

# RKP452KE

## Ultra small Package Composite Pin Diode for Antenna Switching

REJ03G1695-0100

Rev.1.00

Jun 05, 2008

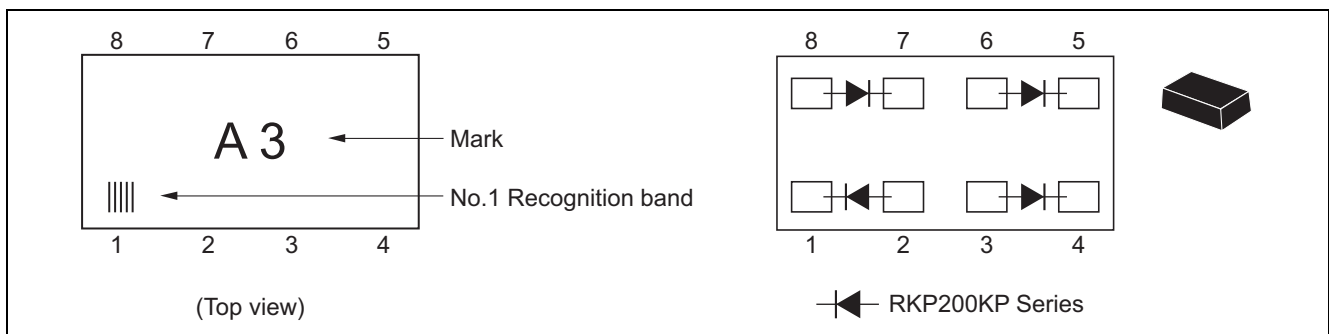
### Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ( $C = 0.35 \text{ pF max}$ )
- Low forward resistance. ( $r_f = 1.3 \Omega \text{ max}$ )
- Halogen free, Environmental friendly Package include Conformity to RoHS Directive.
- Ultra small Package ( $1.63 \text{ mm} \times 0.67 \text{ mm}$  Size leadless type) of diode array with four same kind of elements.

### Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKP452KE	A3	MP6-8	PXSN0008ZA-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	$P_d^{*1}$	100	mW
Power dissipation	$P_d^{*2}$	200	mW
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

Notes: 1. Per one device.

2. Value at Package total.

## 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 <sup>*1</sup>	—	100	—	—	V	C = 200 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 MP6-8 package.

