

# RKZ-KV Series

Silicon Planar Zener Diode for Constant voltage regulator

REJ03G1700-0100

Rev.1.00

Feb 10, 2010

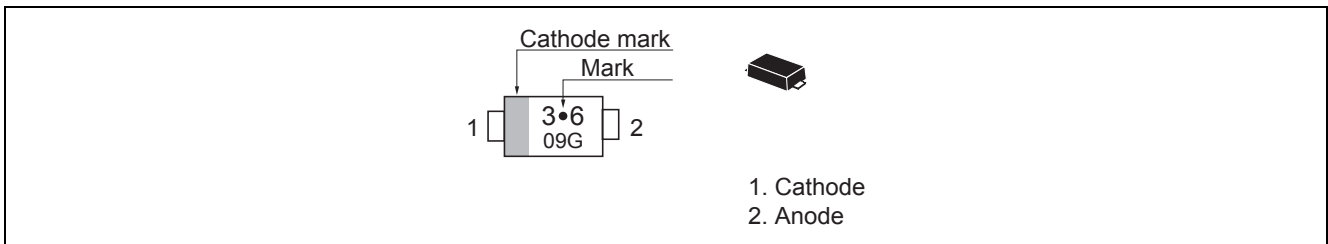
## Features

- These diodes are delivered taped.
- Small Resin Package Flat lead type (SRP-F) is suitable for compact and high-density surface mount design.

## Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
RKZ-KV Series	Let to Mark Code	SRP-F	PWSF0002ZB-A	P (3,000 pcs / reel)

## Pin Arrangement



## Absolute Maximum Ratings

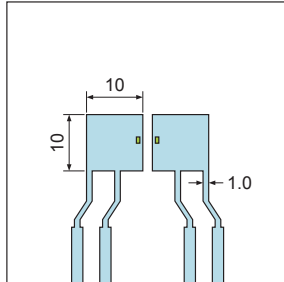
(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd *1	700	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note: 1. Device mounted on glass-epoxy board (50 × 50mm, t = 1.6mm)

2. Solder land (10 × 10 mm)

50h × 50w × 1.6t (mm)



## 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
RKZ3.6BKV	3.40	3.80	10	10	1	130	10	30
RKZ3.9BKV	3.70	4.10	10	10	1	130	10	30
RKZ4.3BKV	4.01	4.48	10	10	1	130	10	30
RKZ4.7BKV	4.42	4.90	10	10	1	130	10	30
RKZ5.1BKV	4.84	5.37	10	5	1.5	130	10	30
RKZ5.6BKV	5.31	5.92	10	5	2.5	80	10	30
RKZ6.2BKV	5.86	6.53	10	2	3	50	10	30
RKZ6.8BKV	6.47	7.14	10	2	3.5	30	10	30
RKZ7.5BKV	7.06	7.84	10	2	4	30	10	30
RKZ8.2BKV	7.76	8.64	10	2	5	30	10	30
RKZ9.1BKV	8.56	9.55	10	2	6	30	10	30
RKZ10BKV	9.45	10.55	10	2	7	30	10	30
RKZ11BKV	10.44	11.56	10	2	8	30	10	30
RKZ12BKV	11.42	12.60	10	2	9	35	10	30
RKZ13BKV	12.47	13.96	10	2	10	35	10	30
RKZ15BKV	13.84	15.52	5	2	11	40	5	30
RKZ16BKV	15.37	17.09	5	2	12	40	5	30
RKZ18BKV	16.94	19.03	5	2	13	45	5	30
RKZ20BKV	18.86	21.08	5	2	15	50	5	30
RKZ22BKV	20.88	23.17	5	2	17	55	5	30
RKZ24BKV	22.93	25.57	5	2	19	60	5	30
RKZ27BKV	25.10	28.90	2	2	21	70	2	30
RKZ30BKV	28.00	32.00	2	2	23	80	2	30
RKZ33BKV	31.00	35.00	2	2	25	80	2	30
RKZ36BKV	34.00	38.00	2	2	27	90	2	30

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

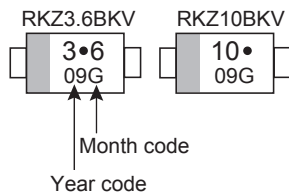
2. C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse

