

To our customers,

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## Old Company Name in Catalogs and Other Documents

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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Not recommended  
for new design

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# RKP200KN

## Silicon Epitaxial Planar Pin Diode for Antenna Switching

REJ03G1302-0200  
Rev.2.00  
Feb 14, 2006

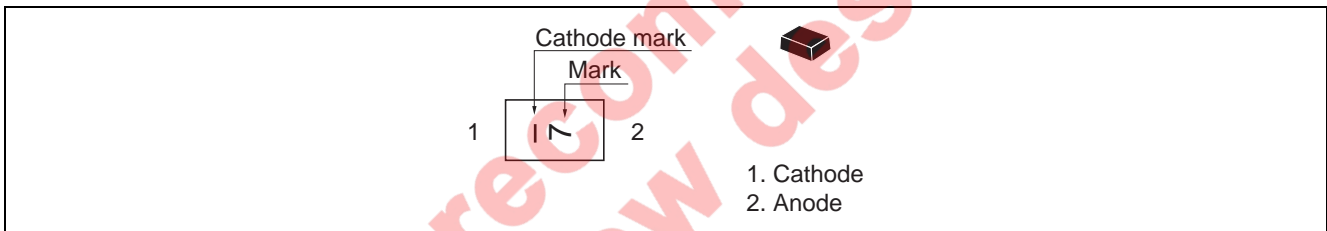
### Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ( $C = 0.35 \text{ pF max}$ )
- Low forward resistance. ( $r_f = 1.3 \Omega \text{ max}$ )
- Ultra small leadless Package (0805type; the use of an undersurface electrode structure) for use in compact and products.

### Ordering Information

Type No.	Laser Mark	Package Name	Package Code
RKP200KN	7	MP8	PXSN0002ZA-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 MP8 package.