Main Characteristic

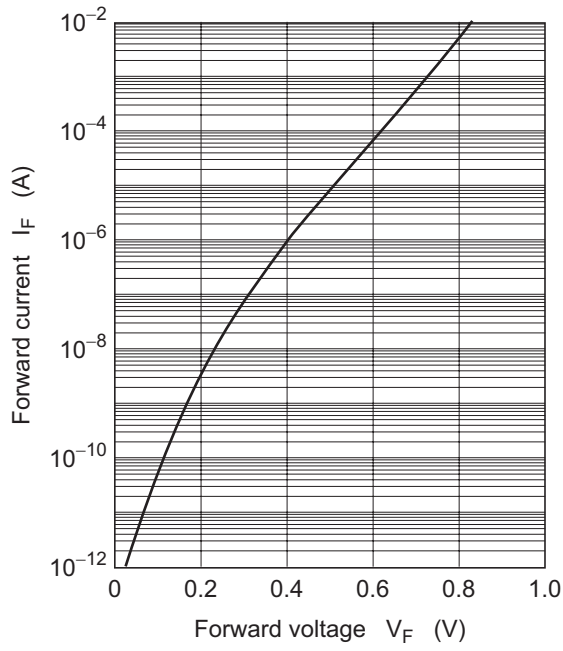


Fig.1 Forward current vs. Forward voltage

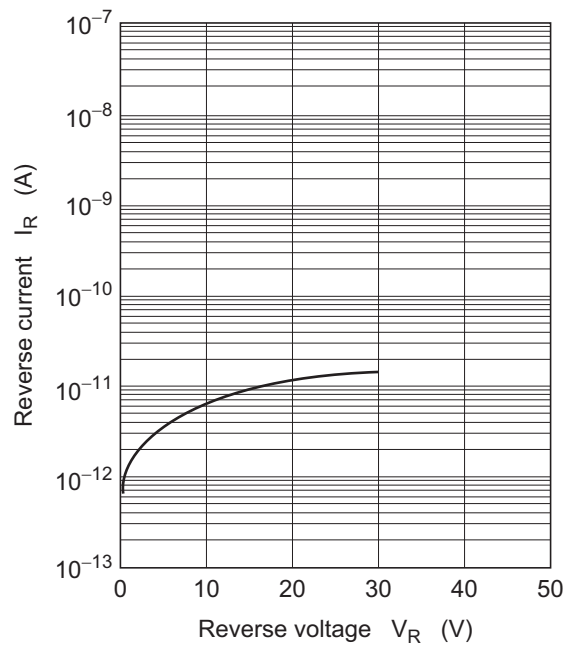


Fig.2 Reverse current vs. Reverse voltage

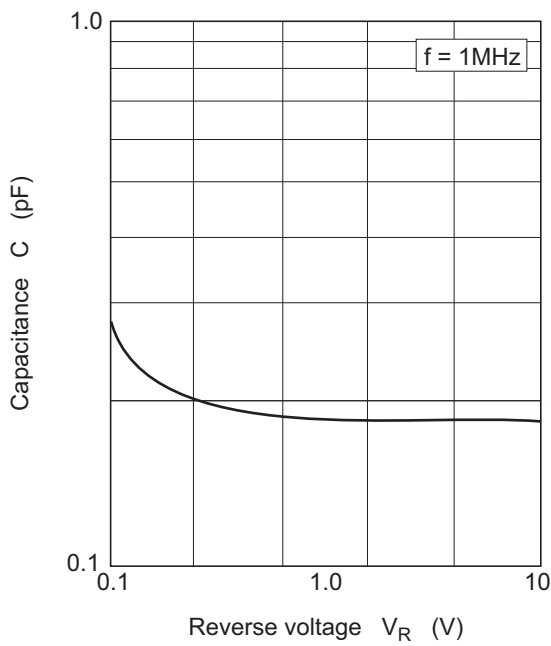


Fig.3 Capacitance vs. Reverse voltage

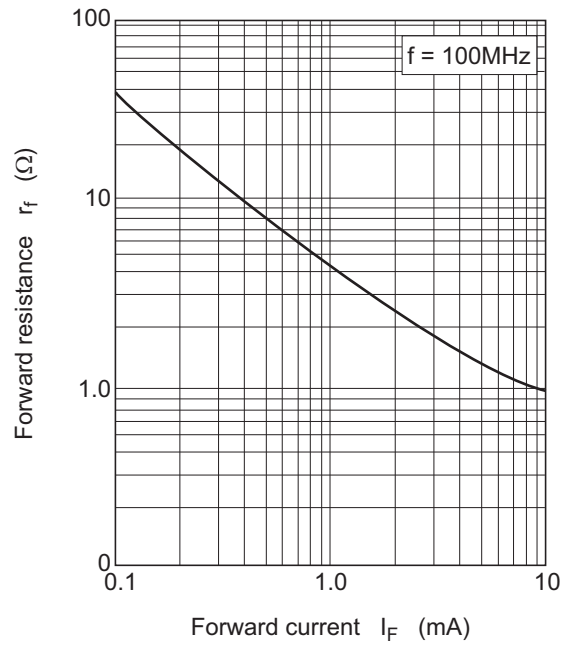


Fig.4 Forward resistance vs. Forward current

## Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
MP6-8	—	PXSN0008ZA-A	MP6-8V	0.0008 g

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.27	0.30	0.33
b	0.25	0.27	0.29
D	1.60	1.63	1.66
E	0.64	0.67	0.70
e	—	0.42	—
e1	—	0.38	—
L	0.17	0.19	0.21
b1	—	0.27	—
e2	—	0.42	—
e3	—	0.38	—
l1	—	0.19	—

Notes:

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