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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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Not recommended
for new design

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RKP203KN

Silicon Epitaxial Trench Pin Diode for Antenna Switching

REJ03G1304-0100

Rev.100

Dec 16, 2005

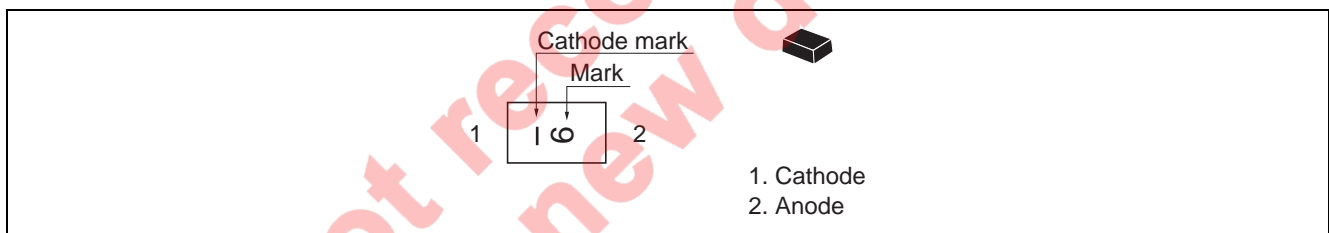
Features

- Adopting the trench structure improves low capacitance. ($C = 0.31 \text{ pF max}$)
- Low forward resistance. ($r_f = 1.5 \Omega \text{ max}$)
- 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



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

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	—	—	0.31	pF	$V_R = 1\text{ V}$, $f = 1\text{ MHz}$
Forward resistance	r_f	—	—	2.5	Ω	$I_F = 2\text{ mA}$, $f = 100\text{ MHz}$
		—	—	1.5		$I_F = 10\text{ mA}$, $f = 100\text{ MHz}$
ESD-Capability *1	—	100	—	—	V	$C = 200\text{ pF}$, $R_L = 0\ \Omega$, Both forward and reverse direction 1 pulse.

