To our customers,

Old Company Name in Catalogs and Other Documents

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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-KL Series

Silicon Planar Zener Diode for Surge Absorption and Stabilizer

REJ03G1519-0100
Rev.1.00
May 09, 2007

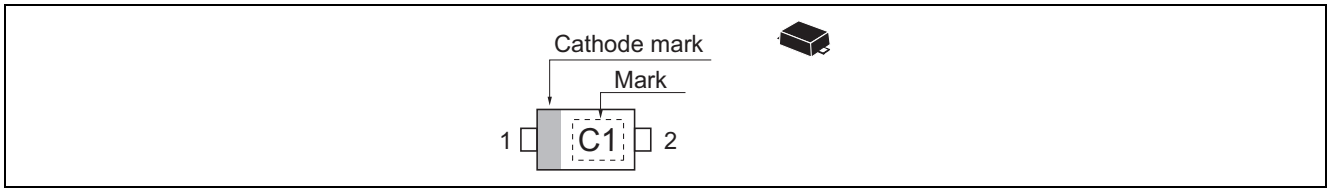
Features

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

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKZ-KL Series	Let to Mark Code	EFP	PXSF0002ZA-A

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd *[1]	100	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]
	V_Z (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
RKZ2.0BKL	1.90	2.20	5	120	0.5	100	5	30
RKZ2.2BKL	2.10	2.40	5	120	0.7	100	5	30
RKZ2.4BKL	2.30	2.60	5	120	1.0	100	5	30
RKZ2.7B2KL	2.65	2.90	5	120	1.0	110	5	30
RKZ3.0B2KL	2.95	3.20	5	50	1.0	120	5	30
RKZ3.3B2KL	3.25	3.50	5	20	1.0	130	5	30
RKZ3.6B2KL	3.55	3.80	5	10	1.0	130	5	30
RKZ3.9B2KL	3.87	4.10	5	10	1.0	130	5	30
RKZ4.3B2KL	4.15	4.34	5	10	1.0	130	5	30
RKZ4.7B2KL	4.55	4.75	5	10	1.0	130	5	30
RKZ5.1B2KL	4.98	5.20	5	5	1.5	130	5	30
RKZ5.6B2KL	5.49	5.73	5	5	2.5	80	5	30
RKZ6.2B2KL	6.06	6.33	5	2	3.0	50	5	30
RKZ6.8B2KL	6.65	6.93	5	2	3.5	30	5	30
RKZ7.5B2KL	7.28	7.60	5	2	4.0	30	5	30
RKZ8.2B2KL	8.02	8.36	5	2	5.0	30	5	30
RKZ9.1B2KL	8.85	9.23	5	2	6.0	30	5	30
RKZ10B2KL	9.77	10.21	5	2	7.0	30	5	30
RKZ11B2KL	10.76	11.22	5	2	8.0	30	5	30
RKZ12B2KL	11.74	12.24	5	2	9.0	35	5	30
RKZ13B2KL	12.91	13.49	5	2	10.0	35	5	30
RKZ15B2KL	14.34	14.98	5	2	11.0	40	5	25
RKZ16B2KL	15.85	16.51	5	2	12.0	40	5	25
RKZ18B2KL	17.56	18.35	2	2	13.0	45	2	25
RKZ20B2KL	19.52	20.39	2	2	15.0	50	2	20
RKZ22B2KL	21.54	22.47	2	2	17.0	55	2	20
RKZ24B2KL	23.72	24.78	2	2	19.0	60	2	15
RKZ27BKL	25.10	28.90	2	2	21.0	70	2	15
RKZ30BKL	28.00	32.00	2	2	23.0	80	2	13
RKZ33BKL	31.00	35.00	2	2	25.0	80	2	8
RKZ36BKL	34.00	38.00	2	2	27.0	90	2	8

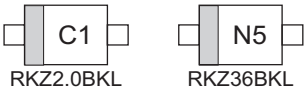
Notes: 1. Tested with pulse (Pw = 40 ms).