Failure criterion ; According to IR spec

### Mark Code

Part No.	Mark No.	Part No.	Mark No.
RKZ3.6BKV	3 · 6	RKZ12BKV	12 ·
RKZ3.9BKV	3 · 9	RKZ13BKV	13 ·
RKZ4.3BKV	4 · 3	RKZ15BKV	15 ·
RKZ4.7BKV	4 · 7	RKZ16BKV	16 ·
RKZ5.1BKV	5 · 1	RKZ18BKV	18 ·
RKZ5.6BKV	5 · 6	RKZ20BKV	20 ·
RKZ6.2BKV	6 · 2	RKZ22BKV	22 ·
RKZ6.8BKV	6 · 8	RKZ24BKV	24 ·
RKZ7.5BKV	7 · 5	RKZ27BKV	27 ·
RKZ8.2BKV	8 · 2	RKZ30BKV	30 ·
RKZ9.1BKV	9 · 1	RKZ33BKV	33 ·
RKZ10BKV	10 ·	RKZ36BKV	36 ·
RKZ11BKV	11 ·		

Note: 1. Example of Marking



Year code: Last two digits of the year ex: 2009→09

Month code

Jan.	Feb.	Mar.	Apr.	May	Jun	July	Aug.	Sep.	Oct.	Nov.	Dec.
A	B	C	D	E	F	G	H	J	K	L	M

