

# RKP200KP

## Silicon Epitaxial Planar Pin Diode for Antenna Switching

REJ03G1303-0300

Rev.3.00

Feb 21, 2007

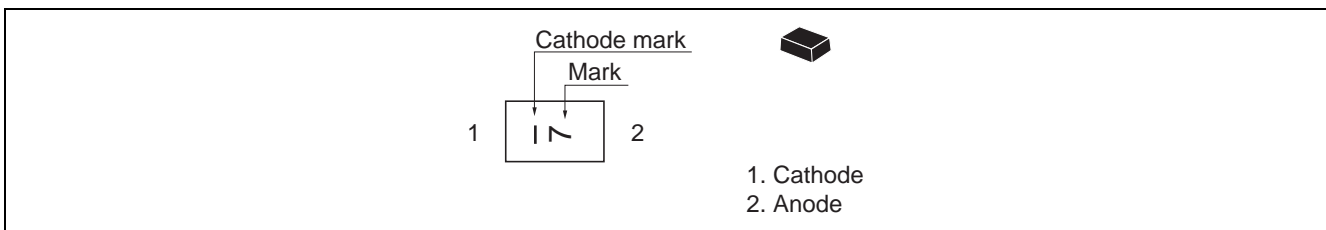
### Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. (C = 0.35 pF max)
- Low forward resistance. (rf = 1.3  $\Omega$  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
RKP200KP	7	MP6	PXSN0002ZB-A

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	30	V
Forward current	$I_F$	100	mA
Power dissipation	$P_d$	100	mW
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
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 10 \text{ mA}$
Reverse current	$I_R$	—	—	100	nA	$V_R = 30 \text{ V}$
Capacitance	$C$	—	—	0.35	pF	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$
Forward resistance	$r_f$	—	—	1.3	$\Omega$	$I_F = 10 \text{ mA}, f = 100 \text{ MHz}$
ESD-Capability *1	—	100	—	—	V	$C = 200 \text{ pF}, R = 0 \Omega$ , Both forward and reverse direction 1 pulse.