2. C =150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse
   Failure criterion ; According to IR spec
3. For EFP package, the material of lead is exposed for cutting plane. There for, 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.
RKZ2.0BKL	C1	RKZ9.1B2KL	G3
RKZ2.2BKL	C2	RKZ10B2KL	G6
RKZ2.4BKL	C3	RKZ11B2KL	G9
RKZ2.7B2KL	C5	RKZ12B2KL	J3
RKZ3.0B2KL	C7	RKZ13B2KL	J6
RKZ3.3B2KL	C9	RKZ15B2KL	J9
RKZ3.6B2KL	D2	RKZ16B2KL	M3
RKZ3.9B2KL	D4	RKZ18B2KL	M6
RKZ4.3B2KL	D6	RKZ20B2KL	M9
RKZ4.7B2KL	D9	RKZ22B2KL	P3
RKZ5.1B2KL	E3	RKZ24B2KL	P6
RKZ5.6B2KL	E6	RKZ27BKL	P8
RKZ6.2B2KL	E9	RKZ30BKL	P9
RKZ6.8B2KL	F3	RKZ33BKL	N4
RKZ7.5B2KL	F6	RKZ36BKL	N5
RKZ8.2B2KL	F9		

Note: 1. Example of Marking



RKZ2.0BKL RKZ36BKL

Main Characteristic

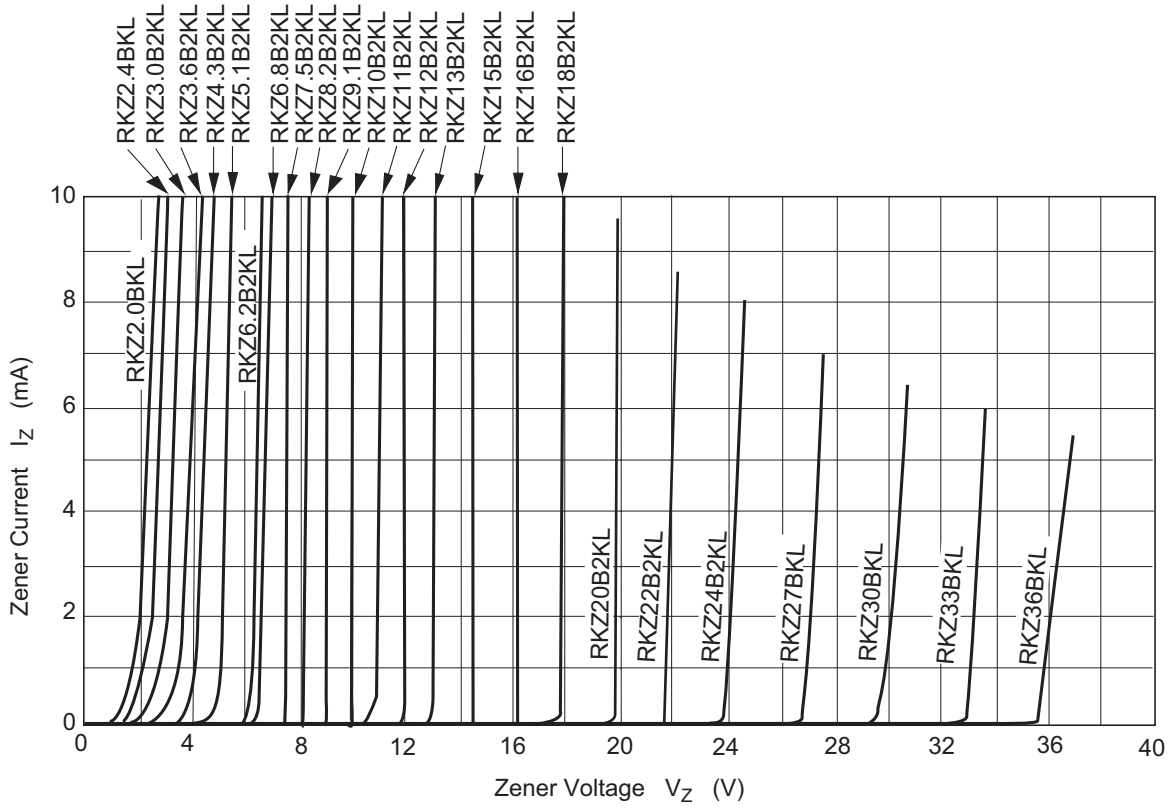


Fig.1 Zener current vs. Zener voltage

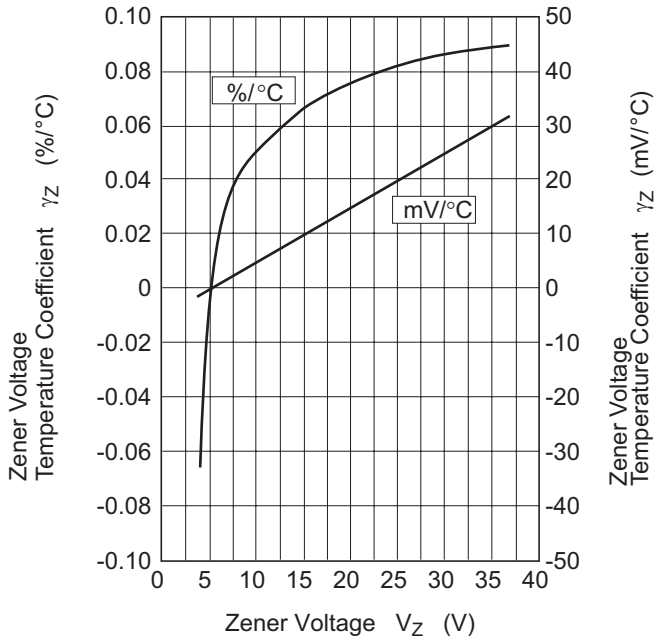


Fig.2 Temperature Coefficient vs. Zener voltage

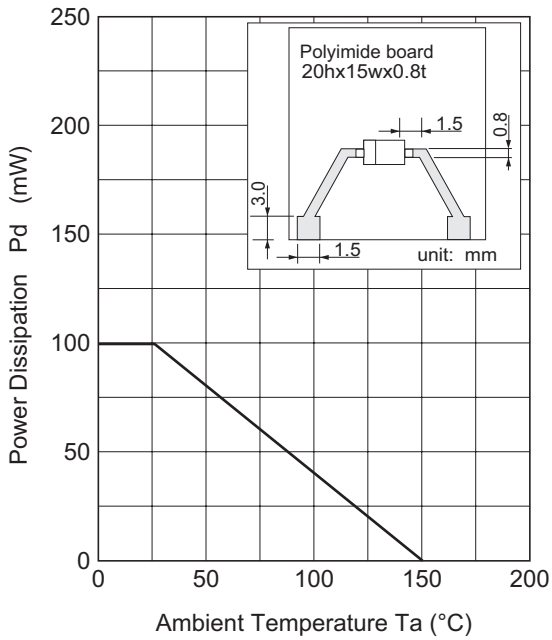
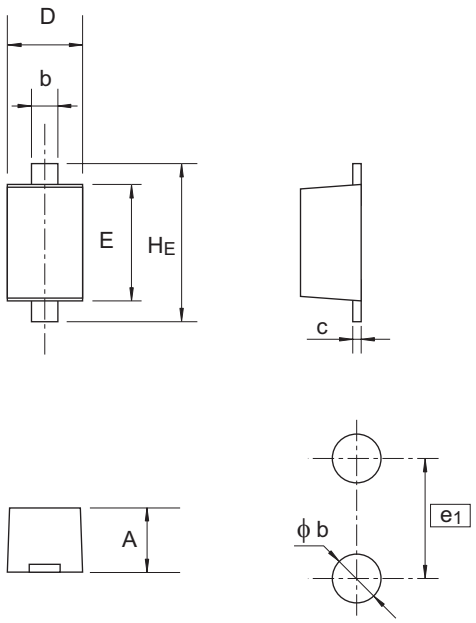


Fig.3 Power Dissipation vs. Ambient Temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
EFP	—	PXSF0002ZA-A	EFP / EFPV	0.0007g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.44	0.47	0.50
b	0.25	0.30	0.35
c	0.08	0.13	0.18
D	0.55	0.60	0.65
E	0.75	0.80	0.85
H_E	0.95	1.00	1.05
ϕ b	—	0.40	—
e1	—	1.00	—

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