RKP450KE

Ultra small Package Composite Pin Diode for Antenna Switching

REJ03G1664-0100
Rev.1.00
Apr 17, 2008

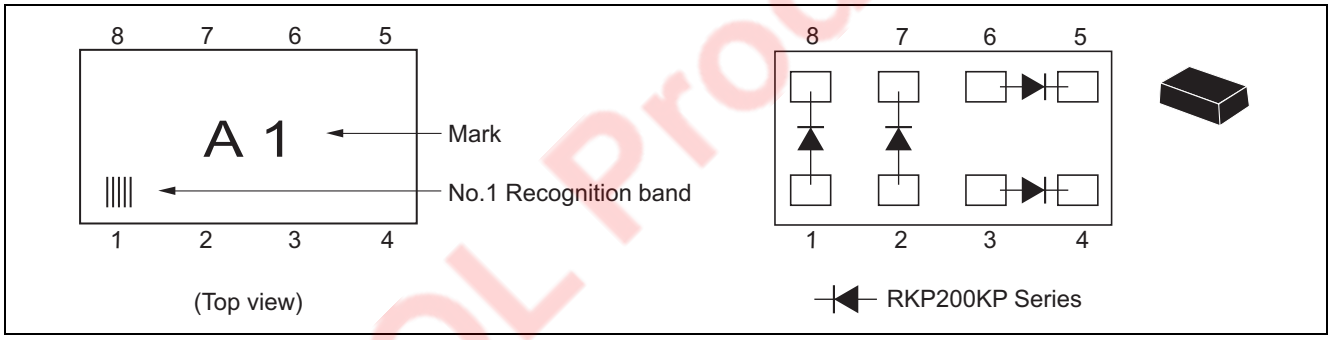
Features

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

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKP450KE	A1	MP6-8	PXSN0008ZA-A

Pin Arrangement



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Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	30	V
Forward current	I_F	100	mA
Power dissipation	Pd*[1]	100	mW
Power dissipation	Pd*[2]	200	mW
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–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 mA
Reverse current	I_R	—	—	100	nA	V_R = 30 V
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.

Notes: 1. Failure criterion ; I_R > 100 nA at V_R = 30 V
2. Please do not use the soldering iron due to avoid high stress to the MP6-8 package.

