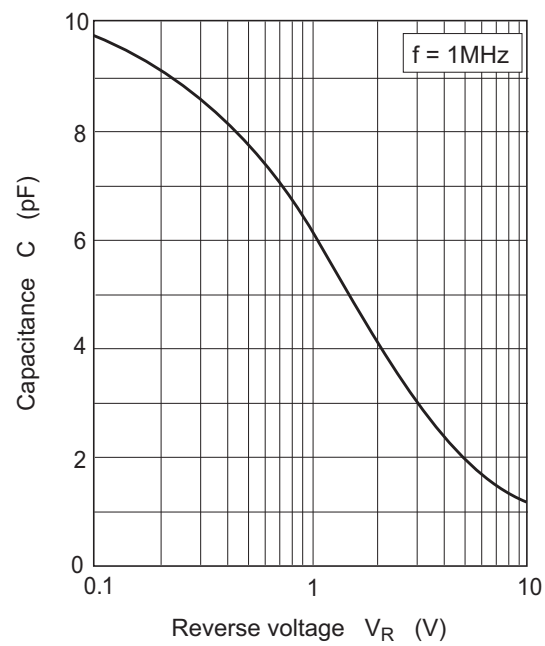


Fig.2 Capacitance vs. Reverse voltage

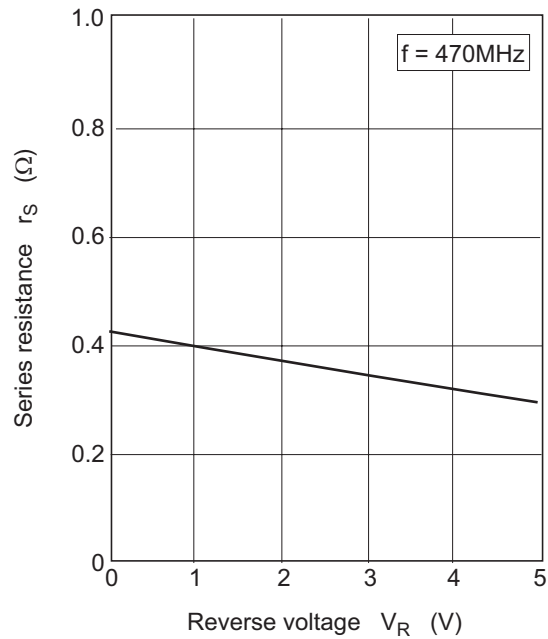
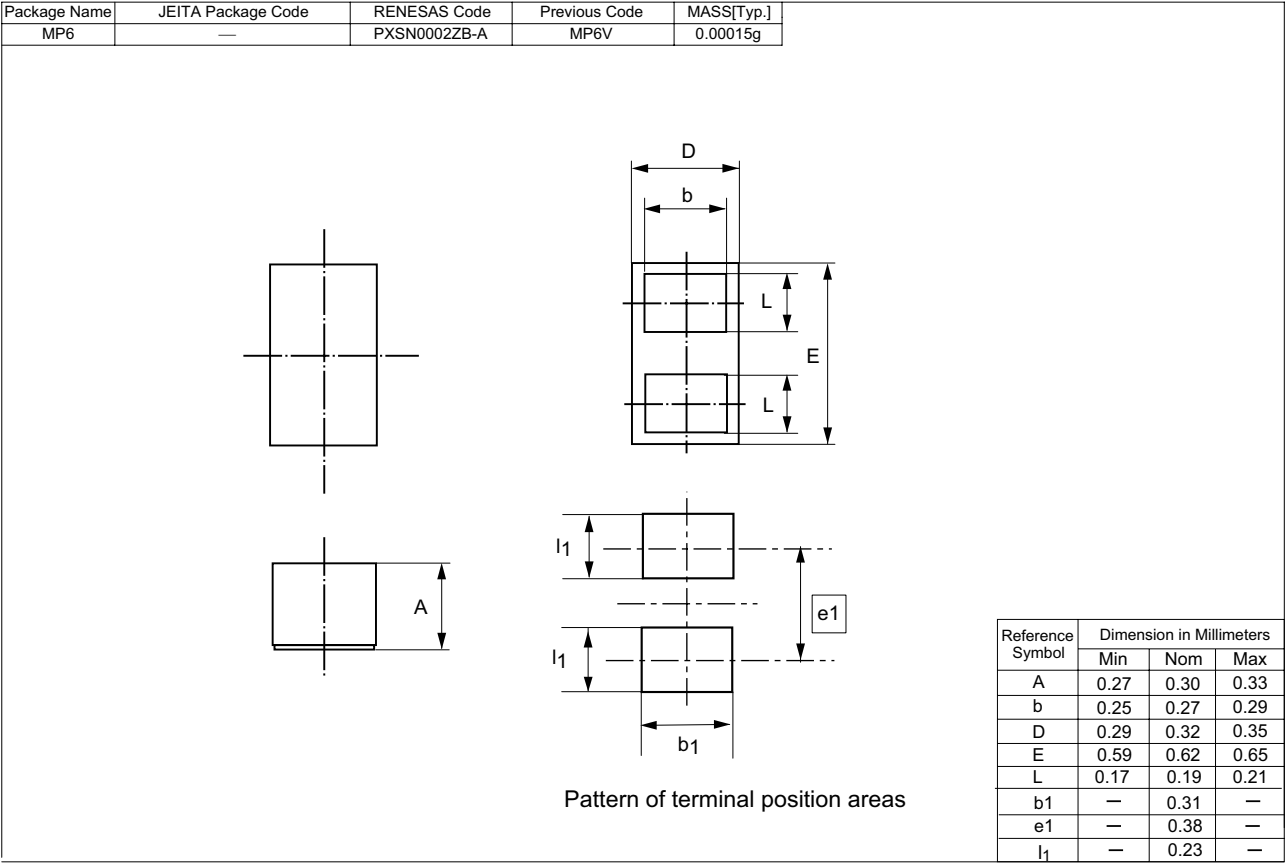


Fig.3 Series resistance vs. Reverse voltage

Package Dimensions



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