

# RKP451KE

## Ultra small Package Composite Pin Diode for Antenna Switching

REJ03G1694-0100

Rev.1.00

Jun 05, 2008

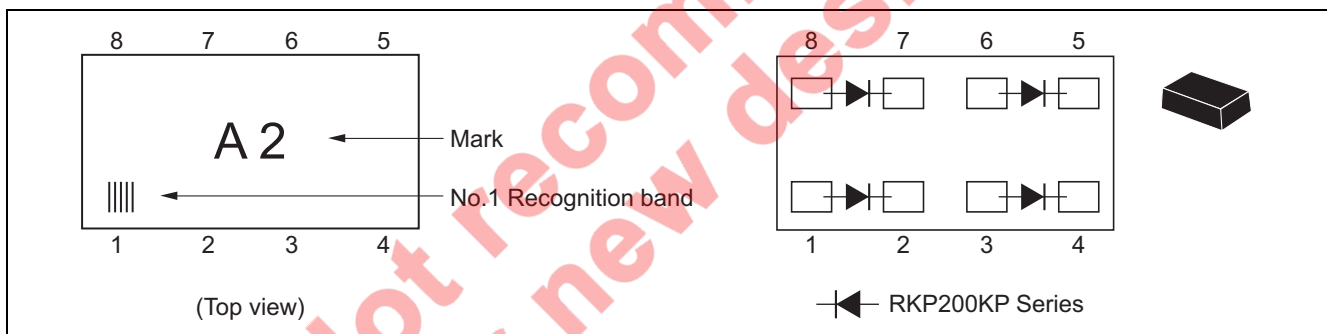
### Features

- 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
RKP451KE	A2	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.

