

RKP401KS

Composite Pin Diode for Antenna Switching

REJ03G1345-0200

Rev.2.00

Jul 03, 2006

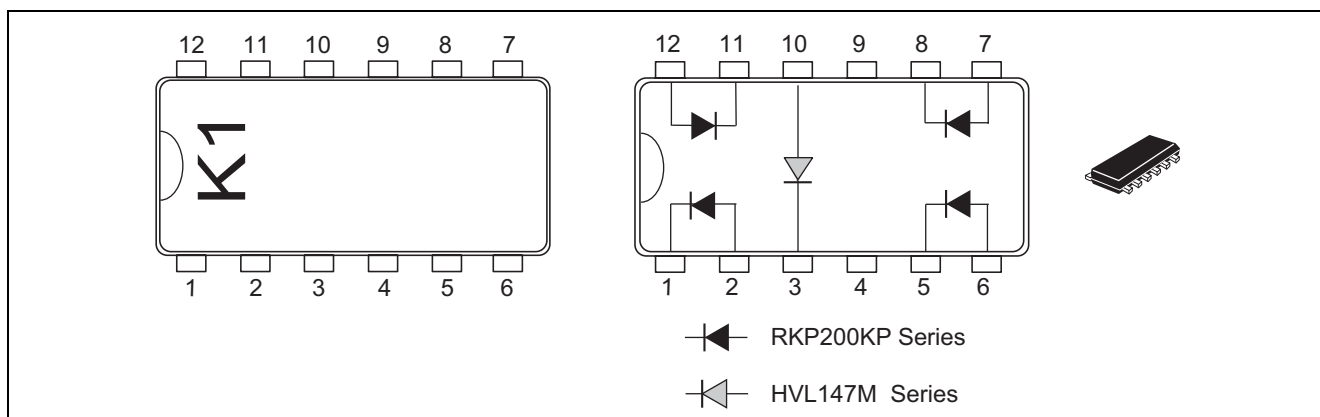
Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ($C = 0.35 \text{ pF max}$)
- Low forward resistance. ($r_f = 2.5 \Omega \text{ max @ } I_F = 2 \text{ mA, } f = 100 \text{ MHz}$)
- Thin outline of diode array with five different kind elements (MFP12) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code
RKP401KS	K1	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	Ω	$I_F = 10$ mA, $f = 100$ MHz
ESD-Capability * ¹	—	100	—	—	V	C = 200 pF, R = 0 Ω , Both forward and reverse direction 1 pulse.

Electrical Characteristics (HVL147M 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	—	—	0.31	pF	$V_R = 1$ V, $f = 1$ MHz
Forward resistance	r_f	—	—	2.5	Ω	$I_F = 2$ mA, $f = 100$ MHz
		—	—	1.5	Ω	$I_F = 10$ mA, $f = 100$ MHz
ESD-Capability * ¹	—	100	—	—	V	C = 200 pF, R = 0 Ω , 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)

