

# RKP403KS

## Composite Pin Diode for Antenna Switching

REJ03G1347-0200  
Rev.2.00  
Jul 03, 2006

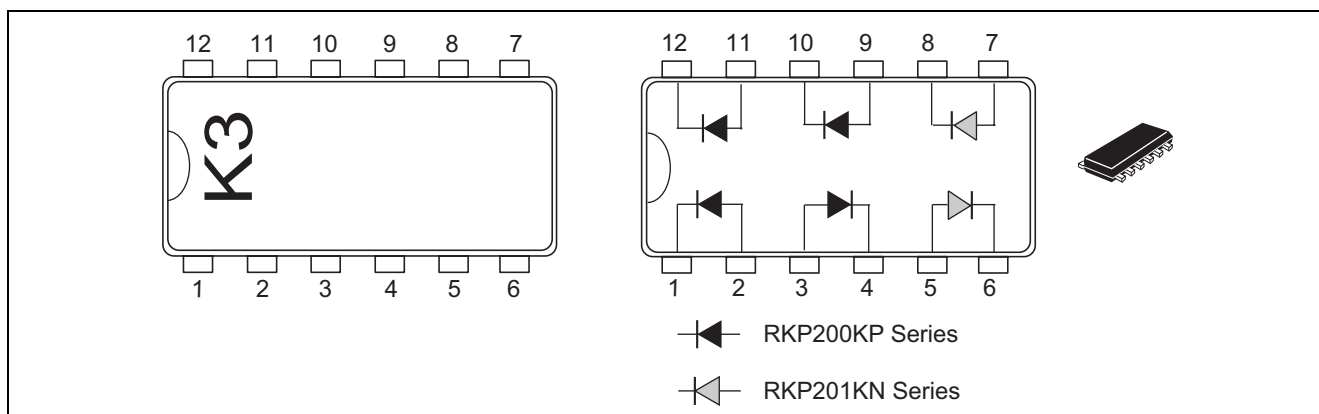
### Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ( $C = 0.35 \text{ pF max}$ )
- Low forward resistance. ( $r_f = 2.0 \Omega \text{ max @ } I_F = 2 \text{ mA, } f = 100 \text{ MHz}$ )
- Thin outline of diode array with six different kind elements (MFP12) is suitable for surface mount design.

### Ordering Information

Type No.	Laser Mark	Package Name	Package Code
RKP403KS	K3	MFP12	PUSF0012ZA-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

Note: Per one device

## Electrical Characteristics (RKP200KP Series)

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_R$	—	—	100	nA	$V_R = 30$ V
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 10$ mA
Capacitance	C	—	—	0.35	pF	$V_R = 1$ V, $f = 1$ MHz
Forward resistance	$r_f$	—	—	1.3	$\Omega$	$I_F = 10$ mA, $f = 100$ MHz
ESD-Capability *1	—	100	—	—	V	C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse.

## Electrical Characteristics (RKP201KN Series)

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_R$	—	—	100	nA	$V_R = 30$ V
Forward voltage	$V_F$	—	—	0.9	V	$I_F = 2$ mA
Capacitance	C	—	—	0.35	pF	$V_R = 1$ V, $f = 1$ MHz
Forward resistance	$r_f$	—	—	2.0	$\Omega$	$I_F = 2$ mA, $f = 100$ MHz
ESD-Capability *1	—	100	—	—	V	C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse.

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

2. For MFP12 package, the material of lead is exposed for cutting plane. There for, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

Main Characteristic (RKP200KP Series)

