To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

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RKP203KN

Silicon Epitaxial Trench Pin Diode for Antenna Switching

REJ03G1304-0100
Rev.100
Dec 16, 2005

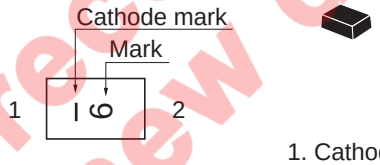
Features

- Adopting the trench structure improves low capacitance. (C = 0.31 pF max)
- Low forward resistance. (rf = 1.5 Ω max)
- Low operation current.
- Ultra small leadless Package (0805type; the use of an undersurface electrode structure) for use in compact and products.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
RKP203KN	6	MP8	PXSN0002ZA-A

Pin Arrangement



1. Cathode
2. Anode

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	100	mW
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–55 to +125	°C

Electrical Characteristics

(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		I_F = 10 mA, f = 100 MHz
ESD-Capability *[1]	—	100	—	—	V	C = 200 pF, RL = 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 MP8 package.

Main Characteristic

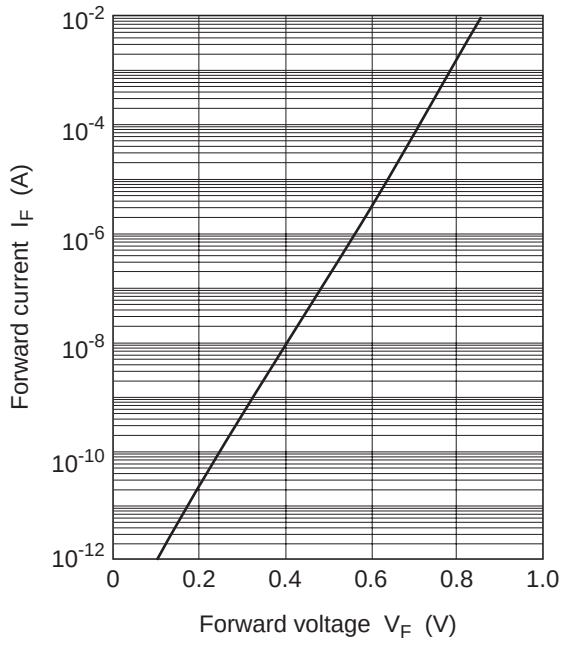


Fig.1 Forward current vs. Forward voltage

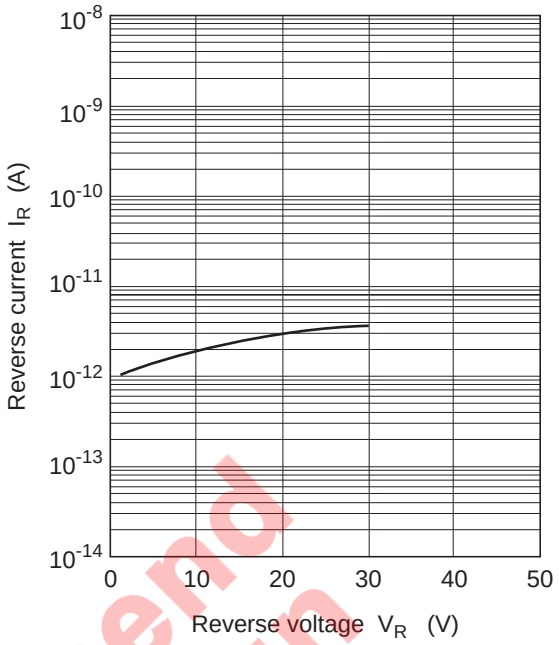


Fig.2 Reverse current vs. Reverse voltage

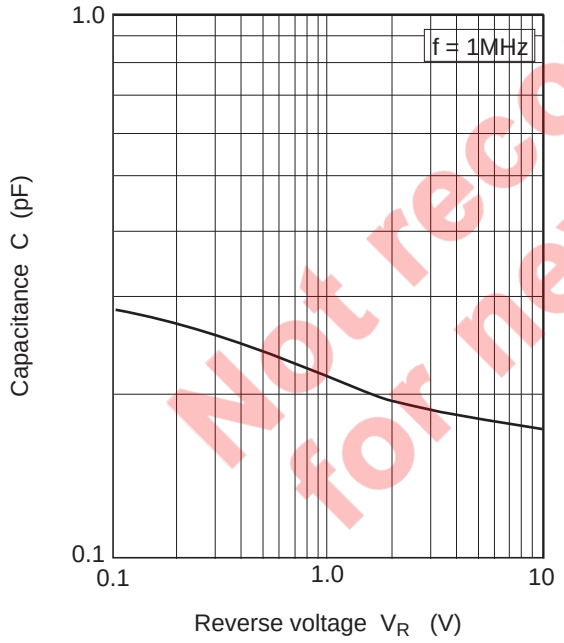


Fig.3 Capacitance vs. Reverse voltage

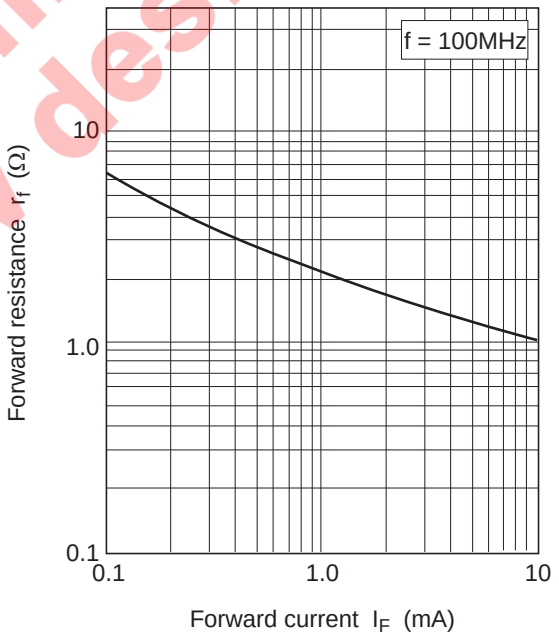
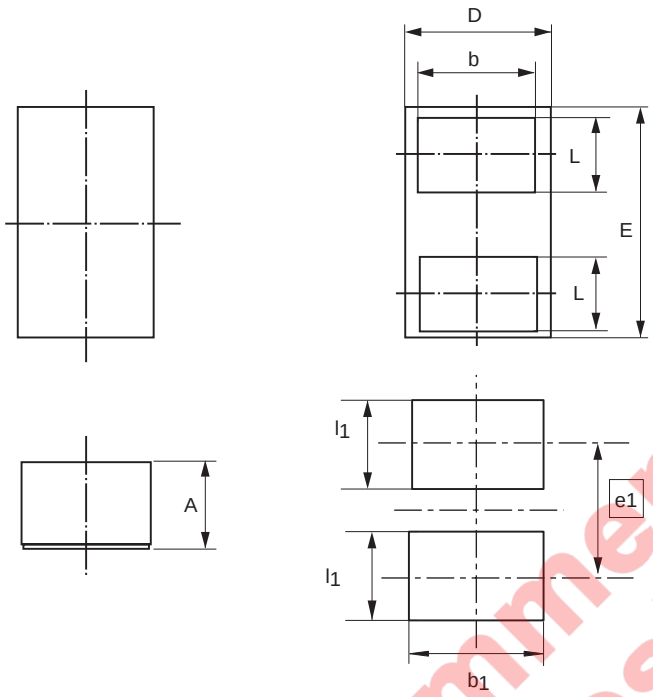


Fig.4 Forward resistance vs. Forward current

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
MP8	—	PXSN0002ZA-A	MP8V	0.00029g

Under development



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.27	0.30	0.33
b	0.38	0.40	0.42
D	0.47	0.50	0.53
E	0.77	0.80	0.83
L	0.23	0.25	0.27
b1	—	0.45	—
e1	—	0.45	—
l_1	—	0.3	—

Renesas Technology Corp. Sales Strategic Planning Div. Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

RENESAS SALES OFFICES

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Renesas Technology America, Inc.
450 Holger Way, San Jose, CA 95134-1368, U.S.A
Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

Renesas Technology Europe Limited
Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

Renesas Technology (Shanghai) Co., Ltd.
Unit 205, AZIA Center, No.133 Yincheng Rd (n), Pudong District, Shanghai 200120, China
Tel: <86> (21) 5877-1818, Fax: <86> (21) 6887-7898

Renesas Technology Hong Kong Ltd.
7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong
Tel: <852> 2265-6688, Fax: <852> 2730-6071

Renesas Technology Taiwan Co., Ltd.
10th Floor, No.99, Fushing North Road, Taipei, Taiwan
Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

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, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: <603> 7955-9390, Fax: <603> 7955-9510

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