RKZ27TWAQE

Silicon Epitaxial Planar Zener Diode for Bidirectional Surge Absorption

REJ03G1666-0200
Rev.2.00
Oct 14, 2008

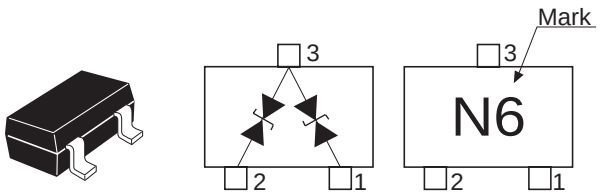
Features

- 2 lines with bidirectional characteristic in 1 package suppresses surges in both forward and reverse directions (positive and negative surges).
- 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.
- CMPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKZ27TWAQE	N6	CMPAK	PTSP0003ZB-A

Pin Arrangement



(Top View)

Absolute Maximum Ratings *[1]

(Ta = 25°C)

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

Note: 1 package total, See Fig.2.

Electrical Characteristics *[1]

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Zener voltage	V_Z	26.2	—	31.5	V	I_Z = 1 mA, 40 ms pulse
Reverse current	I_R	—	—	0.1	μA	V_R = 24 V
Capacitance	C	—	—	30	pF	V_R = 0 V, f = 1 MHz
ESD-Capability *[2]	—	30	—	—	kV	C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Notes: 1. Per one device
2. Failure criterion ; I_R > 0.1 μA at V_R = 24 V. (Both direction)

Main Characteristic

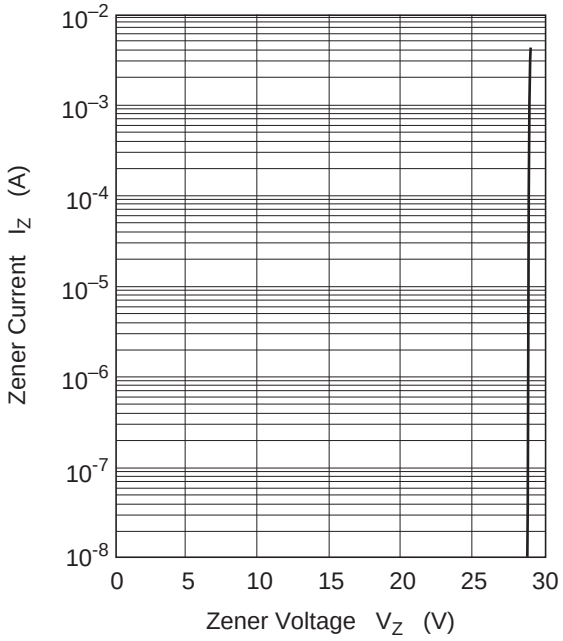


Fig.1 Zener current vs. Zener voltage

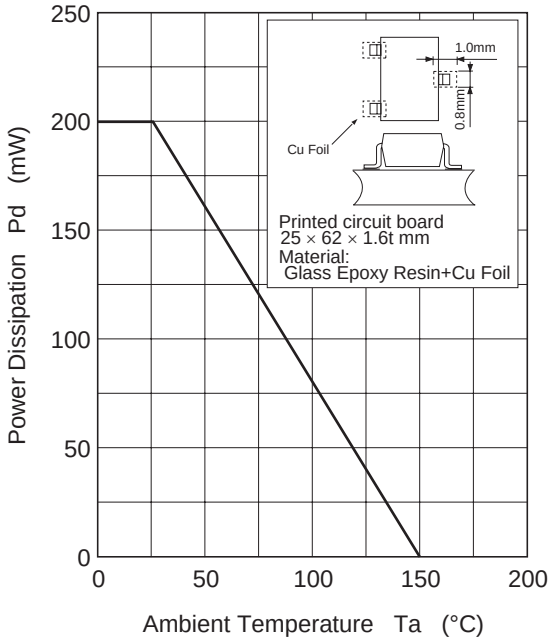
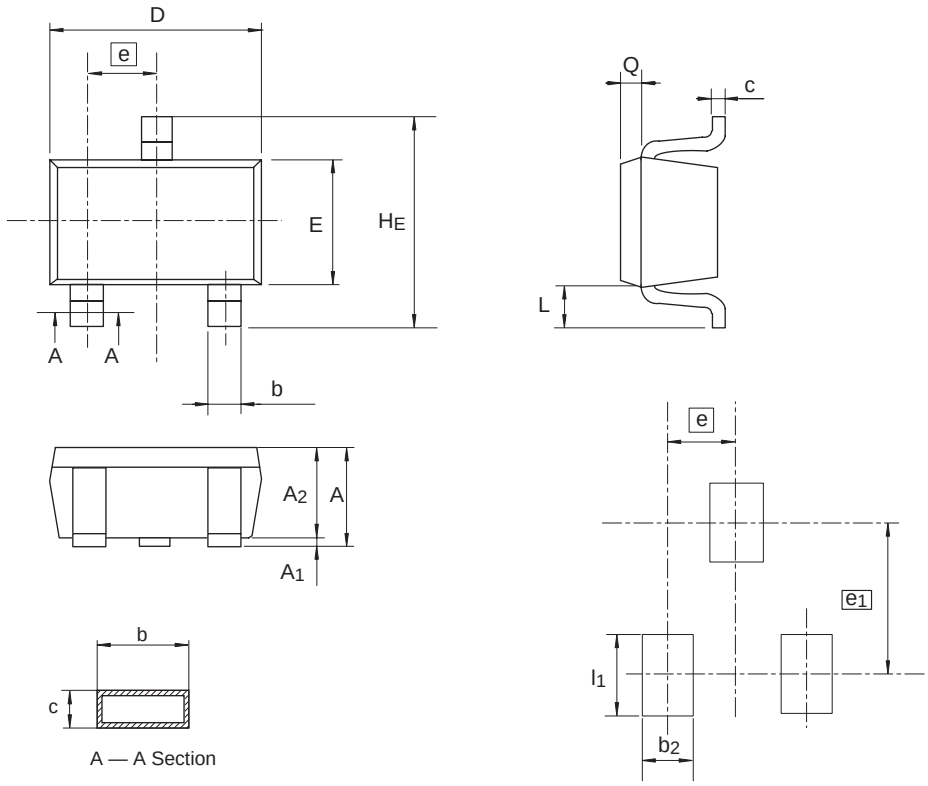


Fig.2 Power Dissipation vs. Ambient Temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
CMPAK	SC-70	PTSP0003ZB-A	CMPAK / CMPAKV	0.006g



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.8	-	1.1
A_1	0	-	0.1
A_2	0.8	0.9	1.0
b	0.25	0.3	0.4
c	0.1	0.16	0.26
D	1.8	2.0	2.2
E	1.15	1.25	1.35
e	-	0.65	-
H_E	1.8	2.1	2.4
L	-	0.425	-
b_2	-	-	0.45
e_1	-	1.5	-
l_1	-	-	0.9
Q	-	0.2	-

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Refer to "**http://www.renesas.com/en/network**" for the latest and detailed information.

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