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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

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

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RKZ-KK Series

Silicon Planar Zener Diode for Surge Absorption and Stabilizer

REJ03G1518-0100

Rev.1.00

Mar 02, 2007

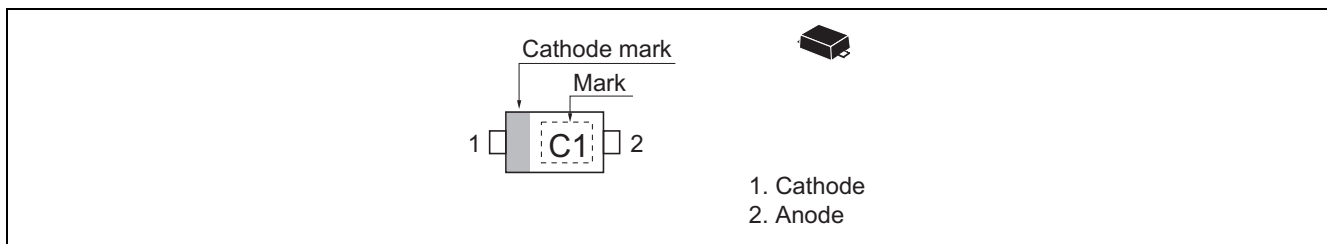
Features

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

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKZ-KK Series	Let to Mark Code	SFP	PUSF0002ZB-A

Pin Arrangement



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 _R (μA)	Test Condition	r _d (Ω)	Test Condition	— (kV) *2
	Min	Max	I _Z (mA)	Max	V _R (V)	Max	I _Z (mA)	Min
RKZ2.0BKK	1.90	2.20	5	120	0.5	100	5	30
RKZ2.2BKK	2.10	2.40	5	120	0.7	100	5	30
RKZ2.4BKK	2.30	2.60	5	120	1.0	100	5	30
RKZ2.7B2KK	2.65	2.90	5	120	1.0	110	5	30
RKZ3.0B2KK	2.95	3.20	5	50	1.0	120	5	30
RKZ3.3B2KK	3.25	3.50	5	20	1.0	130	5	30
RKZ3.6B2KK	3.55	3.80	5	10	1.0	130	5	30
RKZ3.9B2KK	3.87	4.10	5	10	1.0	130	5	30
RKZ4.3B2KK	4.15	4.34	5	10	1.0	130	5	30
RKZ4.7B2KK	4.55	4.75	5	10	1.0	130	5	30
RKZ5.1B2KK	4.98	5.20	5	5	1.5	130	5	30
RKZ5.6B2KK	5.49	5.73	5	5	2.5	80	5	30
RKZ6.2B2KK	6.06	6.33	5	2	3.0	50	5	30
RKZ6.8B2KK	6.65	6.93	5	2	3.5	30	5	30
RKZ7.5B2KK	7.28	7.60	5	2	4.0	30	5	30
RKZ8.2B2KK	8.02	8.36	5	2	5.0	30	5	30
RKZ9.1B2KK	8.85	9.23	5	2	6.0	30	5	30
RKZ10B2KK	9.77	10.21	5	2	7.0	30	5	30
RKZ11B2KK	10.76	11.22	5	2	8.0	30	5	30
RKZ12B2KK	11.74	12.24	5	2	9.0	35	5	30
RKZ13B2KK	12.91	13.49	5	2	10.0	35	5	30
RKZ15B2KK	14.34	14.98	5	2	11.0	40	5	25
RKZ16B2KK	15.85	16.51	5	2	12.0	40	5	25
RKZ18B2KK	17.56	18.35	5	2	13.0	45	5	25
RKZ20B2KK	19.52	20.39	5	2	15.0	50	5	20
RKZ22B2KK	21.54	22.47	5	2	17.0	55	5	20
RKZ24B2KK	23.72	24.78	5	2	19.0	60	5	15
RKZ27BKK	25.10	28.90	2	2	21.0	70	2	15
RKZ30BKK	28.00	32.00	2	2	23.0	80	2	13
RKZ33BKK	31.00	35.00	2	2	25.0	80	2	8
RKZ36BKK	34.00	38.00	2	2	27.0	90	2	8

