

Zener diode

RLZ Series

●Applications

Constant voltage control

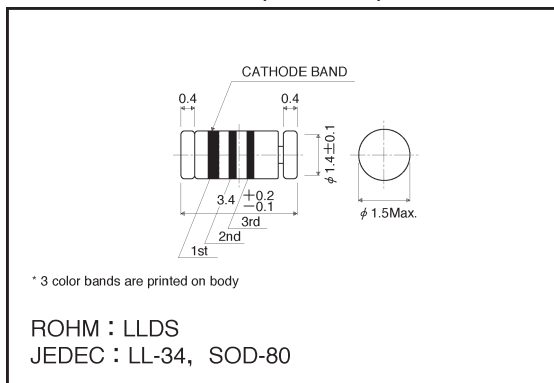
●Features

- 1) Small surface mounting type. (LLDS)
- 2) High reliability.

●Construction

Silicon epitaxial planar

●External dimensions (Units: mm)



●Cathode band colors

Type	1st color band	2nd color band	3rd color band	Type	1st color band	2nd color band	3rd color band
RLZ 2.0	Black	Brown	※ A : Yellow B : Green C : Blue D : White	RLZ 9.1	Brown	Purple	※ A : Yellow B : Green C : Blue D : White
RLZ 2.2	Black	Red		RLZ 10	Brown	Gray	
RLZ 2.4	Black	Orange		RLZ 11	Brown	White	
RLZ 2.7	Black	Yellow		RLZ 12	Red	Black	
RLZ 3.0	Black	Green		RLZ 13	Red	Brown	
RLZ 3.3	Black	Blue		RLZ 15	Red	Red	
RLZ 3.6	Black	Purple		RLZ 16	Red	Orange	
RLZ 3.9	Black	Gray		RLZ 18	Red	Yellow	
RLZ 4.3	Black	White		RLZ 20	Red	Green	
RLZ 4.7	Brown	Black		RLZ 22	Red	Blue	
RLZ 5.1	Brown	Brown		RLZ 24	Red	Purple	
RLZ 5.6	Brown	Red		RLZ 27	Red	Gray	
RLZ 6.2	Brown	Orange		RLZ 30	Red	White	
RLZ 6.8	Brown	Yellow		RLZ 33	Orange	Black	
RLZ 7.5	Brown	Green		RLZ 36	Orange	Brown	
RLZ 8.2	Brown	Blue		RLZ 39	Orange	Red	

※Products are grouped into colors A, B, C, and D, and listed in order within each group.
For RLZ2.0A, 3rd color band is yellow.

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limite	Unit
Power dissipation	P	500	mW
Junction temperature	T _j	175	°C
Storage temperature	T _{stg}	−65~+175	°C

●Electrical characteristics (Ta = 25°C)

Type	Zener voltage				Operating resistance		Rising operating resistance		Reverse current	
	Rank	Vz (V)			Zz (Ω)		Zzk (Ω)		I _R (μA)	
		Min.	Max.	I _Z (mA)	Max.	I _Z (mA)	Max.	I _Z (mA)	Max.	V _R (V)
RLZ 2.0	A	1.880	2.100	20	140	20	2000	1	120	0.5
	B	2.020	2.200							
RLZ 2.2	A	2.120	2.300	20	120	20	2000	1	120	0.7
	B	2.220	2.410							
RLZ 2.4	A	2.330	2.520	20	100	20	2000	1	120	1.0
	B	2.430	2.630							
RLZ 2.7	A	2.540	2.750	20	100	20	1000	1	100	1.0
	B	2.690	2.910							
RLZ 3.0	A	2.850	3.070	20	80	20	1000	1	50	1.0
	B	3.010	3.220							
RLZ 3.3	A	3.160	3.380	20	70	20	1000	1	20	1.0
	B	3.320	3.530							
RLZ 3.6	A	3.455	3.695	20	60	20	1000	1	10	1.0
	B	3.600	3.845							
RLZ 3.9	A	3.74	4.01	20	50	20	1000	1	5	1.0
	B	3.89	4.16							
RLZ 4.3	A	4.04	4.29	20	40	20	1000	1	5	1.0
	B	4.17	4.43							
	C	4.30	4.57							
RLZ 4.7	A	4.44	4.68	20	25	20	900	1	5	1.0
	B	4.55	4.80							
	C	4.68	4.93							
RLZ 5.1	A	4.81	5.07	20	20	20	800	1	5	1.5
	B	4.94	5.20							
	C	5.09	5.37							
RLZ 5.6	A	5.28	5.55	20	13	20	500	1	5	2.5
	B	5.45	5.73							
	C	5.61	5.91							
RLZ 6.2	A	5.78	6.09	20	10	20	300	1	5	3.0
	B	5.96	6.27							
	C	6.12	6.44							
RLZ 6.8	A	6.29	6.63	20	8	20	150	0.5	2	3.5
	B	6.49	6.83							
	C	6.66	7.01							
RLZ 7.5	A	6.85	7.22	20	8	20	120	0.5	0.5	4.0
	B	7.07	7.45							
	C	7.29	7.67							
RLZ 8.2	A	7.53	7.92	20	8	20	120	0.5	0.5	5.0
	B	7.78	8.19							
	C	8.03	8.45							
RLZ 9.1	A	8.29	8.73	20	8	20	120	0.5	0.5	6.0
	B	8.57	9.01							
	C	8.83	9.30							
RLZ 10	A	9.12	9.59	20	8	20	120	0.5	0.2	7.0
	B	9.41	9.90							
	C	9.70	10.20							
	D	9.94	10.44							
RLZ 11	A	10.18	10.71	10	10	10	120	0.5	0.2	8.0
	B	10.50	11.05							
	C	10.82	11.38							
RLZ 12	A	11.13	11.71	10	12	10	110	0.5	0.2	9.0
	B	11.44	12.03							
	C	11.74	12.35							
RLZ 13	A	12.11	12.75	10	14	10	110	0.5	0.2	10
	B	12.55	13.21							
	C	12.99	13.66							

