

# RKP412KS

## Composite Pin Diode for Antenna Switching

REJ03G1578-0100  
Rev.1.00  
Sep 06, 2007

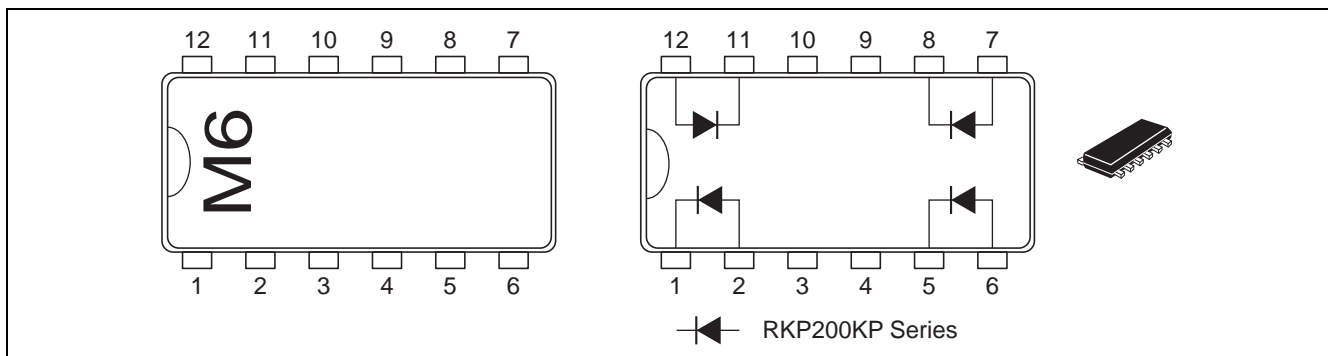
### Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ( $C = 0.35 \text{ pF max}$ )
- Low forward resistance. ( $r_f = 1.3 \Omega \text{ max @ } I_F = 10 \text{ mA, } f = 100 \text{ MHz}$ )
- Thin outline of diode with four same kind of elements (MFP12) is suitable for surface mount design.

### Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKP412KS	M6	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

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_R$	—	—	100	nA	$V_R = 30\text{ V}$
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 10\text{ mA}$
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 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. 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 Characteristics

