

# RKP202KN

## Silicon Epitaxial Trench Pin Diode for Antenna Switching

REJ03G1312-0100

Rev.1.00

Dec 16, 2005

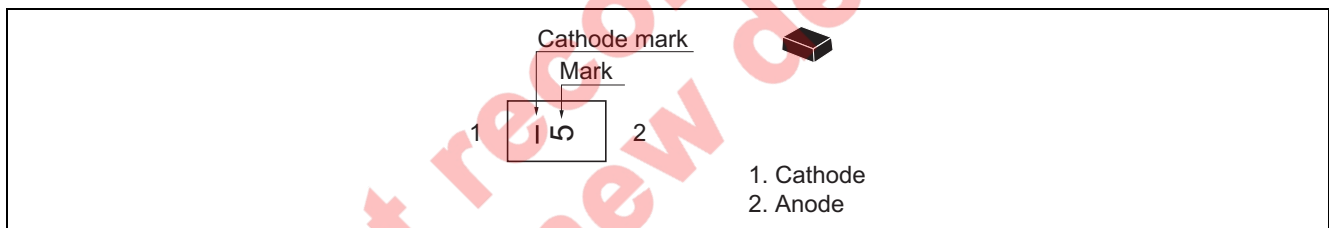
### Features

- Adopting the trench structure improves low capacitance. ( $C = 0.43 \text{ pF max}$ )
- Low forward resistance. ( $r_f = 1.80 \Omega \text{ max}$ )
- Low operation current.
- 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 (Previous Code)
RKP202KN	5	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
Reverse current	$I_R$	—	—	100	nA	$V_R = 30\text{ V}$
Forward voltage	$V_F$	—	—	0.90	V	$I_F = 2\text{ mA}$
Capacitance	$C$	—	—	0.43	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
Forward resistance	$r_f$	—	—	1.80	$\Omega$	$I_F = 2\text{ mA}, f = 100\text{ MHz}$
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 designs