●Electrical characteristics (Ta = 25°C)

Type	Zener voltage				Operating resistance		Rising operating resistance		Reverse current	
	Rank	Vz (V)			Zz (Ω)		Zzk (Ω)		IR (μA)	
		Min.	Max.	Iz (mA)	Max.	Iz (mA)	Max.	Iz (mA)	Max.	VR (V)
RLZ 15	A	13.44	14.13	10	16	10	110	0.5	0.2	11
	B	13.89	14.62							
	C	14.35	15.09							
RLZ 16	A	14.80	15.57	10	18	10	150	0.5	0.2	12
	B	15.25	16.04							
	C	15.69	16.51							
RLZ 18	A	16.22	17.06	10	23	10	150	0.5	0.2	13
	B	16.82	17.70							
	C	17.42	18.33							
RLZ 20	A	18.02	18.96	10	28	10	200	0.5	0.2	15
	B	18.63	19.59							
	C	19.23	20.22							
	D	19.72	20.72							
RLZ 22	A	20.15	21.20	5	30	5	200	0.5	0.2	17
	B	20.64	21.71							
	C	21.08	22.17							
	D	21.52	22.63							
RLZ 24	A	22.05	23.18	5	35	5	200	0.5	0.2	19
	B	22.61	23.77							
	C	23.12	24.31							
	D	23.63	24.85							
RLZ 27	A	24.26	25.52	5	45	5	250	0.5	0.2	21
	B	24.97	26.26							
	C	25.63	26.95							
	D	26.29	27.64							
RLZ 30	A	26.99	28.39	5	55	5	250	0.5	0.2	23
	B	27.70	29.13							
	C	28.36	29.82							
	D	29.02	30.51							
RLZ 33	A	29.68	31.22	5	65	5	250	0.5	0.2	25
	B	30.32	31.88							
	C	30.90	32.50							
	D	31.49	33.11							
RLZ 36	A	32.14	33.79	5	75	5	250	0.5	0.2	27
	B	32.79	34.49							
	C	33.40	35.13							
	D	34.01	35.77							
RLZ 39	A	34.68	36.47	5	85	5	250	0.5	0.2	30
	B	35.36	37.19							
	C	36.00	37.85							
	D	36.63	38.52							

Note (1). The Zener voltage is measured 40 ms after power is supplied.
 (2). Specify Zener voltage rank (A, B or C) when ordering parts.

●Electrical characteristic curves

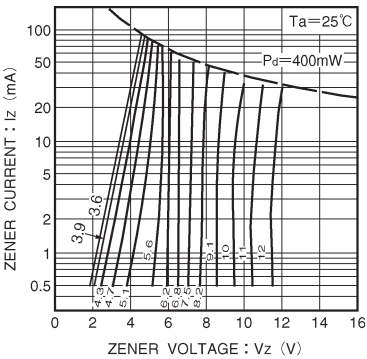


Fig. 1 RLZ3.9~RLZ12 Zener characteristics

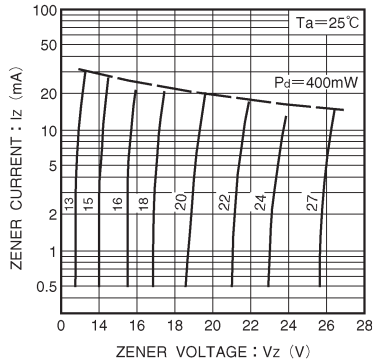


Fig. 2 RLZ13~RLZ27 Zener characteristics

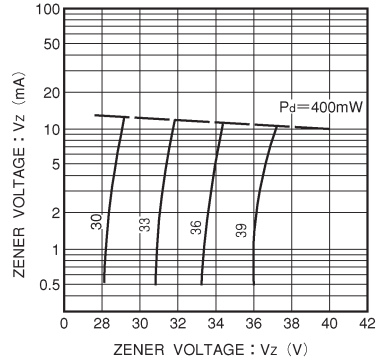


Fig. 3 RLZ30~RLZ39 Zener characteristics

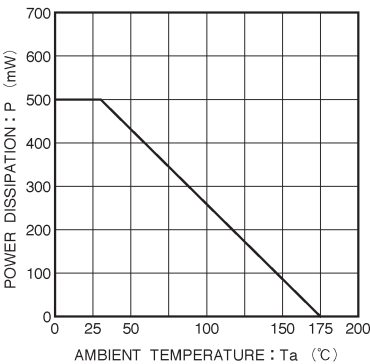


Fig. 4 Derating curve