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

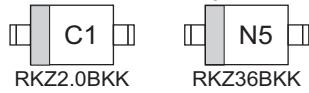
2. C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse
Failure criterion ; According to IR spec

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.
RKZ2.0BKK	C1	RKZ9.1B2KK	G3
RKZ2.2BKK	C2	RKZ10B2KK	G6
RKZ2.4BKK	C3	RKZ11B2KK	G9
RKZ2.7B2KK	C5	RKZ12B2KK	J3
RKZ3.0B2KK	C7	RKZ13B2KK	J6
RKZ3.3B2KK	C9	RKZ15B2KK	J9
RKZ3.6B2KK	D2	RKZ16B2KK	M3
RKZ3.9B2KK	D4	RKZ18B2KK	M6
RKZ4.3B2KK	D6	RKZ20B2KK	M9
RKZ4.7B2KK	D9	RKZ22B2KK	P3
RKZ5.1B2KK	E3	RKZ24B2KK	P6
RKZ5.6B2KK	E6	RKZ27BKK	P8
RKZ6.2B2KK	E9	RKZ30BKK	P9
RKZ6.8B2KK	F3	RKZ33BKK	N4
RKZ7.5B2KK	F6	RKZ36BKK	N5
RKZ8.2B2KK	F9		

Note: 1. Example of Marking



Main Characteristic

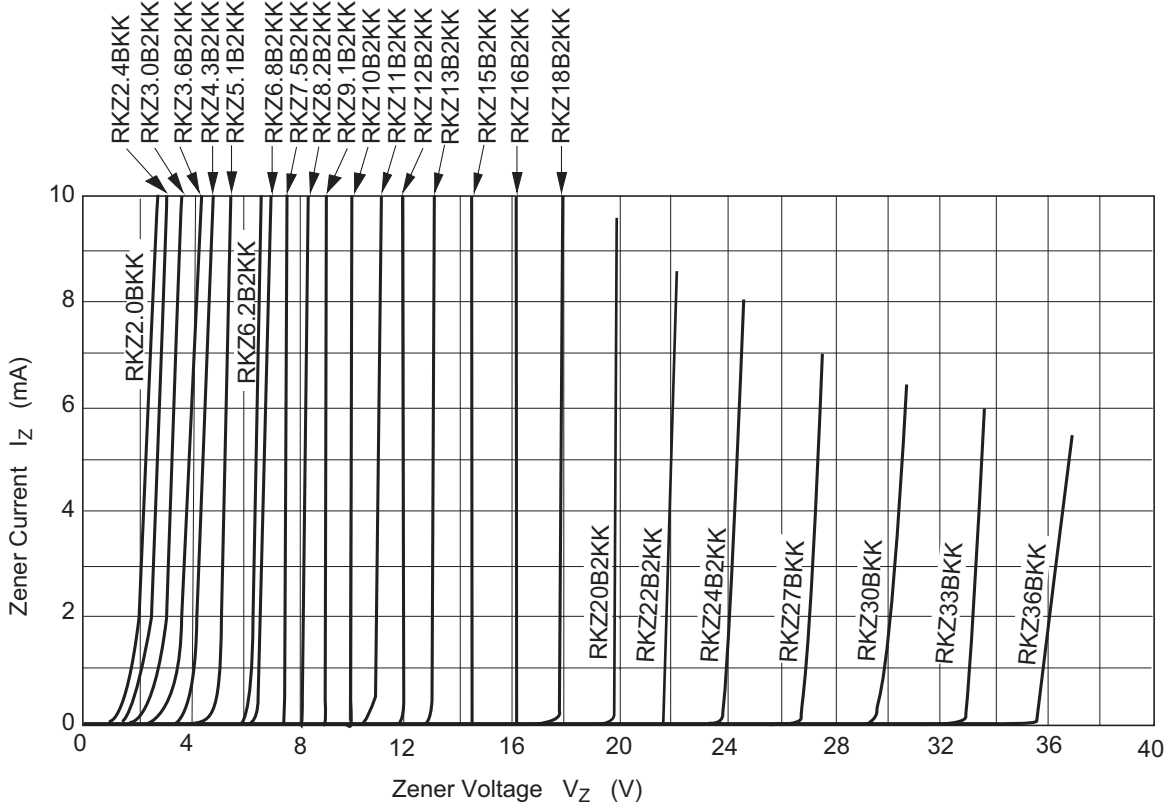


Fig.1 Zener current vs. Zener voltage

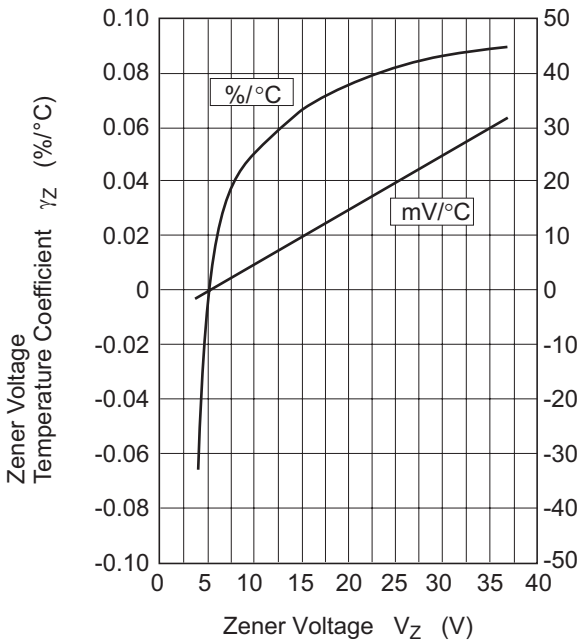


Fig.2 Temperature Coefficient vs. Zener voltage

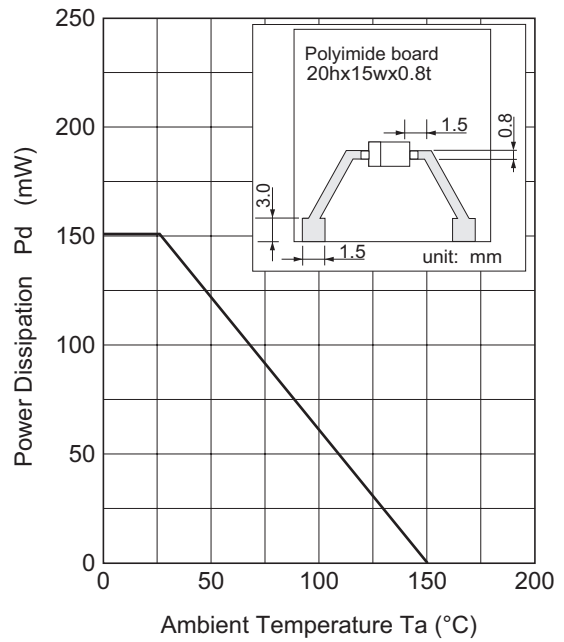
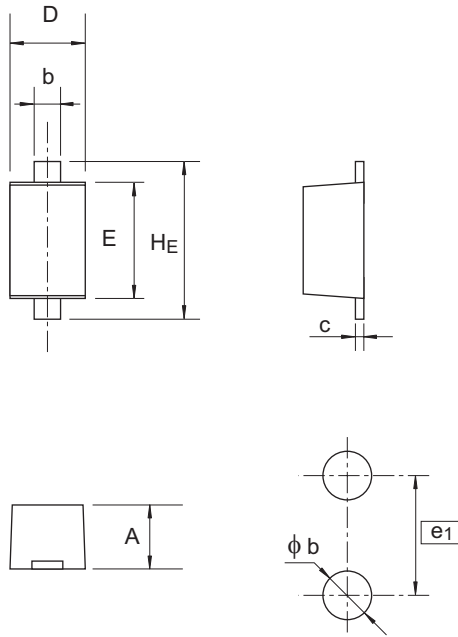


Fig.3 Power Dissipation vs. Ambient Temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SFP	—	PUSF0002ZB-A	SFP / SFPV	0.0010g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.50	—	0.55
b	0.25	0.30	0.35
c	0.08	0.13	0.18
D	0.55	0.60	0.65
E	0.90	1.00	1.10
HE	1.30	1.40	1.50
phi b	—	0.50	—
e1	—	1.40	—

Notes:

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