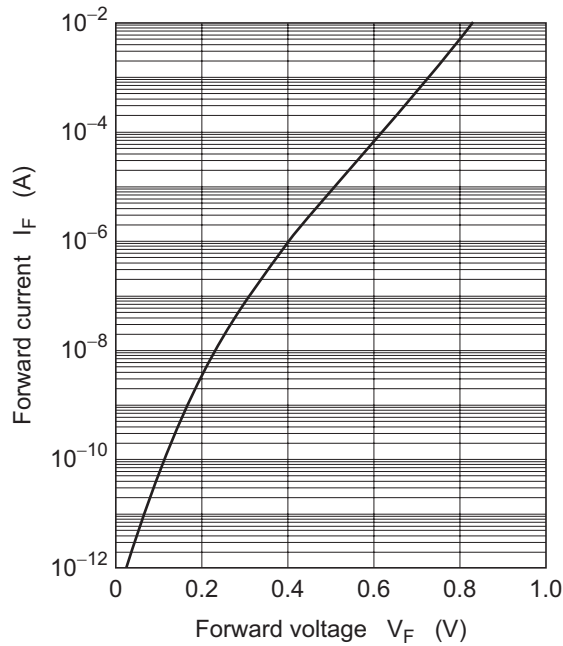


Fig.1 Forward current vs. Forward voltage

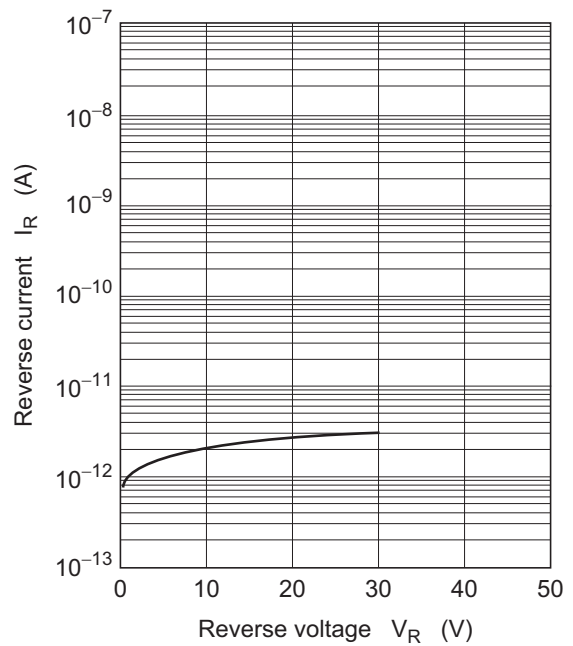


Fig.2 Reverse current vs. Reverse voltage

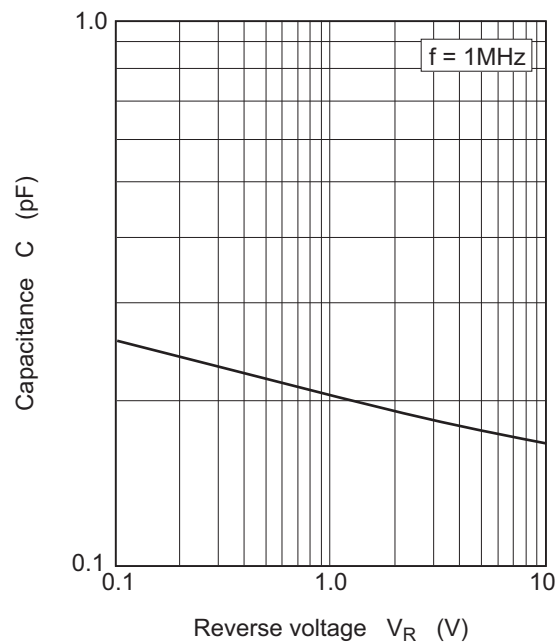


Fig.3 Capacitance vs. Reverse voltage

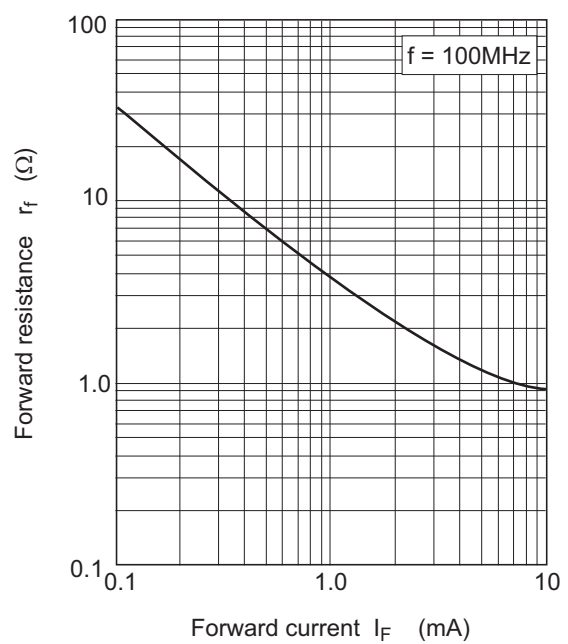


Fig.4 Forward resistance vs. Forward current

Main Characteristic (HVL147M Series)

