

# RKZ-KJ Series

Silicon Planar Zener Diode for Surge Absorption and Stabilizer

REJ03G1588-0100  
Rev.1.00  
Sep 21, 2007

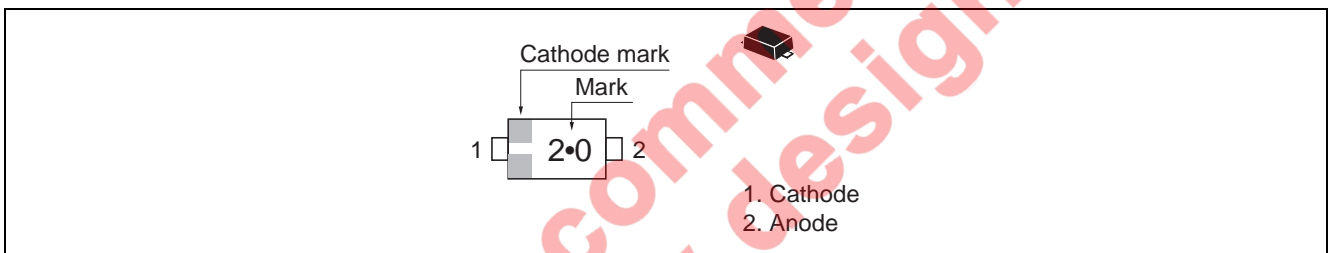
## Features

- Emboss Taping Reel Pack.
- Ultra small Flat Lead Package (UFP) is suitable for surface mount design.

## Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKZ-KJ Series	Let to Mark Code	UFP	PWSF0002ZA-A

## Pin Arrangement



Not recommended for new design

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd *1	150	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note: 1. With P.C. Board.

## Electrical Characteristics

(Ta = 25°C)

Part No.	Zener Voltage		Reverse Current		Dynamic Resistance		ESD-Capability *2	
	Vz (V) *1		Test Condition	I <sub>R</sub> (μA)	Test Condition	r <sub>d</sub> (Ω)	Test Condition	— (kV) *2
	Min	Max	I <sub>Z</sub> (mA)	Max	V <sub>R</sub> (V)	Max	I <sub>Z</sub> (mA)	Min
RKZ2.0BKJ	1.90	2.20	5	120	0.5	100	5	30
RKZ2.2BKJ	2.10	2.40	5	120	0.7	100	5	30
RKZ2.4BKJ	2.30	2.60	5	120	1.0	100	5	30
RKZ2.7B2KJ	2.65	2.90	5	120	1.0	110	5	30
RKZ3.0B2KJ	2.95	3.20	5	50	1.0	120	5	30
RKZ3.3B2KJ	3.25	3.50	5	20	1.0	130	5	30
RKZ3.6B2KJ	3.55	3.80	5	10	1.0	130	5	30
RKZ3.9B2KJ	3.87	4.10	5	10	1.0	130	5	30
RKZ4.3B2KJ	4.15	4.34	5	10	1.0	130	5	30
RKZ4.7B2KJ	4.55	4.75	5	10	1.0	130	5	30
RKZ5.1B2KJ	4.98	5.20	5	5	1.5	130	5	30
RKZ5.6B2KJ	5.49	5.73	5	5	2.5	80	5	30
RKZ6.2B2KJ	6.06	6.33	5	2	3.0	50	5	30
RKZ6.8B2KJ	6.65	6.93	5	2	3.5	30	5	30
RKZ7.5B2KJ	7.28	7.60	5	2	4.0	30	5	30
RKZ8.2B2KJ	8.02	8.36	5	2	5.0	30	5	30
RKZ9.1B2KJ	8.85	9.23	5	2	6.0	30	5	30
RKZ10B2KJ	9.77	10.21	5	2	7.0	30	5	30
RKZ11B2KJ	10.76	11.22	5	2	8.0	30	5	30
RKZ12B2KJ	11.74	12.24	5	2	9.0	35	5	30
RKZ13B2KJ	12.91	13.49	5	2	10.0	35	5	30
RKZ15B2KJ	14.34	14.98	5	2	11.0	40	5	25
RKZ16B2KJ	15.85	16.51	5	2	12.0	40	5	25
RKZ18B2KJ	17.56	18.35	5	2	13.0	45	5	25
RKZ20B2KJ	19.52	20.39	5	2	15.0	50	5	20
RKZ22B2KJ	21.54	22.47	5	2	17.0	55	5	20
RKZ24B2KJ	23.72	24.78	5	2	19.0	60	5	15
RKZ27BKJ	25.10	28.90	2	2	21.0	70	2	15
RKZ30BKJ	28.00	32.00	2	2	23.0	80	2	13
RKZ33BKJ	31.00	35.00	2	2	25.0	80	2	8
RKZ36BKJ	34.00	38.00	2	2	27.0	90	2	8

Notes: 1. Tested with pulse (Pw = 40 ms).