Main Characteristics

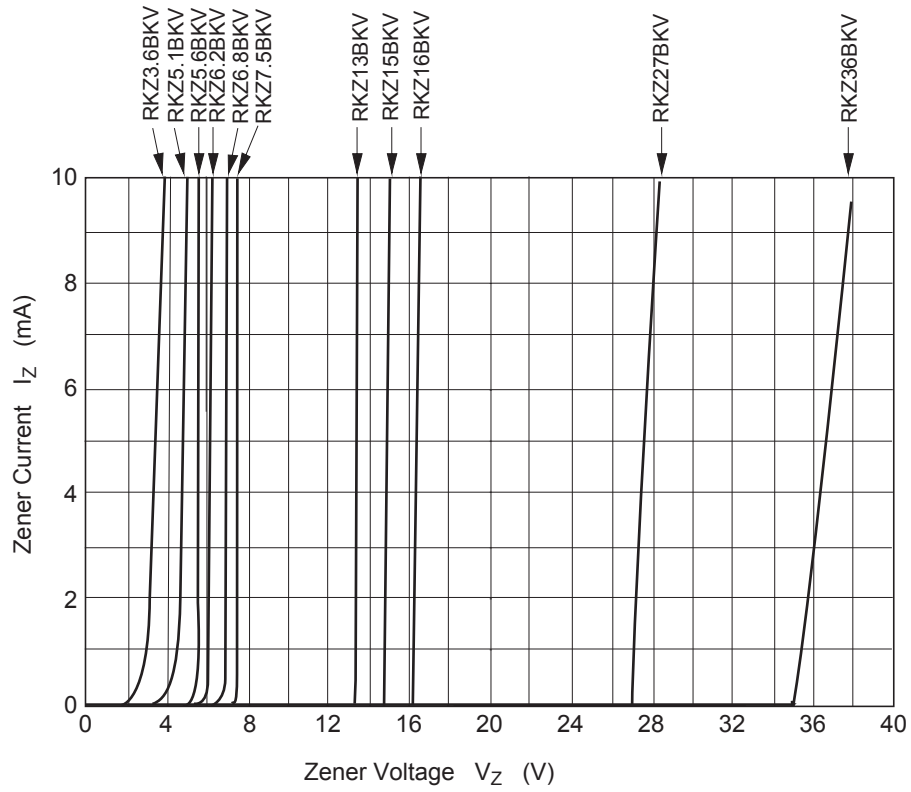


Fig.1 Zener current vs. Zener voltage

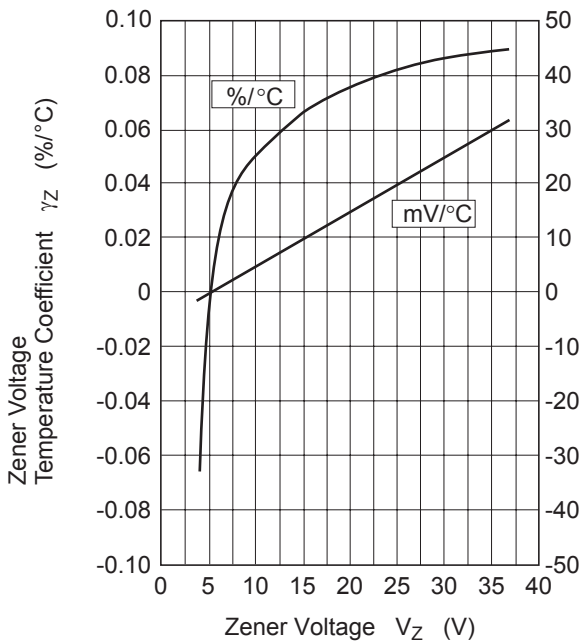


Fig.2 Temperature Coefficient vs. Zener voltage

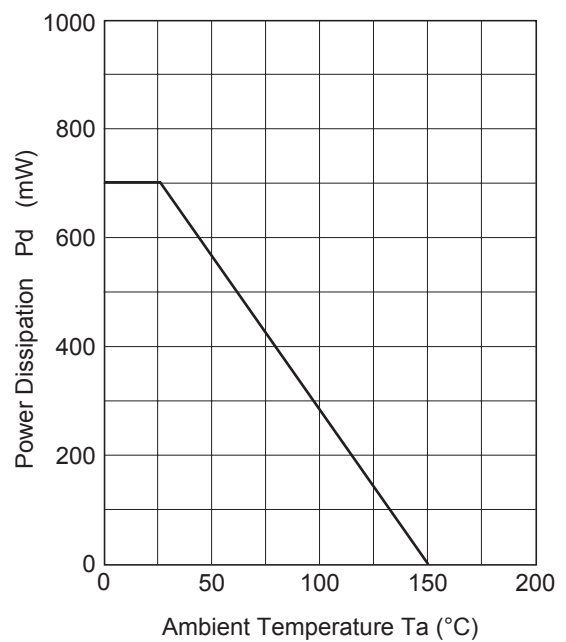
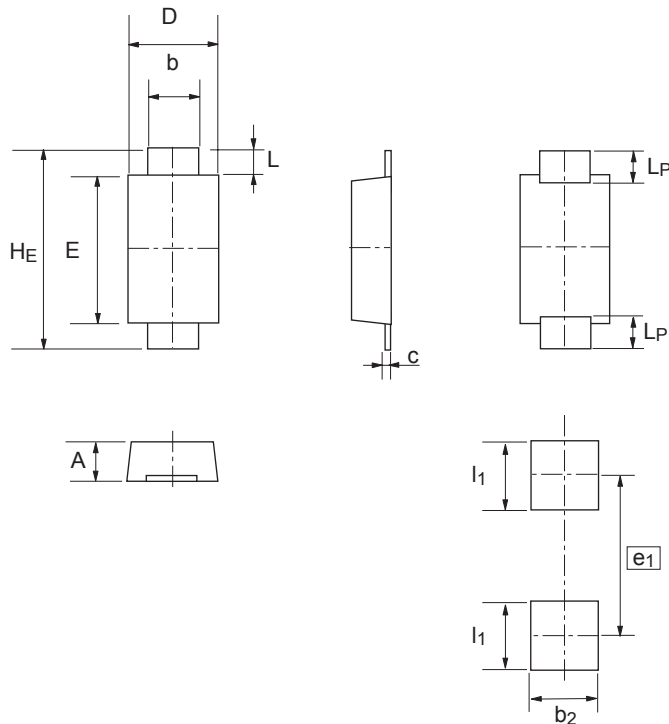


Fig.3 Power Dissipation vs. Ambient Temperature

### Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SRP-F	—	PWSF0002ZB-A	SRP-FV	0.0084g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.6	0.7	0.8
b	0.8	0.9	1.0
c	0.08	0.13	0.18
D	1.5	1.6	1.7
E	2.5	2.6	2.7
$H_E$	3.3	3.5	3.7
L	0.35	0.45	0.55
$L_P$	—	0.600	—
$b_2$	—	1.2	—
$e_1$	—	2.8	—
$l_1$	—	1.2	—

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