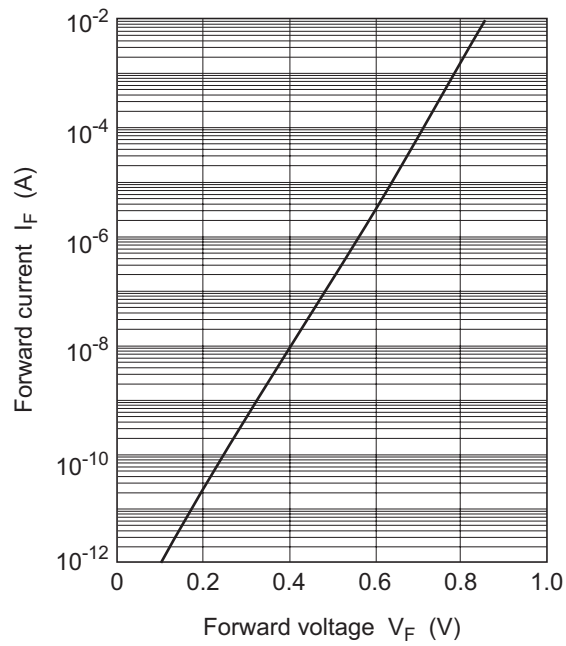


Fig.1 Forward current vs. Forward voltage

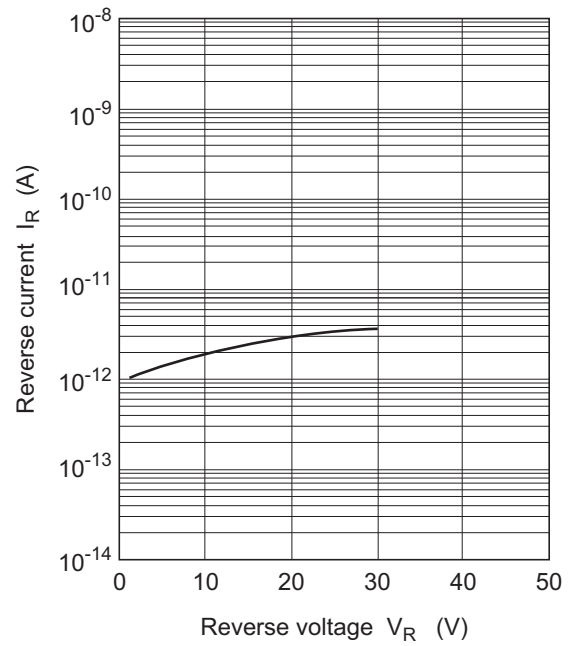


Fig.2 Reverse current vs. Reverse voltage

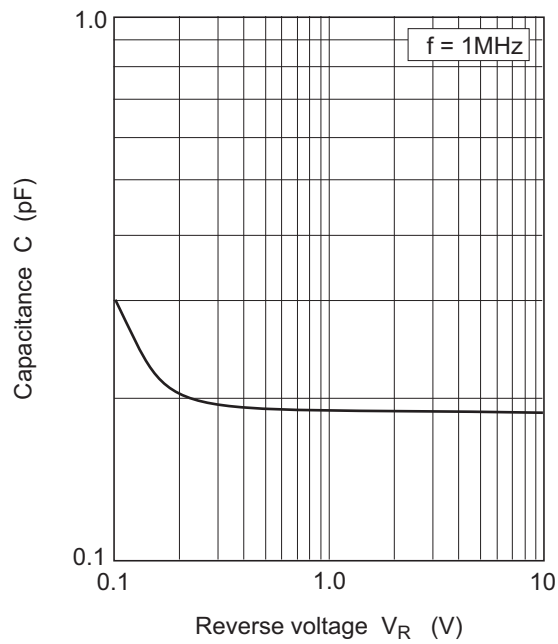


Fig.3 Capacitance vs. Reverse voltage

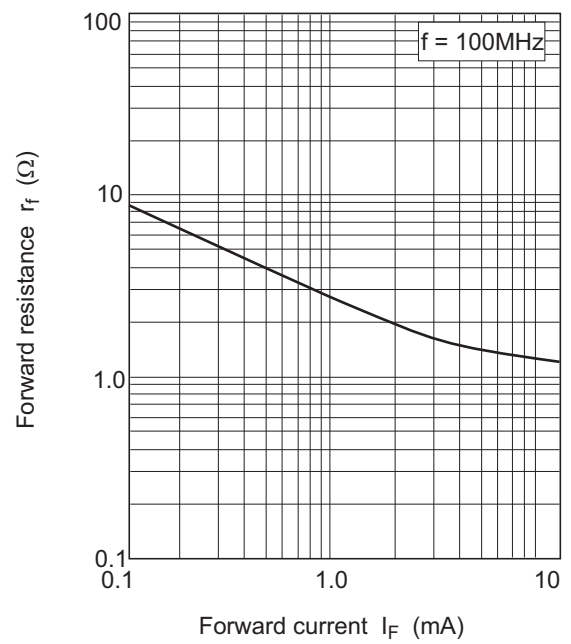
