

# RKZ18TKG

Silicon Planar Zener Diode for Bi-directional Surge Absorption

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Rev.1.00  
Sep 21, 2010

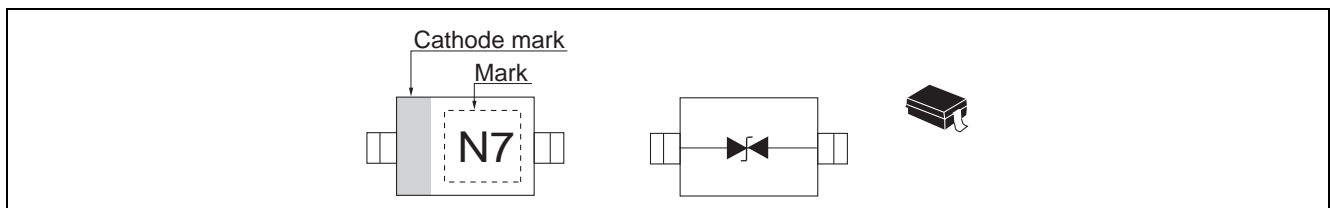
## Features

- This product is for a Bi-directional zener diode so its possible to use for Bi-directional surge absorption.
- High ESD resistance (guarantee of 30 kV, compliant with the IEC 61000-4-2 standard)
- Suitable for protecting CAN bus lines.
- Support for specifications of automobiles.
- Ultra small Resin Package (URP) is suitable for compact and high-density surface mount design.

## Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
RKZ18TKG P	N7	URP	PTSP0002ZA-A	P (3,000pcs / reel)

## Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd	200	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Zener voltage	V <sub>Z</sub>	16.2	—	19.5	V	I <sub>Z</sub> = 1 mA, 40 ms pulse
Reverse current	I <sub>R</sub>	—	—	0.1	μA	V <sub>R</sub> = 13 V
Capacitance	C	—	—	30	pF	V <sub>R</sub> = 0 V, f = 1 MHz
ESD-Capability *1	—	30	—	—	kV	C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Note: 1. Failure criterion ; I<sub>R</sub> > 0.1 μA at V<sub>R</sub> = 13 V. (Both direction)

Main Characteristics

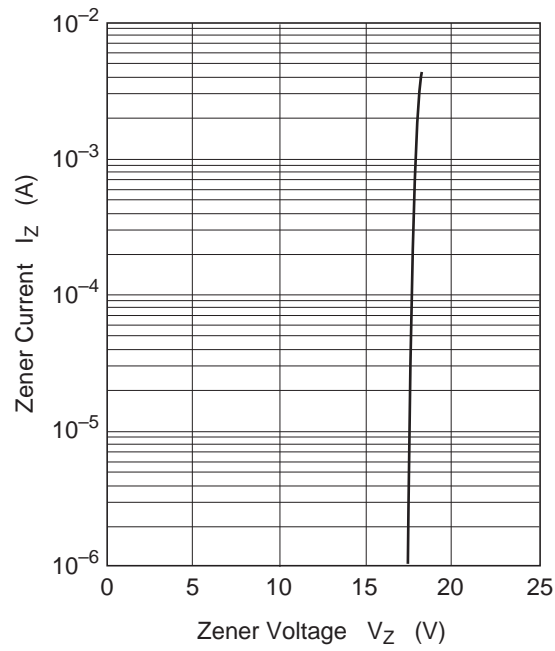


Fig.1 Zener current vs. Zener voltage

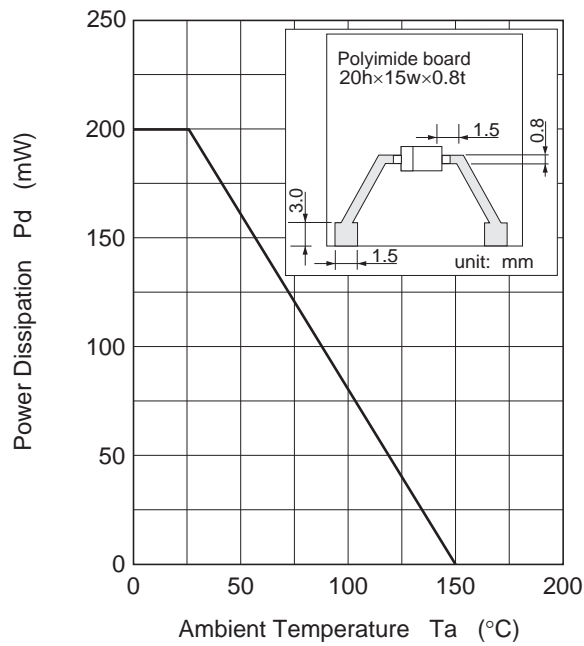
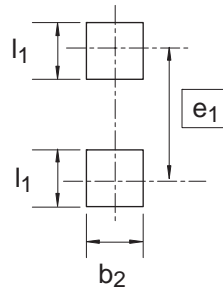
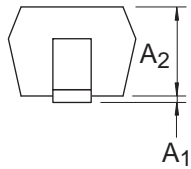
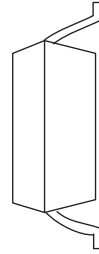
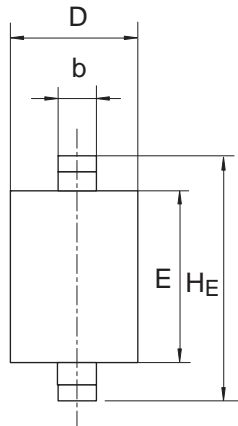


Fig.2 Power Dissipation vs. Ambient Temperature

### Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
URP	SC-76A	PTSP0002ZA-A	URP / URPV	0.004g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A <sub>1</sub>	0	-	0.1
A <sub>2</sub>	0.75	0.90	1.05
b	0.15	0.30	0.45
D	1.10	1.25	1.40
E	1.55	1.70	1.85
H <sub>E</sub>	2.35	2.50	2.65
b <sub>2</sub>	-	0.80	-
e <sub>1</sub>	-	2.30	-
l <sub>1</sub>	-	0.80	-

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