Main Characteristic

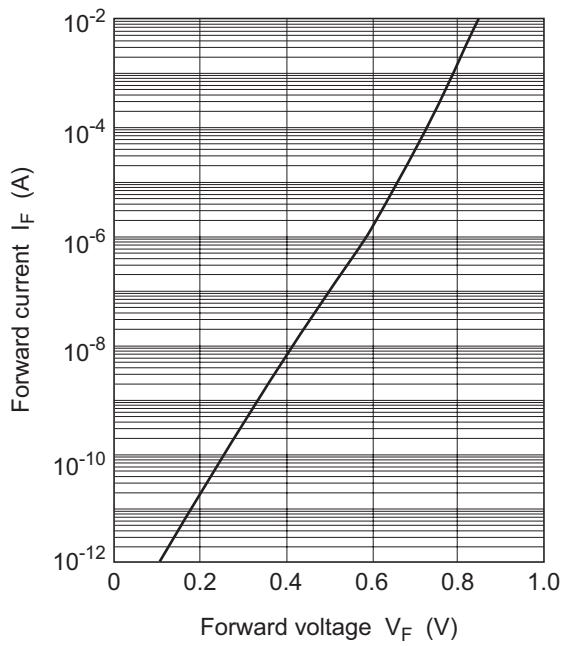


Fig.1 Forward current vs. Forward voltage

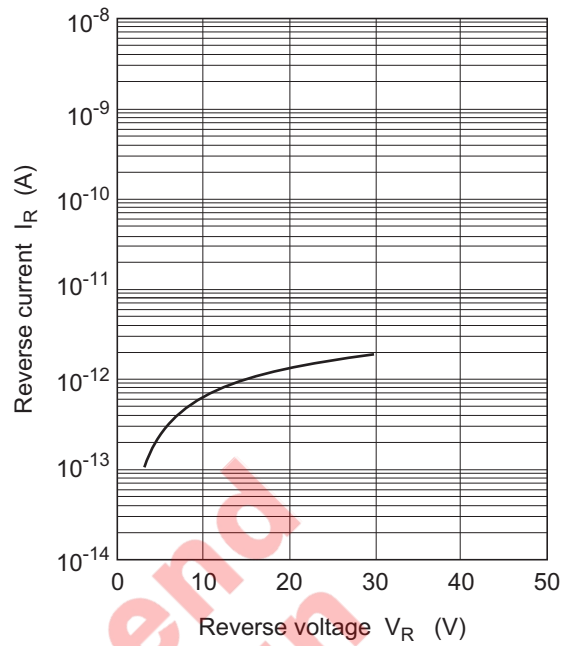


Fig.2 Reverse current vs. Reverse voltage

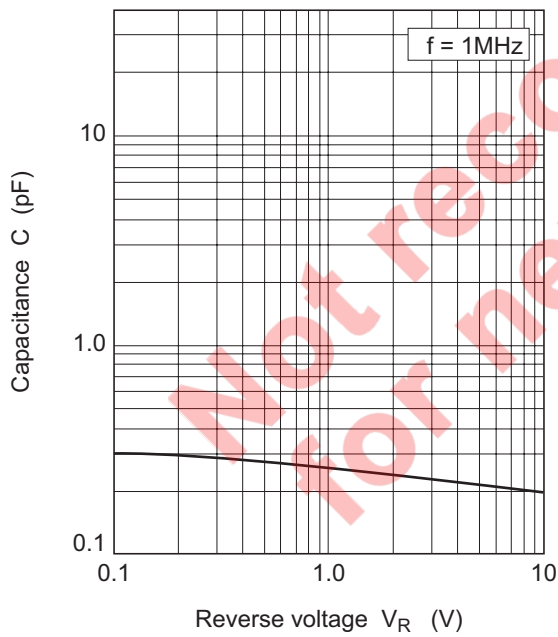


Fig.3 Capacitance vs. Reverse voltage

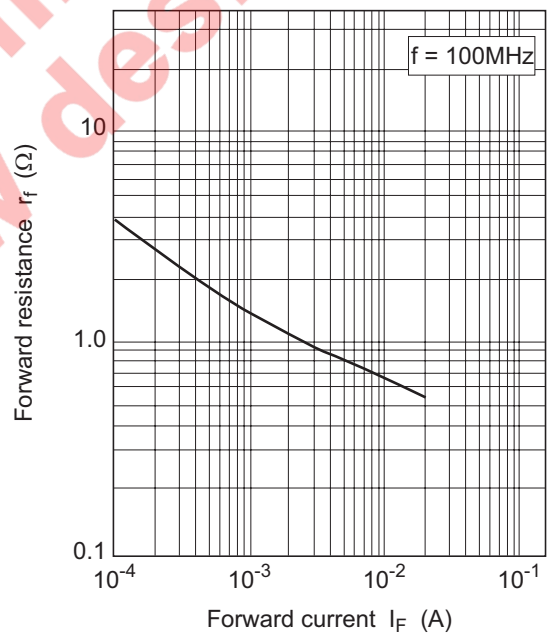
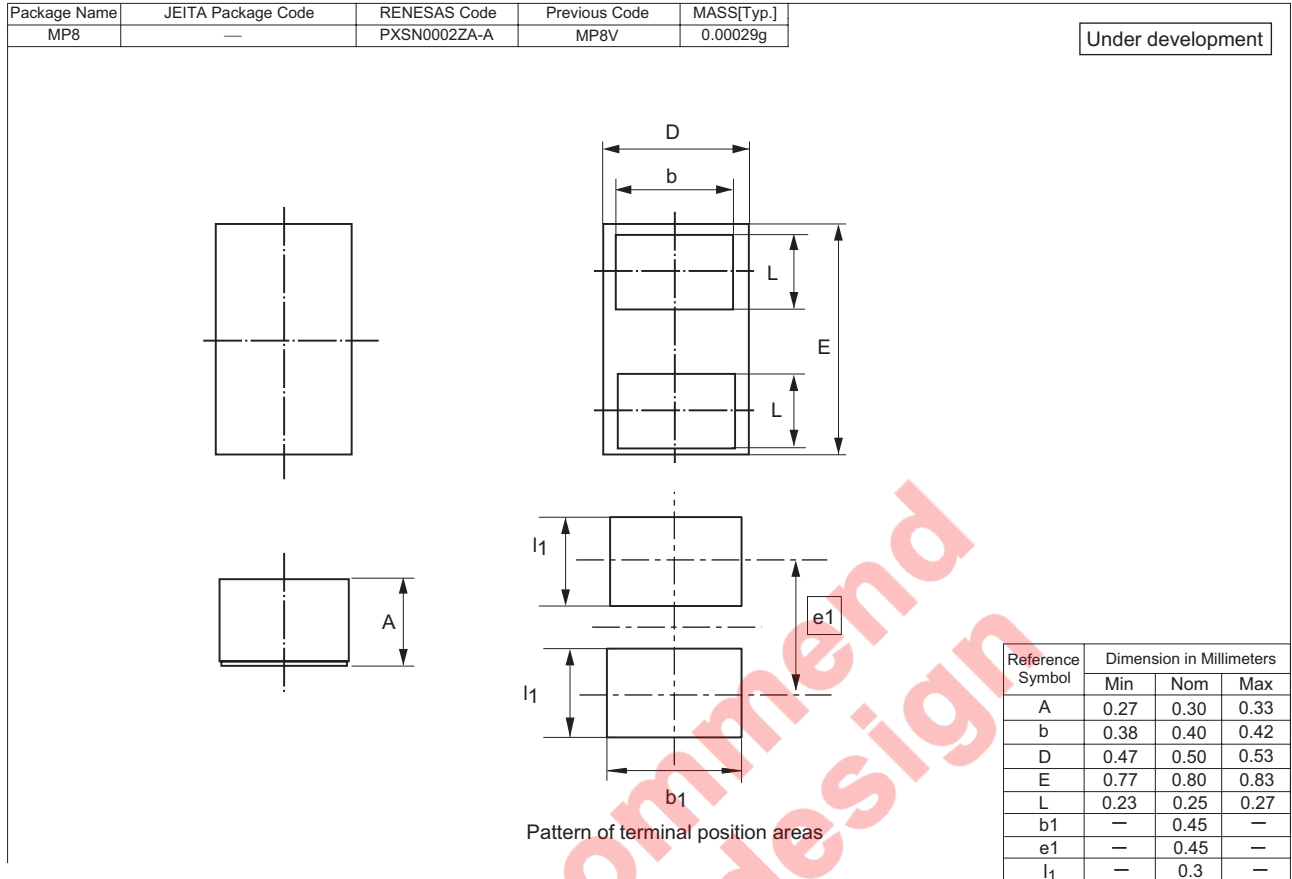


Fig.4 Forward resistance vs. Forward current

### Package Dimensions



Not recommended for new design

Keep safety first in your circuit designs!

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