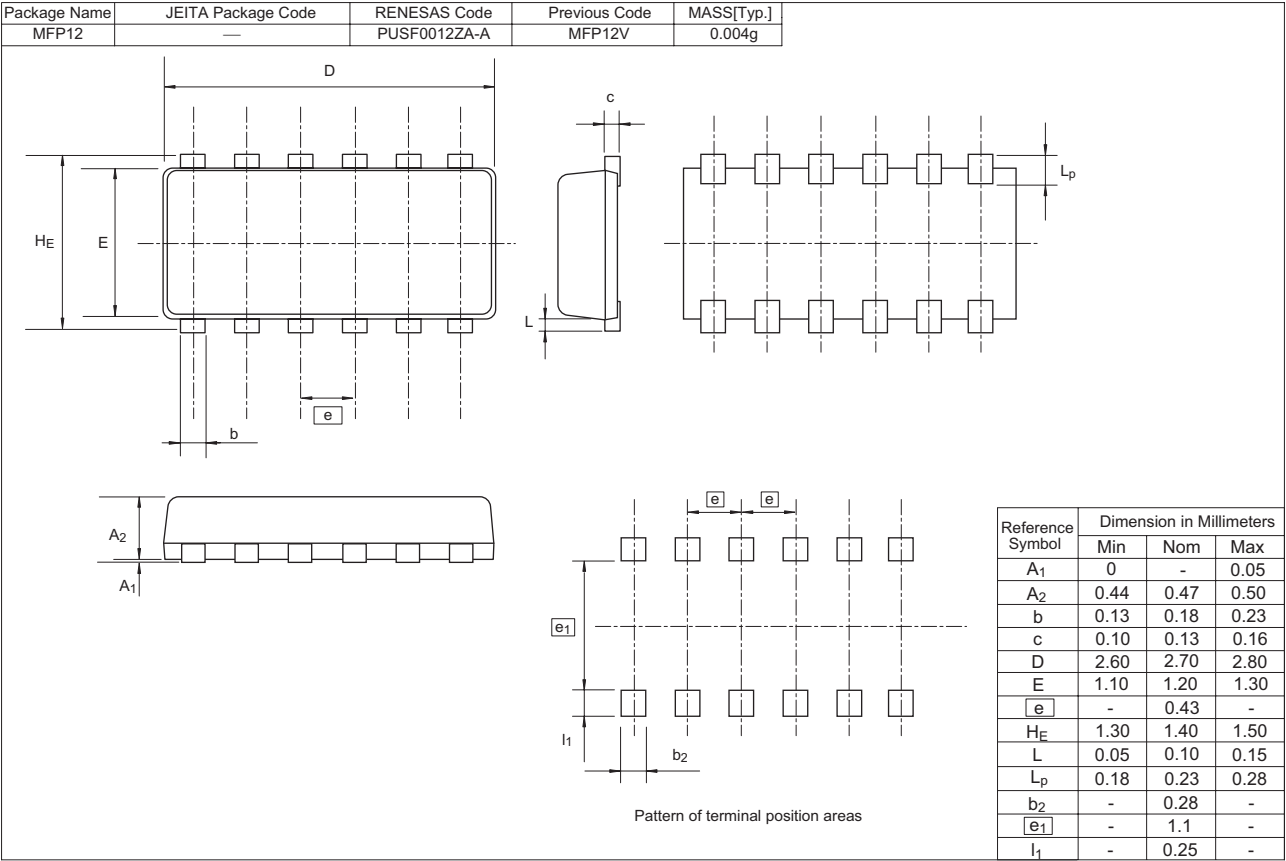


Fig.4 Forward resistance vs. Forward current

Package Dimensions



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April 1st, 2010
Renesas Electronics Corporation

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