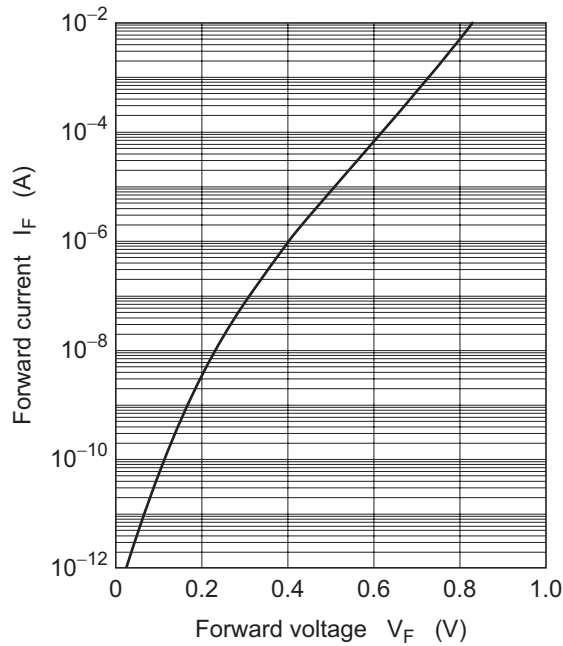


Fig.1 Forward current vs. Forward voltage

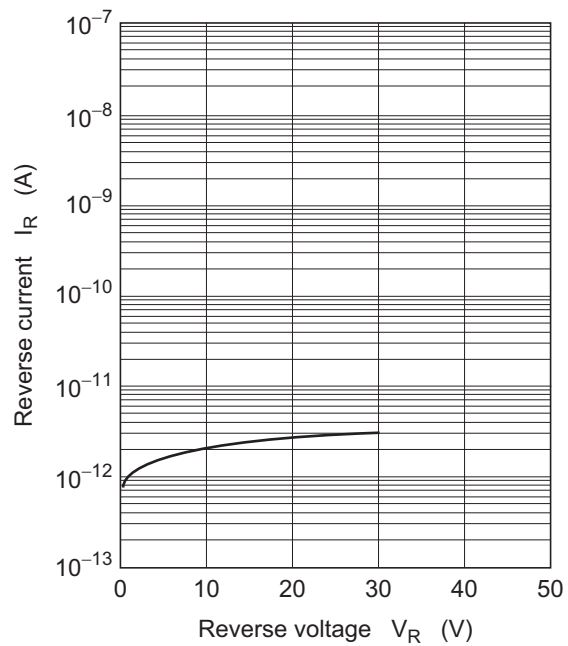


Fig.2 Reverse current vs. Reverse voltage

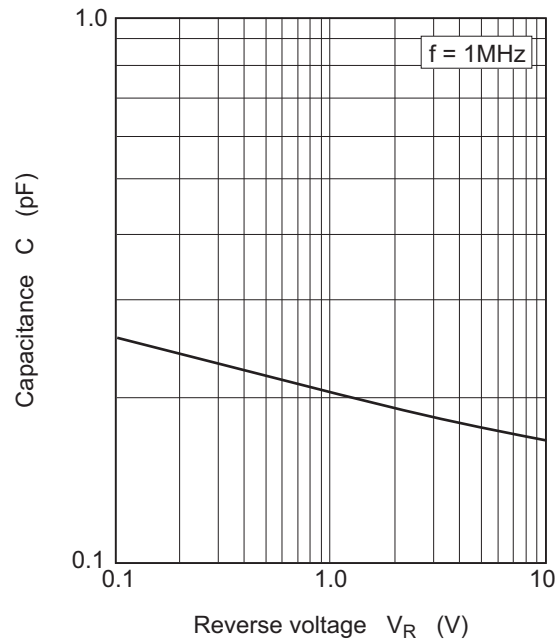


Fig.3 Capacitance vs. Reverse voltage

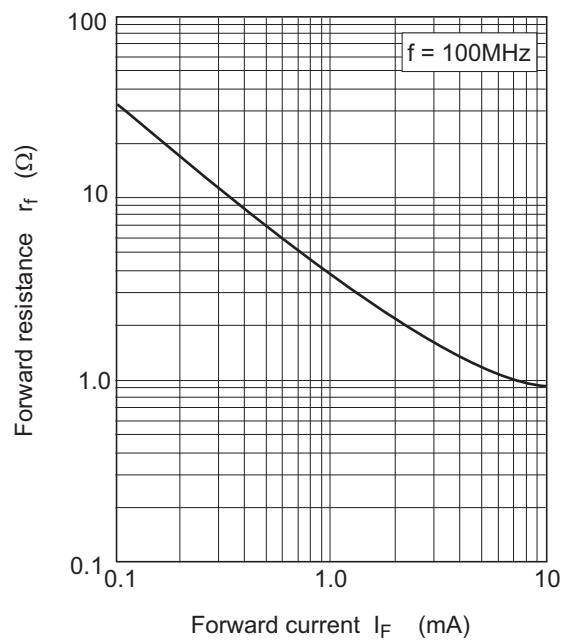


Fig.4 Forward resistance vs. Forward current