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

2. Please do not use the soldering iron due to avoid high stress to the MP8 package.

Not recommended for new designs

Main Characteristic

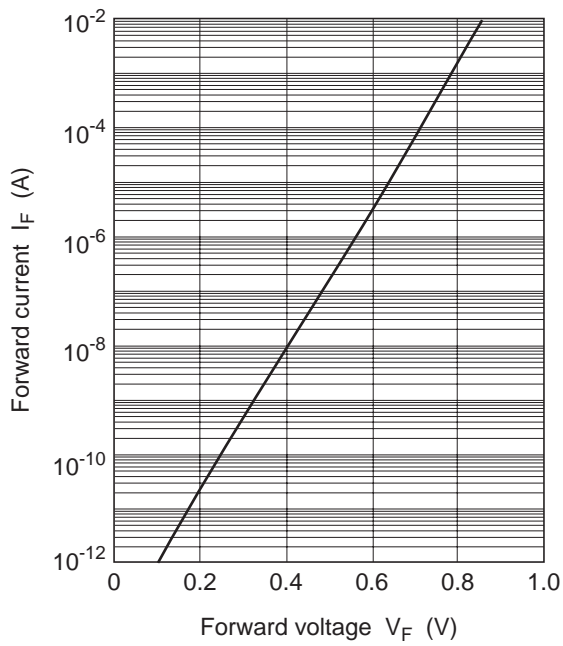


Fig.1 Forward current vs. Forward voltage

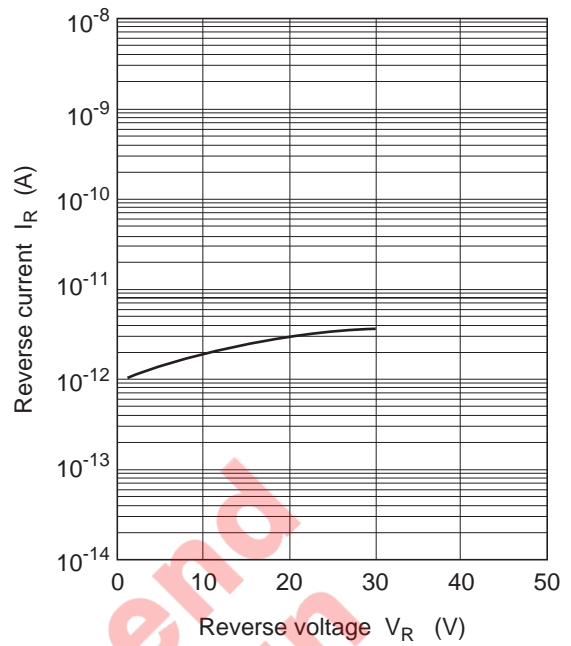


Fig.2 Reverse current vs. Reverse voltage

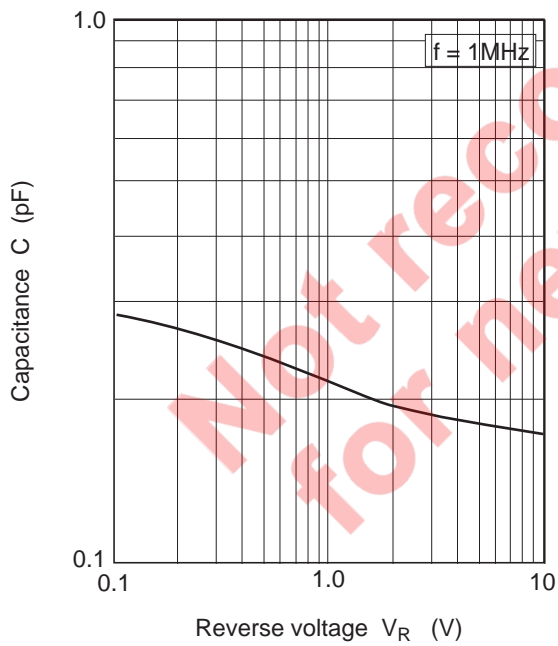


Fig.3 Capacitance vs. Reverse voltage

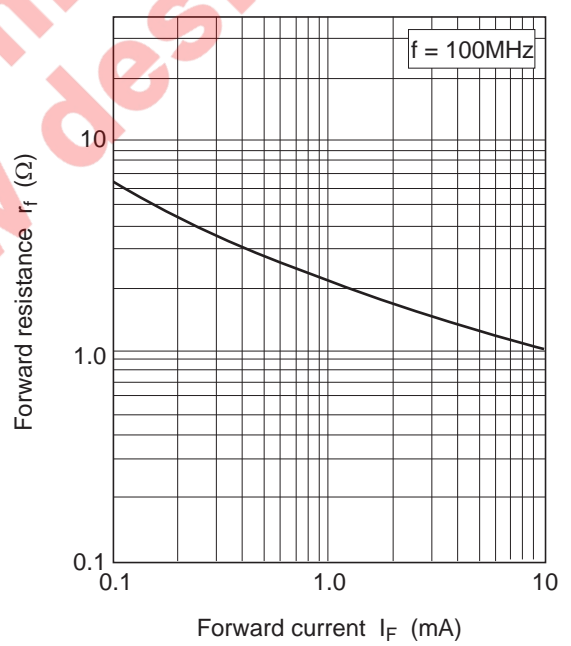
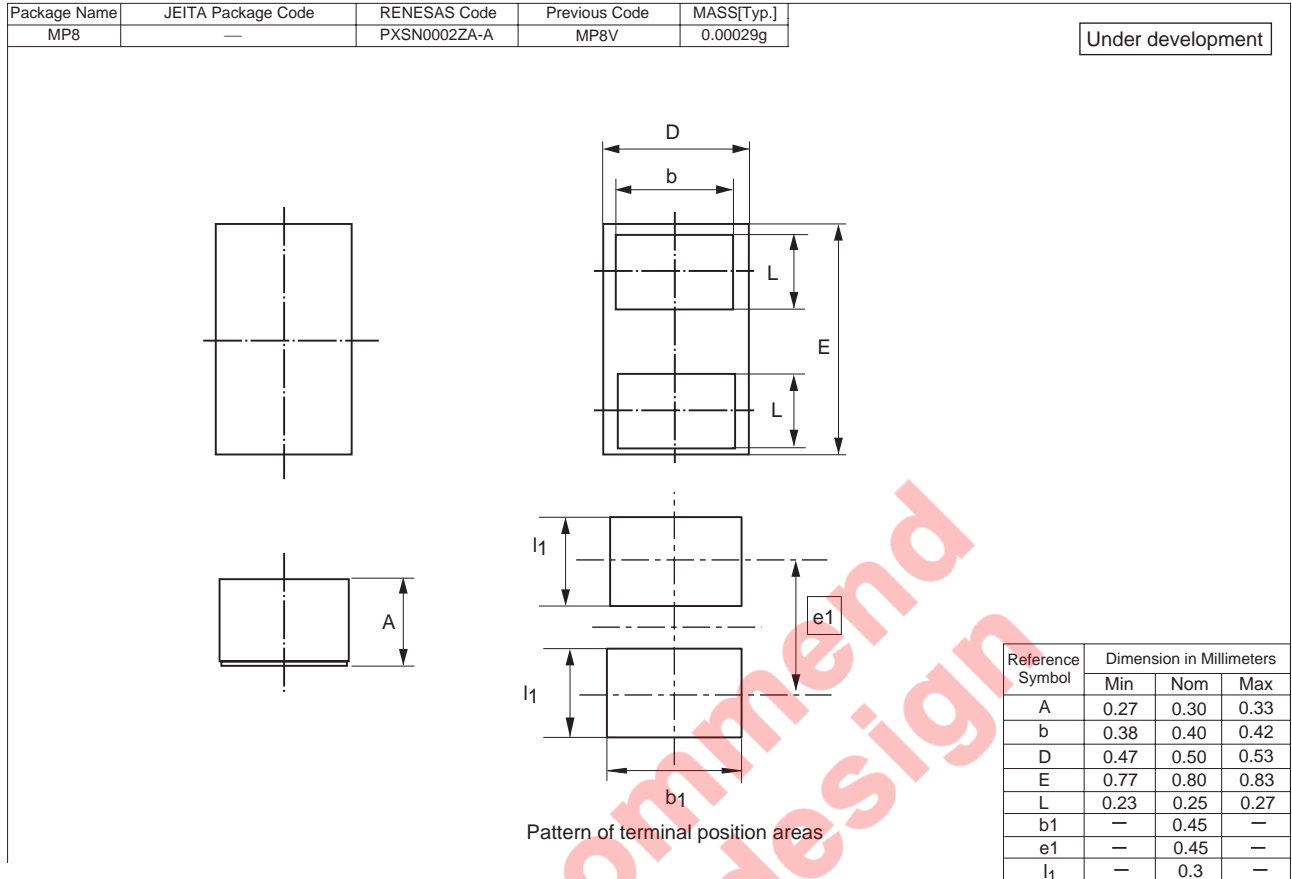


Fig.4 Forward resistance vs. Forward current

Package Dimensions



Not recommended for new design

Keep safety first in your circuit designs!

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