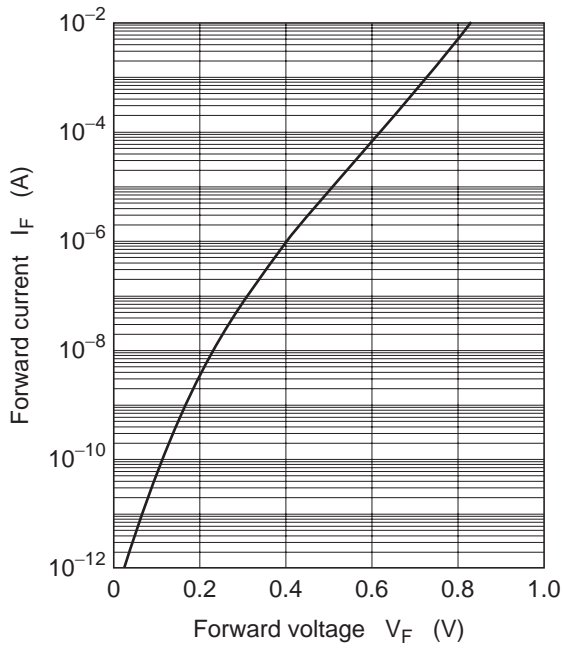


Fig.1 Forward current vs. Forward voltage

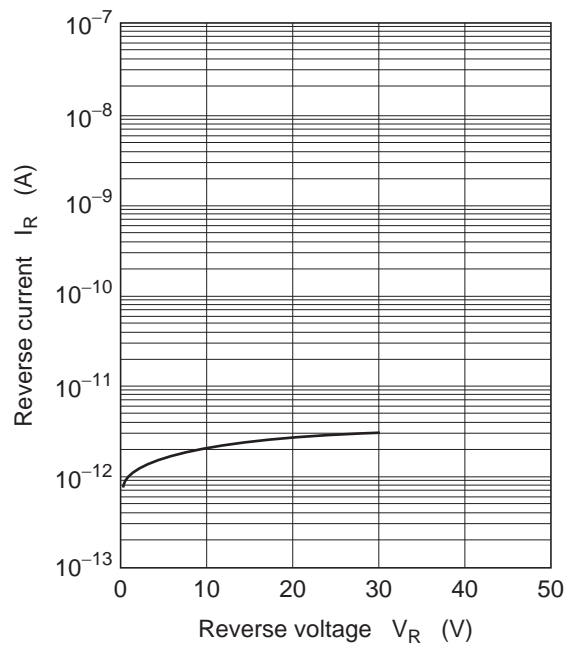


Fig.2 Reverse current vs. Reverse voltage

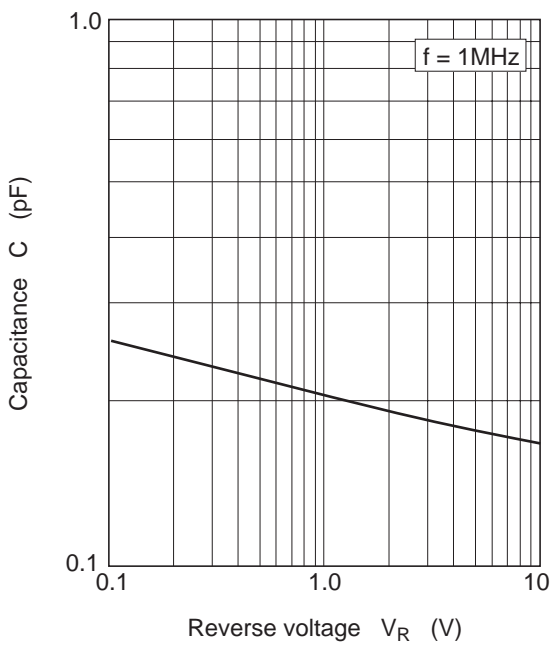


Fig.3 Capacitance vs. Reverse voltage

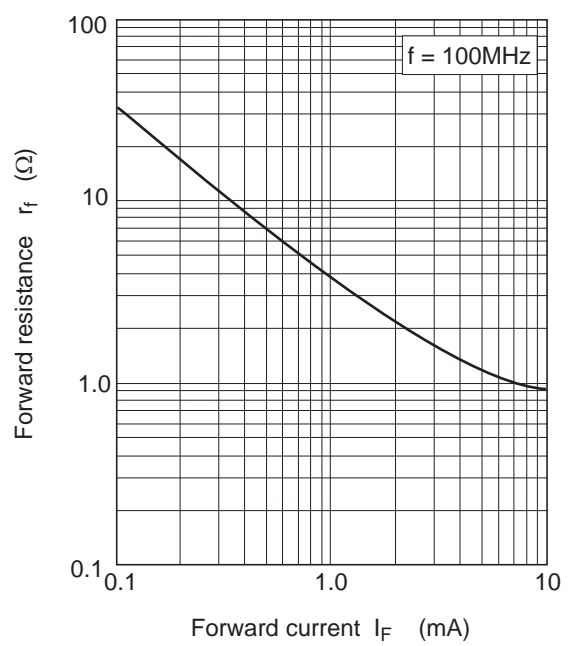
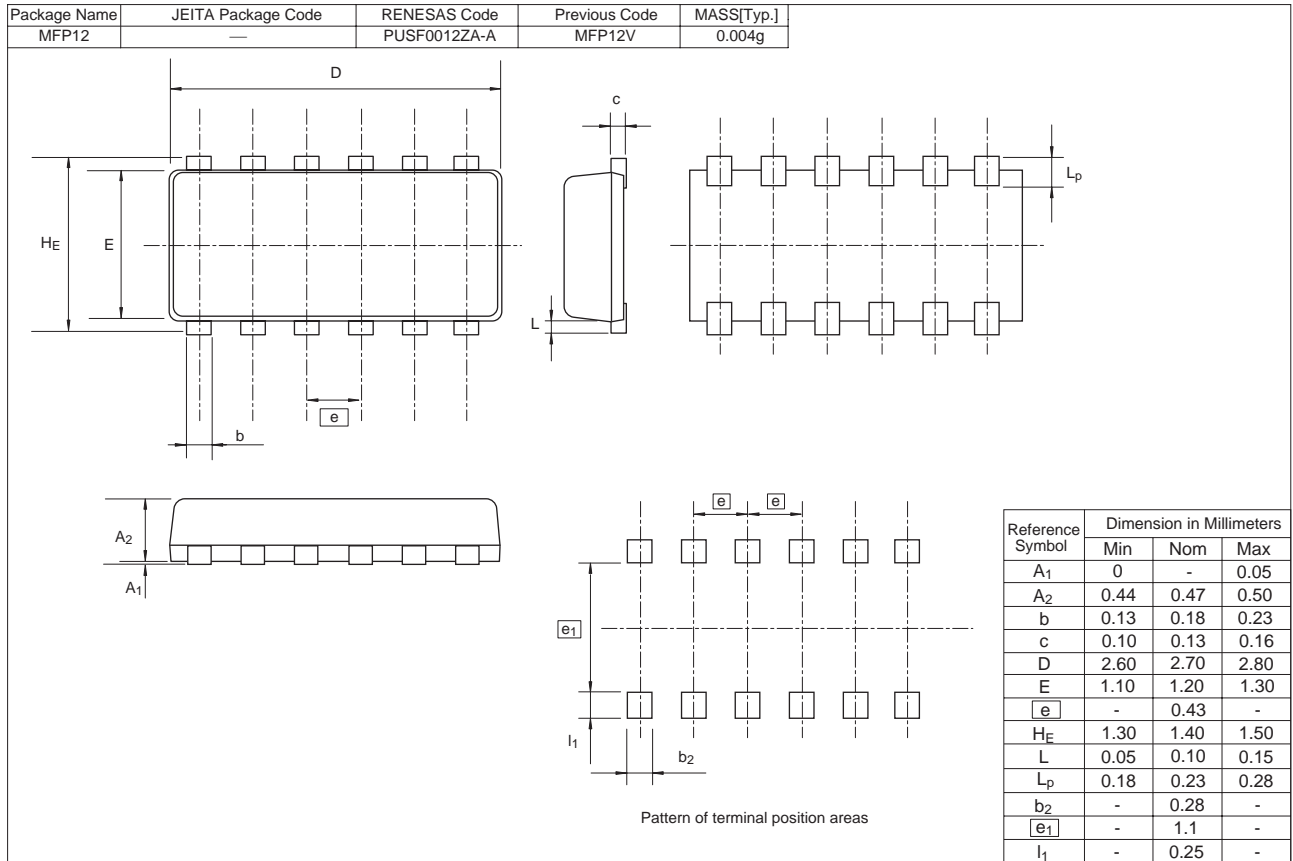


Fig.4 Forward resistance vs. Forward current

### Package Dimensions



Notes:

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