## Main Characteristic (RKP201KN Series)

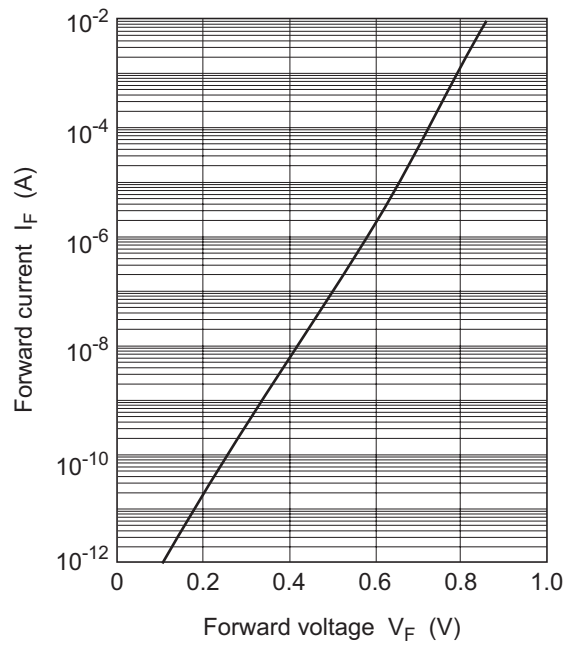


Fig.1 Forward current vs. Forward voltage

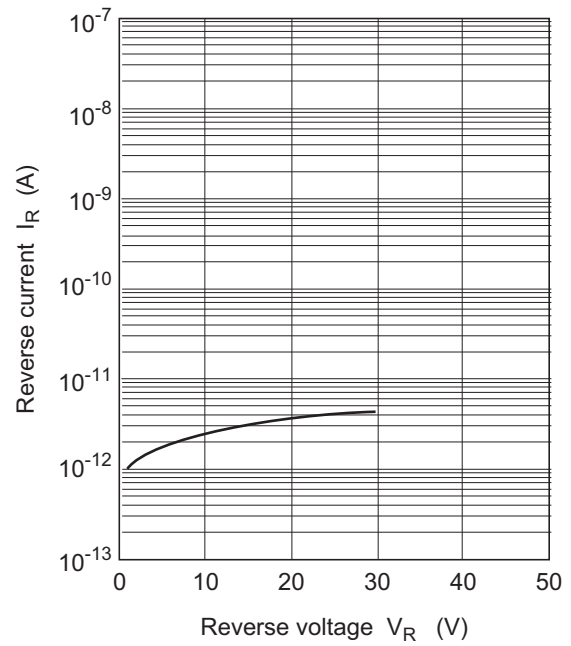


Fig.2 Reverse current vs. Reverse voltage

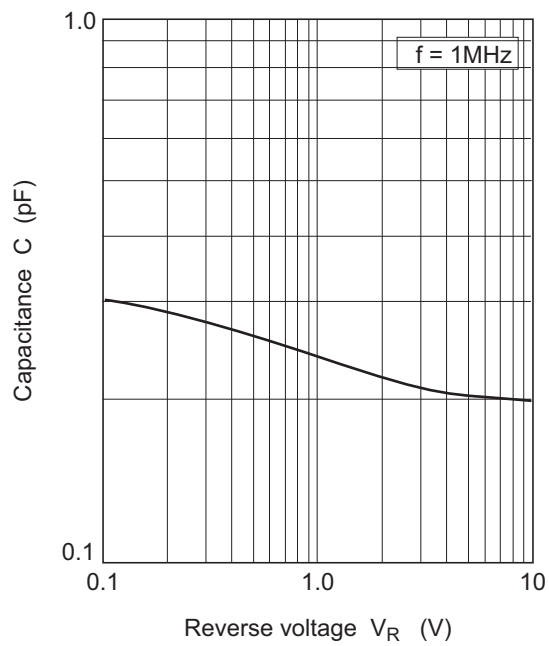


Fig.3 Capacitance vs. Reverse voltage

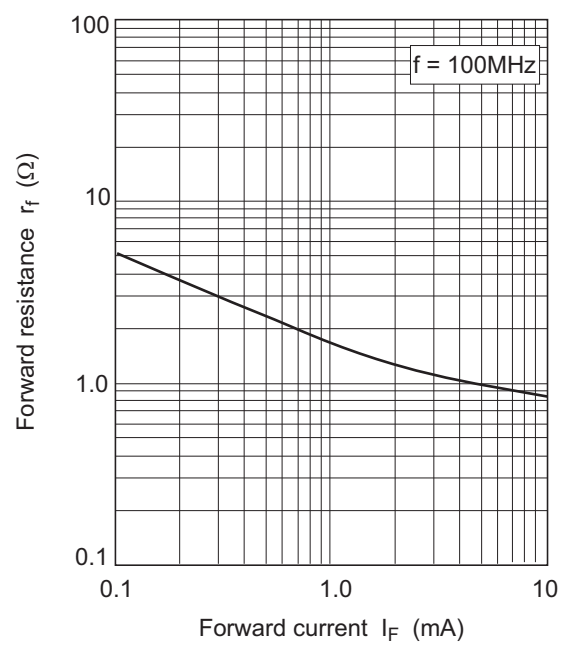