Not recommended  
for new designs

Main Characteristic

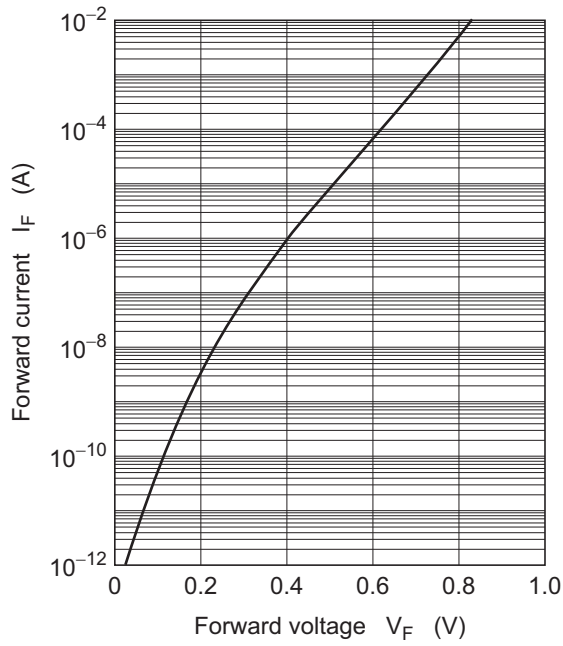


Fig.1 Forward current vs. Forward voltage

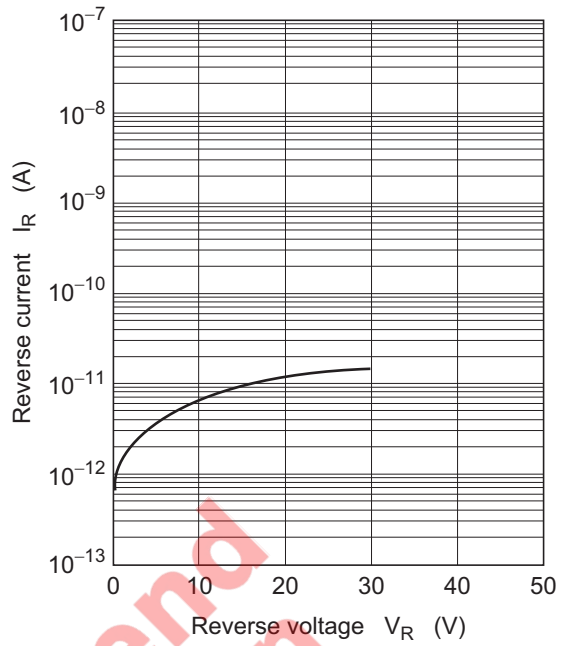


Fig.2 Reverse current vs. Reverse voltage

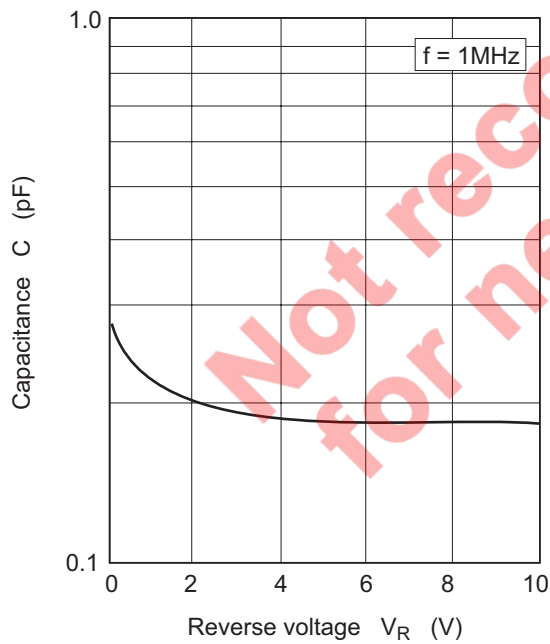


Fig.3 Capacitance vs. Reverse voltage

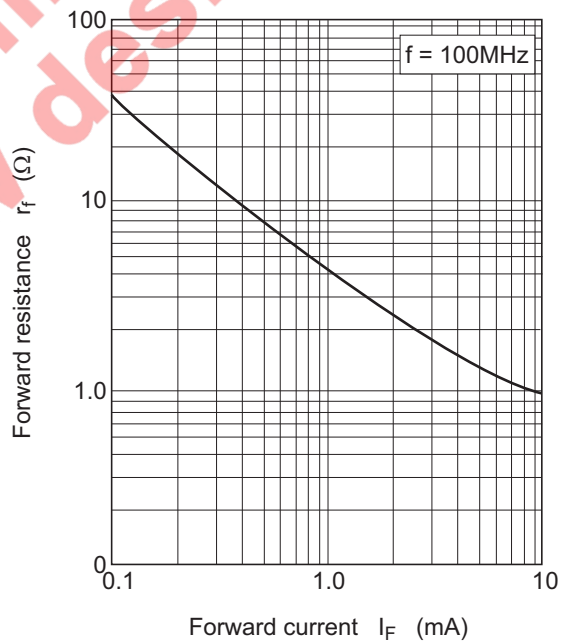
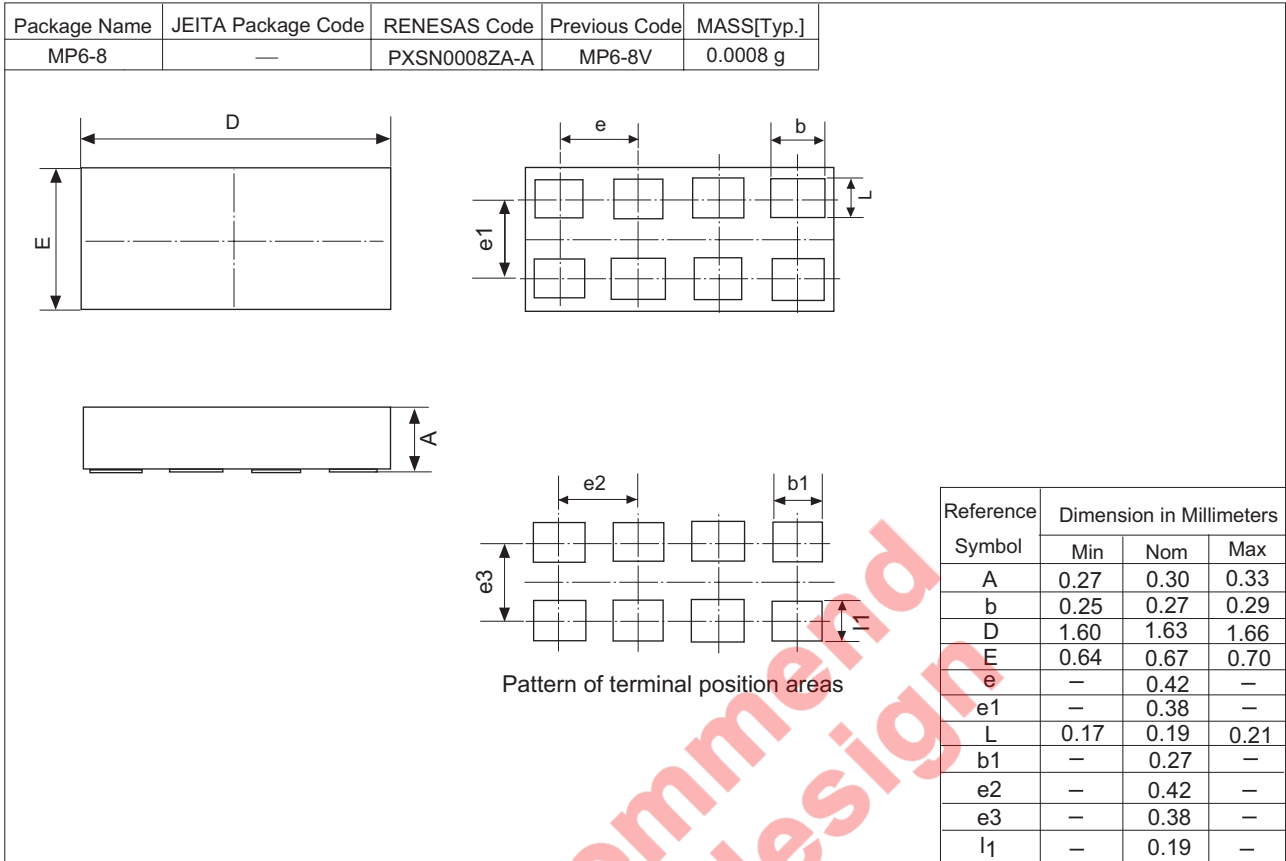


Fig.4 Forward resistance vs. Forward current

Package Dimensions



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