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April 1st, 2010
Renesas Electronics Corporation

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

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RKZ7.5TKP

Silicon Planar Zener Diode for Bi-directional Surge Absorption

REJ03G1851-0100
Rev.1.00
Feb 18, 2010

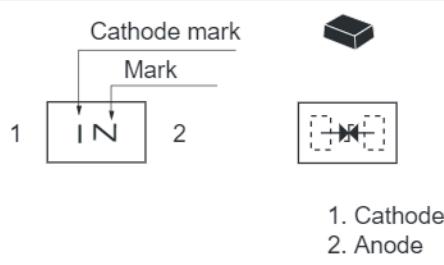
Features

- This product is for a Bi-directional zener diode so its possible to use for Bi-directional surge absorption.
- High ESD resistance (guarantee of 8 kV, compliant with the IEC61000-4-2 standard).
- Halogen free, Environmental friendly Package includes Conformity to RoHS Directive.
- Ultra small Package (0.6 mm × 0.3 mm Size leadless type)

Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
RKZ7.5TKP R	Z	MP6	PXSN0002ZB-A	R (10,000 pcs / reel)

Pin Arrangement



Absolute Maximum Ratings ^{*1}

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd ^{*2}	100	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Notes: 1. Per Package

2. See Fig.2.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Zener voltage	V _Z	6.0	—	9.0	V	I _Z = ±1 mA, 40 ms pulse
Reverse current	I _R	—	—	0.2	μA	V _R = ±4 V
Capacitance	C	—	—	8.0	pF	V _R = 0 V, f = 1 MHz
ESD-Capability ^{*1}	—	8	—	—	kV	C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Notes: 1. Failure criterion; I_R > 0.2 μA (V_R = 4 V (Both direction))

2. Please do not use the soldering iron due to avoid high stress to the MP6 package.

Main Characteristics

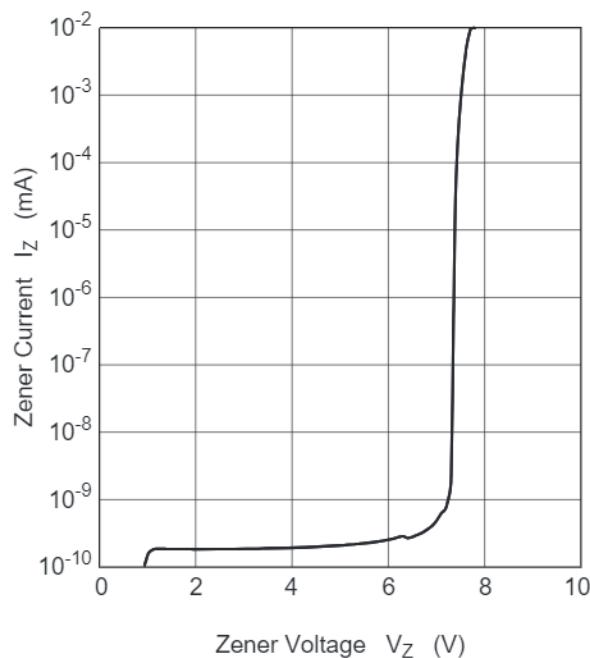


Fig.1 Zener current vs. Zener voltage

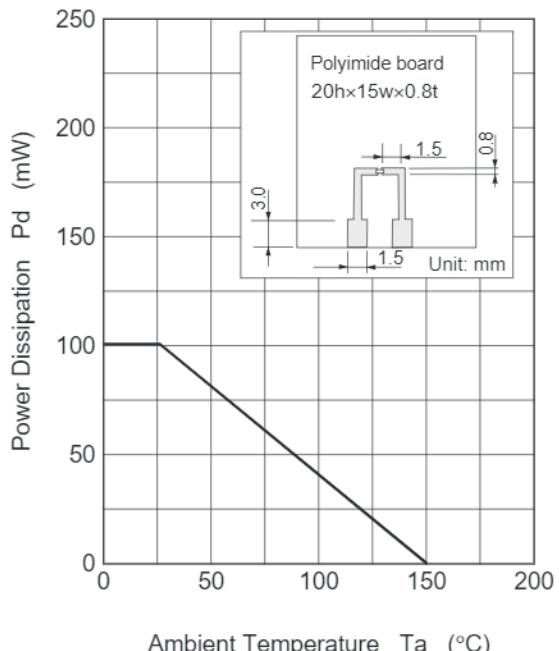


Fig.2 Power Dissipation vs. Ambient Temperature

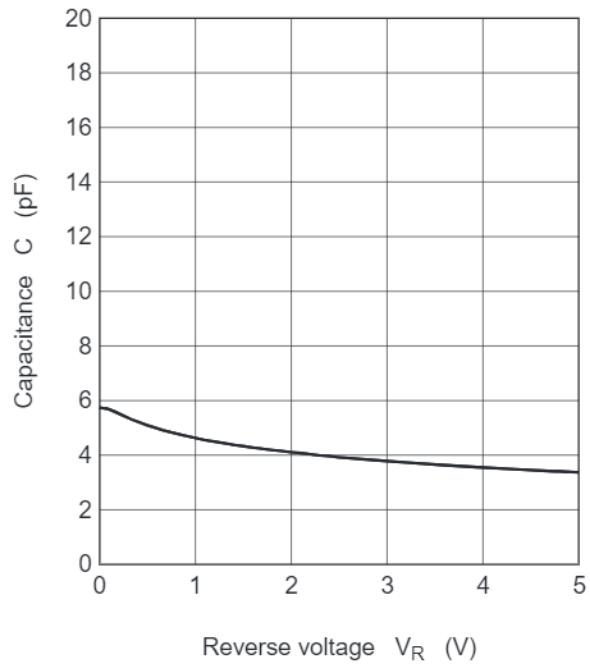
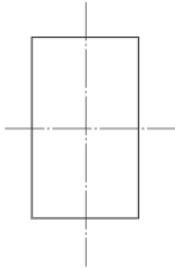
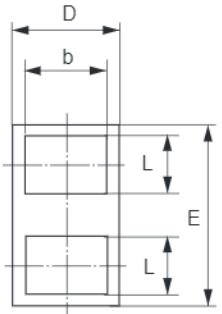


Fig.3 Capacitance vs. Reverse voltage

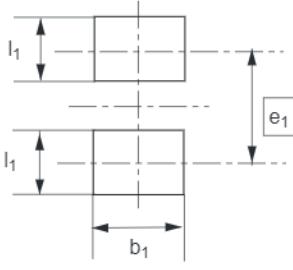
Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
MP6	—	PXSN002ZB-A	MP6V	0.00015g









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	0.29	0.32	0.35
E	0.59	0.62	0.65
L	0.17	0.19	0.21
b ₁	—	0.31	—
e ₁	—	0.38	—
l ₁	—	0.23	—

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