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Main Characteristic

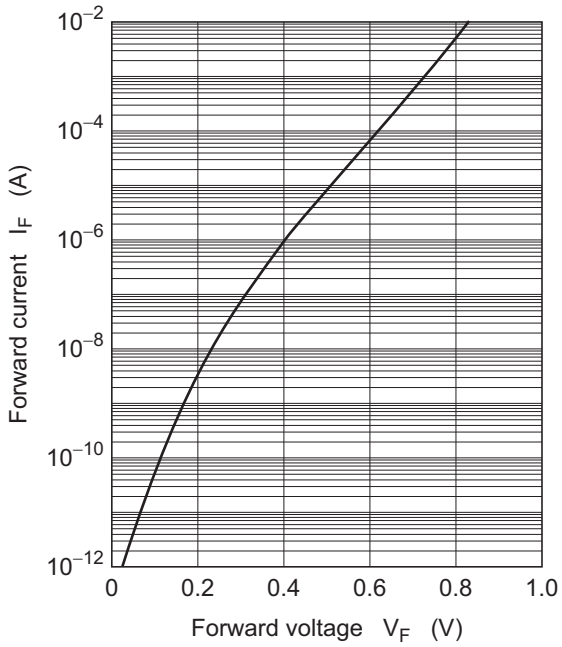

Fig.1 Forward current vs. Forward voltage

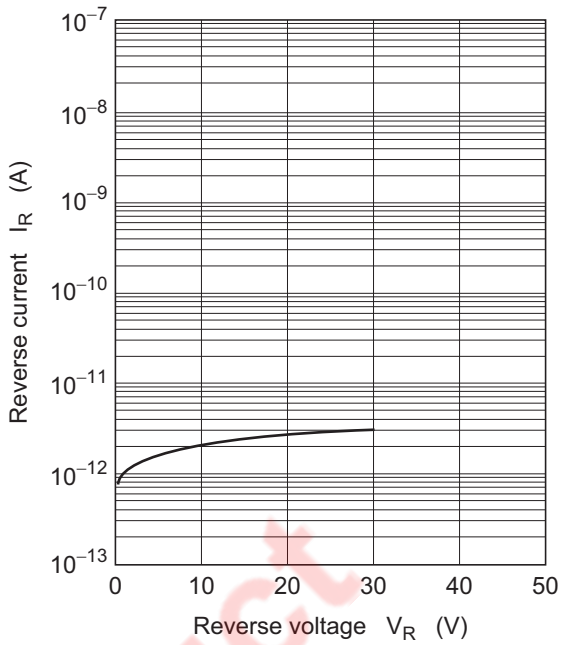

Fig.2 Reverse current vs. Reverse voltage

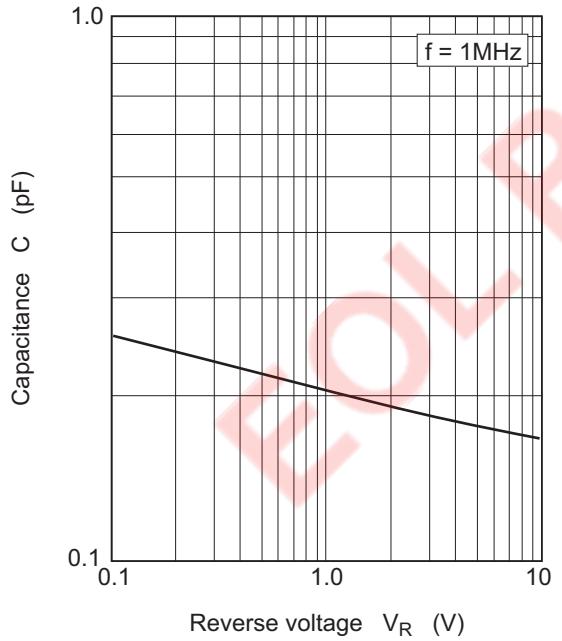

Fig.3 Capacitance vs. Reverse voltage

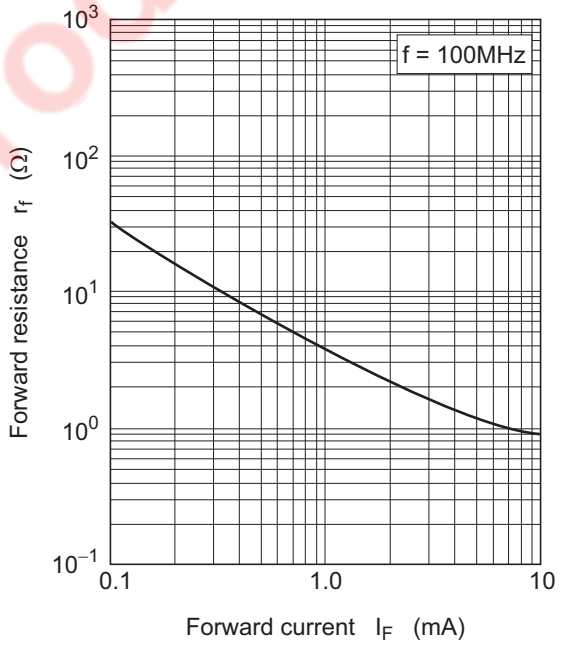

Fig.4 Forward resistance vs. Forward current

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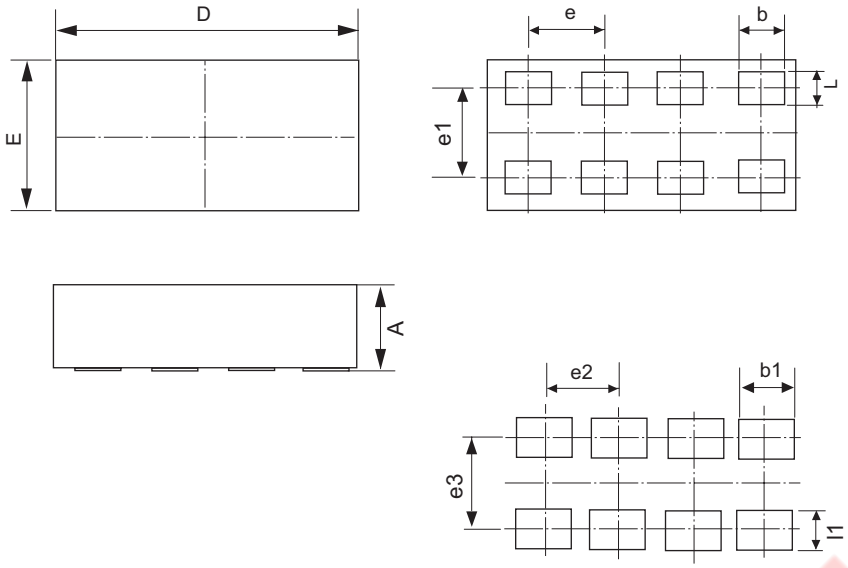
Package Dimensions

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



Pattern of terminal position areas

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	–
l_1	–	0.19	–

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Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

Renesas Technology (Shanghai) Co., Ltd.
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Tel: <86> (21) 5877-1818, Fax: <86> (21) 6887-7858/7898

Renesas Technology Hong Kong Ltd.
7th Floor, North Tower, World Finance Centre, Harbour City, Canton Road, Tsimshatsui, Kowloon, Hong Kong
Tel: <852> 2265-6688, Fax: <852> 2377-3473

Renesas Technology Taiwan Co., Ltd.
10th Floor, No.99, Fushing North Road, Taipei, Taiwan
Tel: <886> (2) 2715-2888, Fax: <886> (2) 3518-3399

Renesas Technology Singapore Pte. Ltd.
1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632
Tel: <65> 6213-0200, Fax: <65> 6278-8001

Renesas Technology Korea Co., Ltd.
Kukje Center Bldg. 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea
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, Jln Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: <603> 7955-9390, Fax: <603> 7955-9510

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Colophon .7.2

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April 1st, 2010
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