Notes: 1. Failure criterion ;  $I_R > 100 \text{ nA}$  at  $V_R = 30 \text{ V}$

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

Main Characteristic

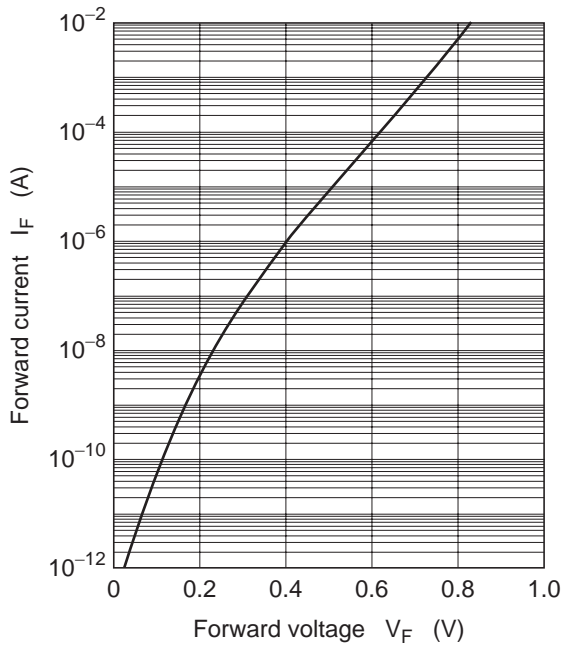


Fig.1 Forward current vs. Forward voltage

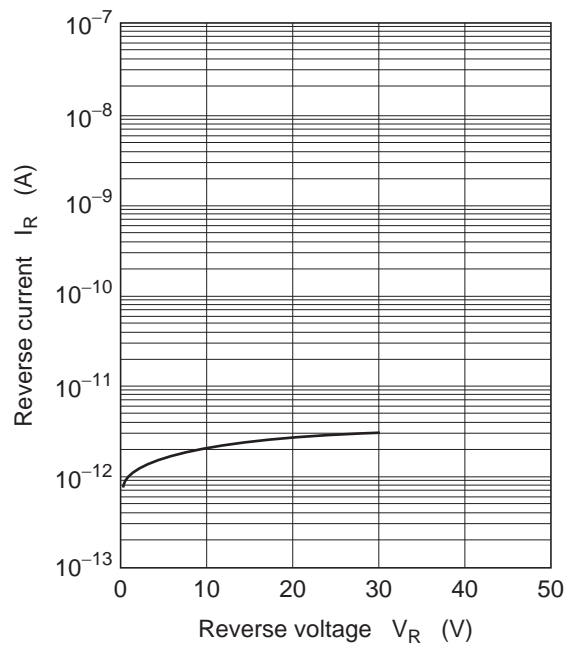


Fig.2 Reverse current vs. Reverse voltage

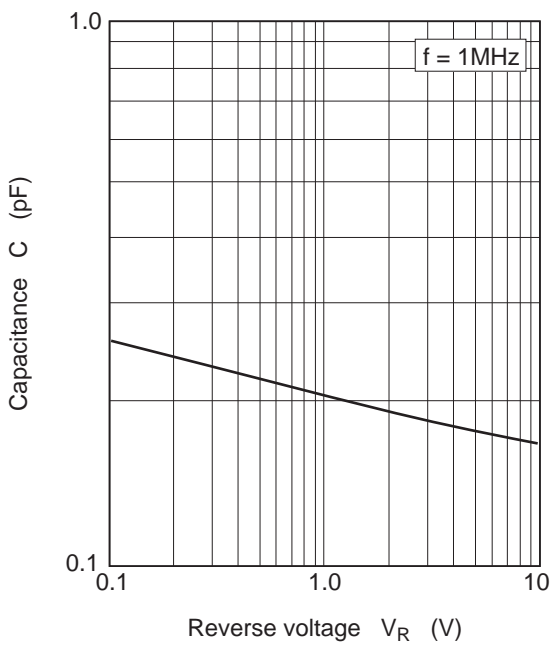


Fig.3 Capacitance vs. Reverse voltage

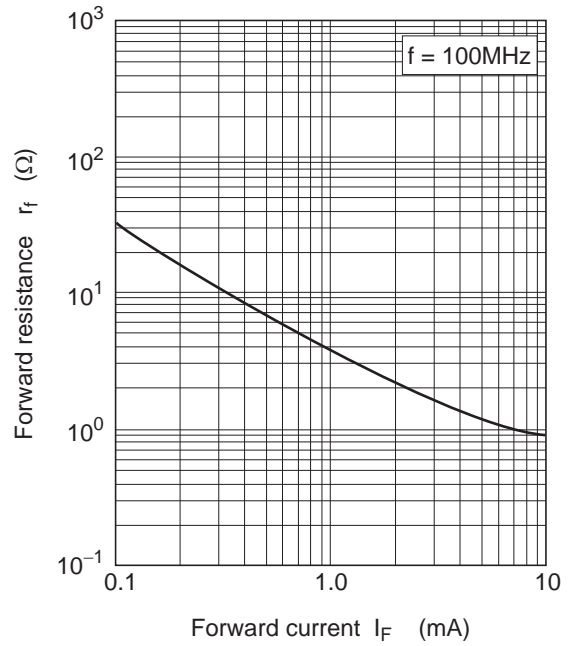
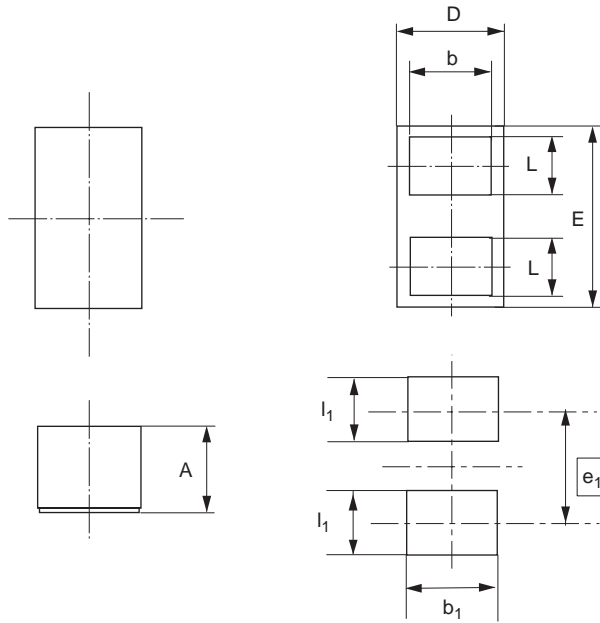


Fig.4 Forward resistance vs. Forward current

## 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	—

Notes:

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