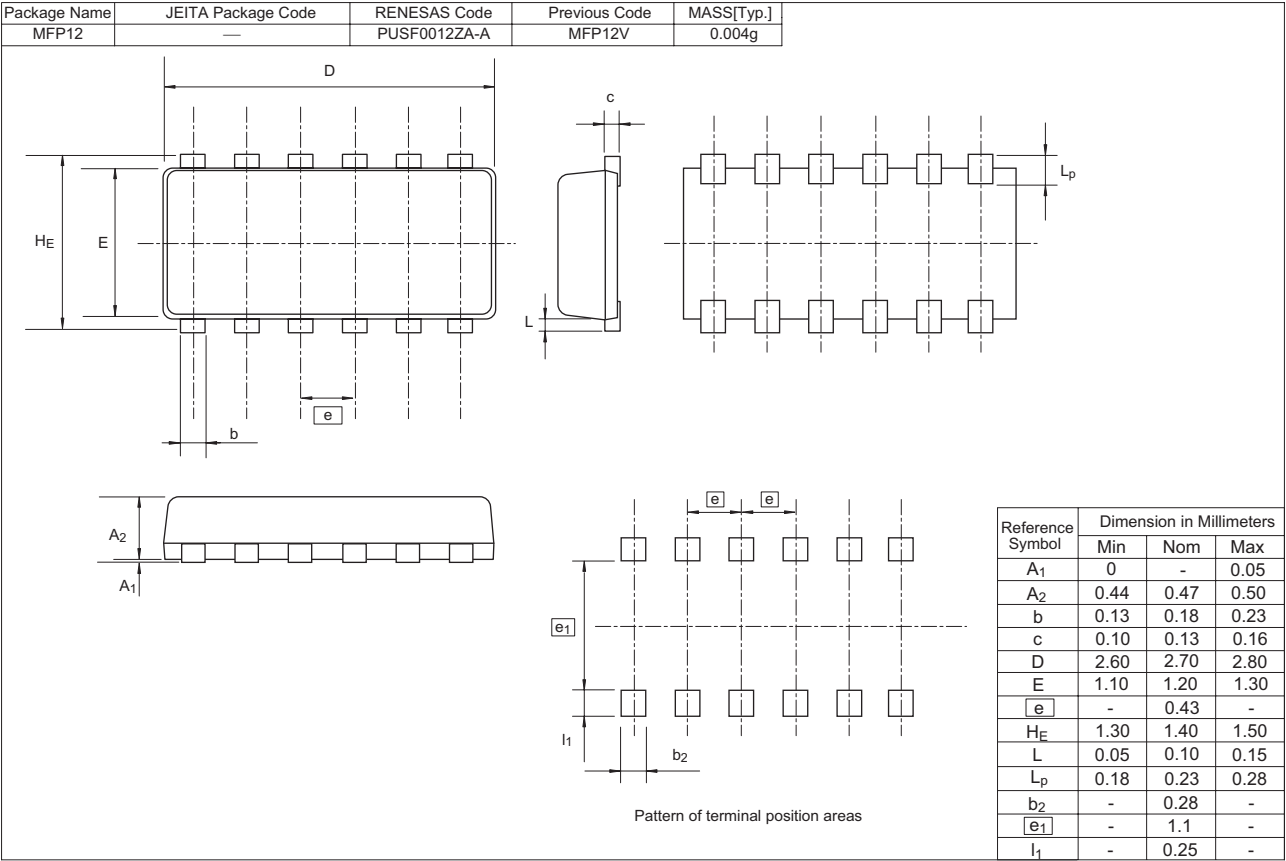


Fig.4 Forward resistance vs. Forward current

Package Dimensions



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Tel: <82> (2) 796-3115, Fax: <82> (2) 796-2145

### **Renesas Technology Malaysia Sdn. Bhd**

Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia  
Tel: <603> 7955-9390, Fax: <603> 7955-9510