Not recommended for new design

Main Characteristic

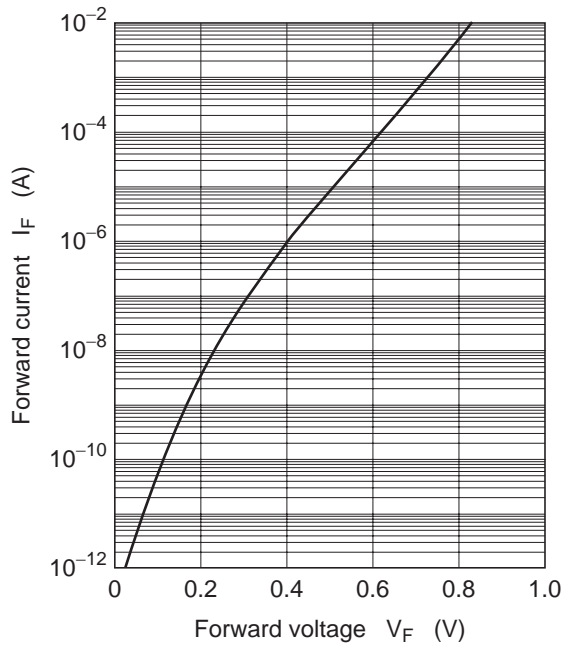


Fig.1 Forward current vs. Forward voltage

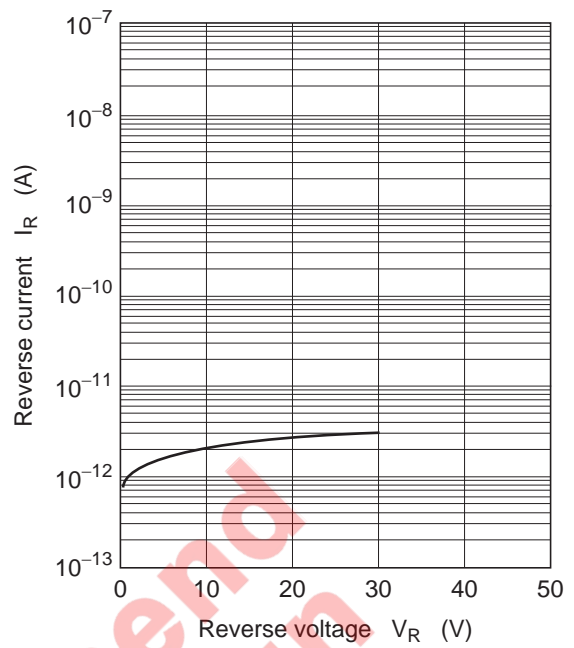


Fig.2 Reverse current vs. Reverse voltage

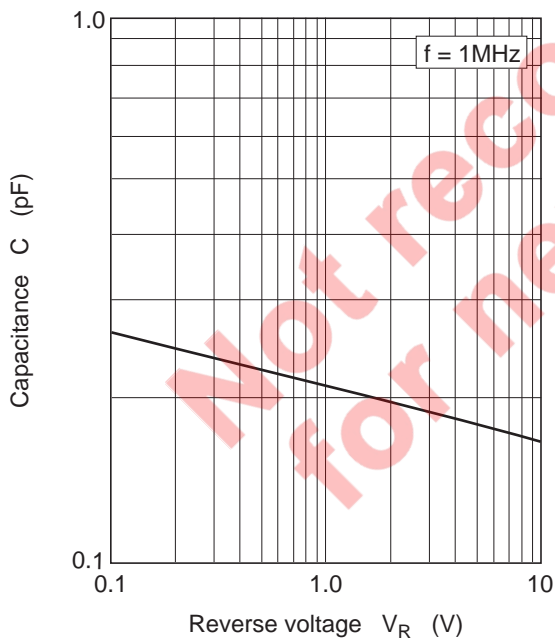


Fig.3 Capacitance vs. Reverse voltage

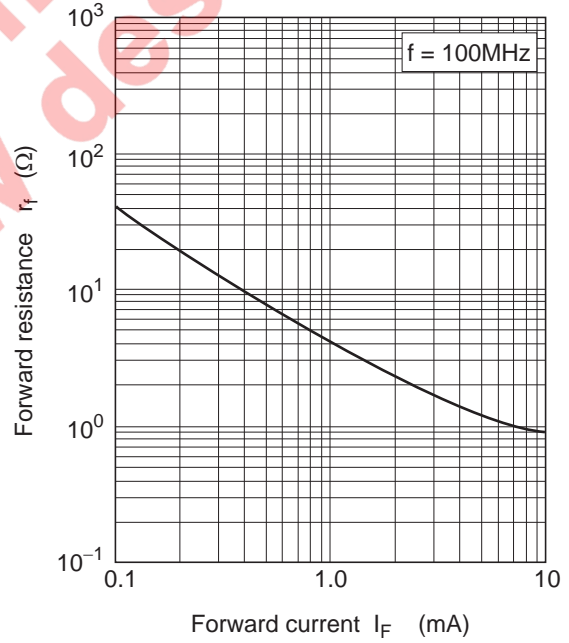
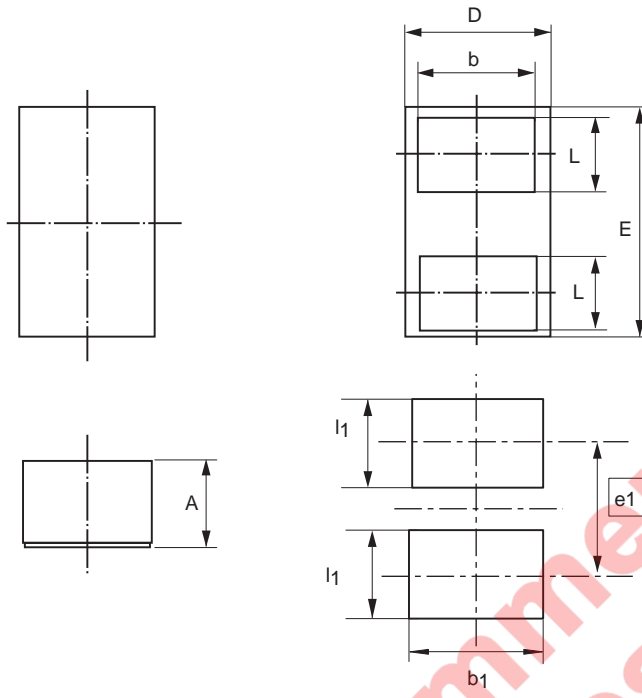


Fig.4 Forward resistance vs. Forward current

### Package Dimensions

Package Name MP8	JEITA Package Code —	RENESAS Code PXSN0002ZA-A	Previous Code MP8V	MASS[Typ.] 0.00029g
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Under development



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.27	0.30	0.33
b	0.38	0.40	0.42
D	0.47	0.50	0.53
E	0.77	0.80	0.83
L	0.23	0.25	0.27
b1	—	0.45	—
e1	—	0.45	—
l1	—	0.3	—

Not recommended for new design

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