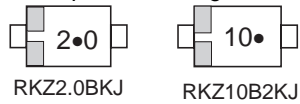
2. C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse  
Failure criterion ; According to IR spec

3. The material of lead is exposed for cutting plane. Therefore, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

Mark Code

Part No.	Mark No.	Part No.	Mark No.
RKZ2.0BKJ	2 · 0	RKZ9.1B2KJ	9 · 1
RKZ2.2BKJ	2 · 2	RKZ10B2KJ	1 0 ·
RKZ2.4BKJ	2 · 4	RKZ11B2KJ	1 1 ·
RKZ2.7B2KJ	2 · 7	RKZ12B2KJ	1 2 ·
RKZ3.0B2KJ	3 · 0	RKZ13B2KJ	1 3 ·
RKZ3.3B2KJ	3 · 3	RKZ15B2KJ	1 5 ·
RKZ3.6B2KJ	3 · 6	RKZ16B2KJ	1 6 ·
RKZ3.9B2KJ	3 · 9	RKZ18B2KJ	1 8 ·
RKZ4.3B2KJ	4 · 3	RKZ20B2KJ	2 0 ·
RKZ4.7B2KJ	4 · 7	RKZ22B2KJ	2 2 ·
RKZ5.1B2KJ	5 · 1	RKZ24B2KJ	2 4 ·
RKZ5.6B2KJ	5 · 6	RKZ27BKJ	2 7 ·
RKZ6.2B2KJ	6 · 2	RKZ30BKJ	3 0 ·
RKZ6.8B2KJ	6 · 8	RKZ33BKJ	3 3 ·
RKZ7.5B2KJ	7 · 5	RKZ36BKJ	3 6 ·
RKZ8.2B2KJ	8 · 2		

Note: 1. Example of Marking



Not recommend  
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Main Characteristic

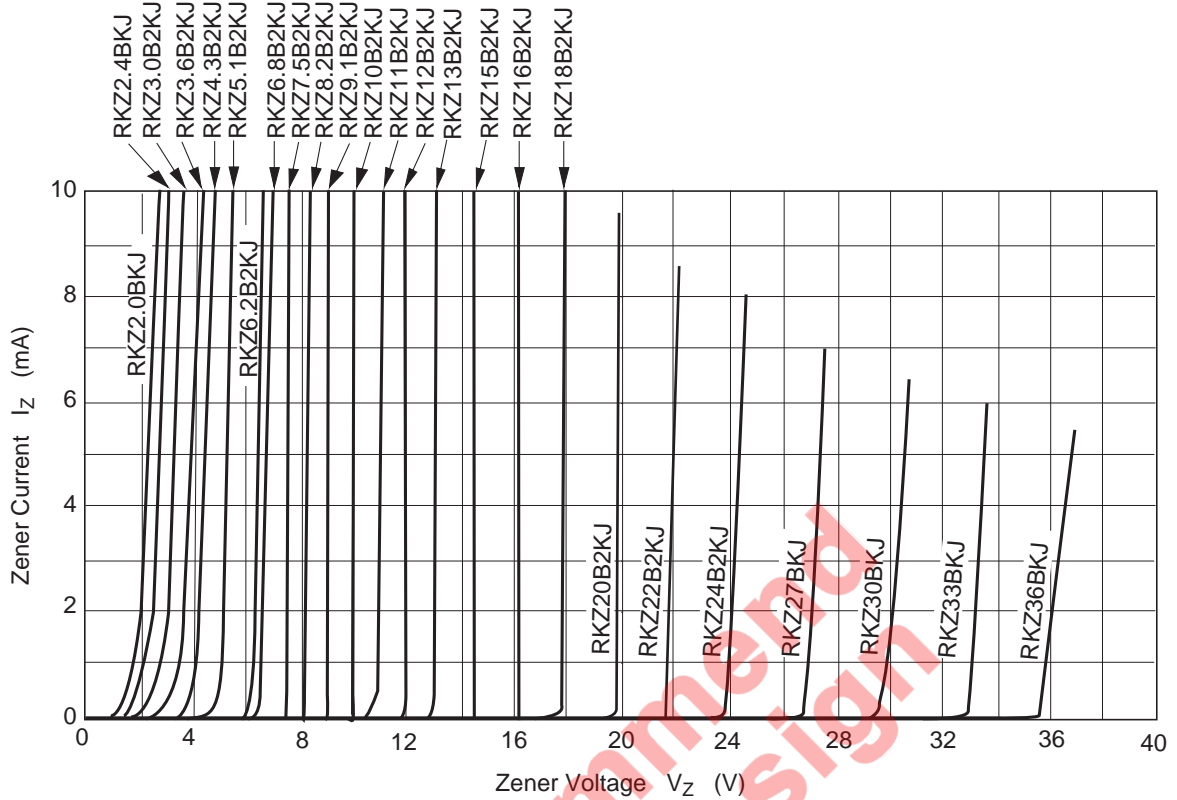


Fig.1 Zener current vs. Zener voltage

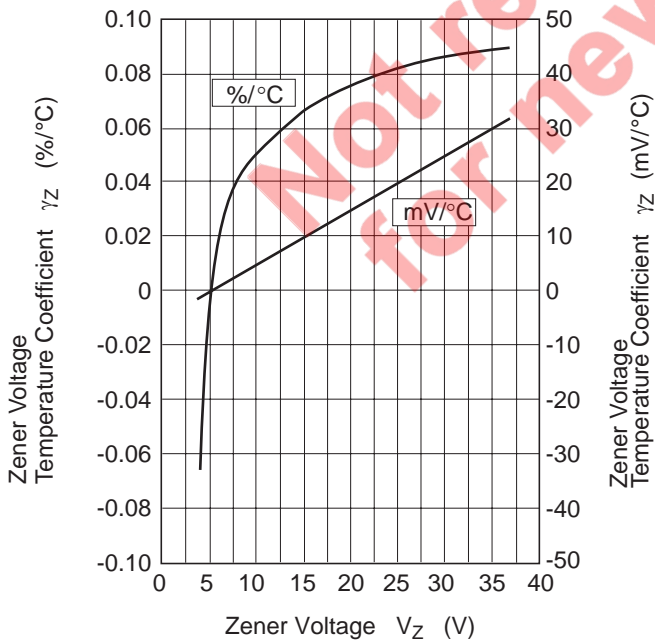


Fig.2 Temperature Coefficient vs. Zener voltage

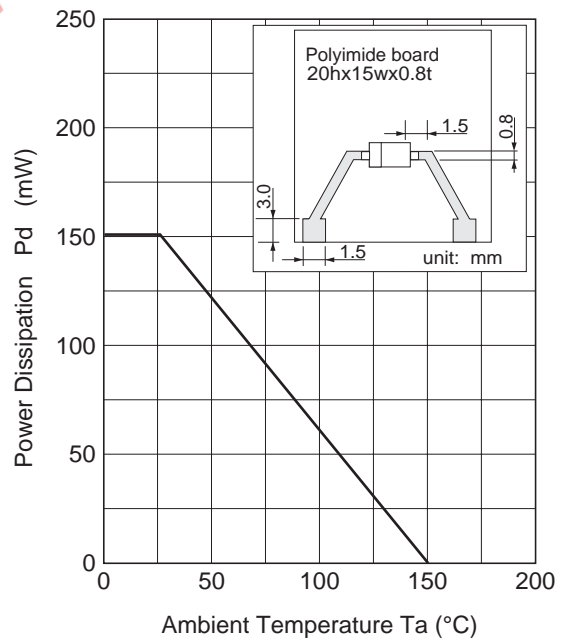
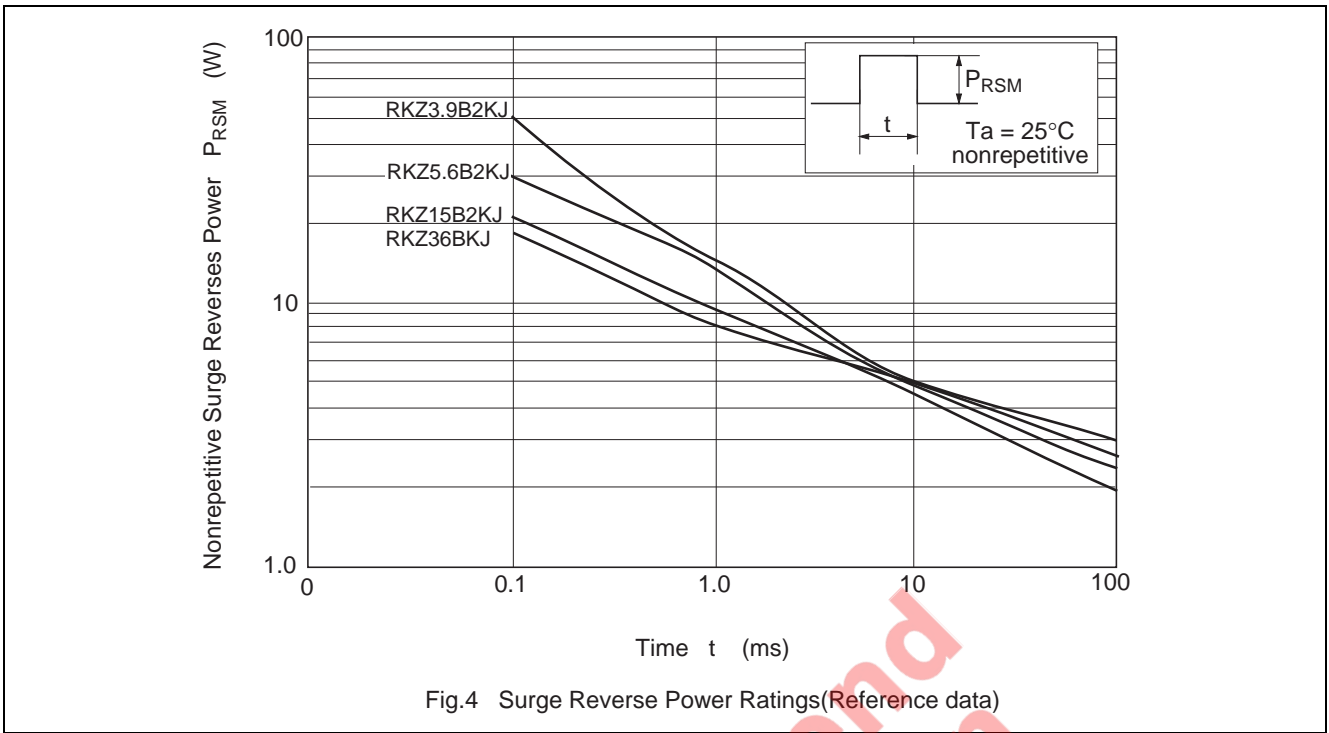


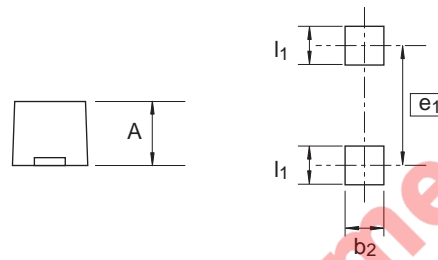
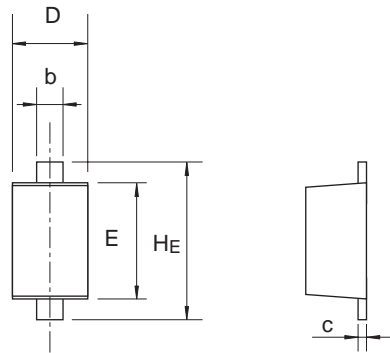
Fig.3 Power Dissipation vs. Ambient Temperature



Not recommended for new design

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
UFP	SC-79	PWSF0002ZA-A	UFP / UFPV	0.0016g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.50	0.60	0.70
b	0.25	0.30	0.35
c	0.08	0.13	0.18
D	0.70	0.80	0.90
E	1.10	1.20	1.30
HE	1.50	1.60	1.70
b2	—	0.80	—
e1	—	1.70	—
l1	—	0.60	—

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April 1<sup>st</sup>, 2010  
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