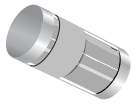
Surface Mount Zener Diodes

COMCHIP
SMD DIODE SPECIALIST

CZRL4728 Thru CZRL4764

Voltage: 3.3 - 100 Volts
Power: 1 Watt

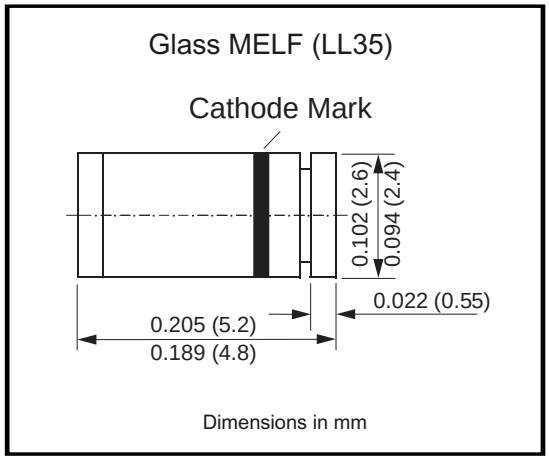


Features

Silicon Planar Power Zener Diodes

For use in stabilizing and clipping circuits with higher power rating.

Standard Zener voltage tolerance is ±10%. Add suffix "A" for ±5% tolerance. Other Zener voltages and tolerances are available upon request.



Mechanical data

Case: MELF Glass Case

Weight: approx. 0.25g

Maximum Ratings and Electrical Characterics

Parameter	Symbol	Value	Unit
Zener Current (see Table "Characteristics")			
Power Dissipation at Tamb = 25°C	P_{tot}	1.0(1)	W
Thermal Resistance Junction to Ambient Air	R_{JA}	170(1)	°C/W
Junction Temperature	Tj	200	°C
Storage Temperature Range	T_S	–65 to +200	°C

Note: (1) Valid provided that electrodes are kept at ambient temperature

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Type No.	Nominal Zener Voltage at I_{ZT} VZ (V) (Note 3.)	Test current I_{ZT} (mA)	Maximum Zener Impedance (Note 1.)			Max reverse Leakage Current		Surge Current at T_A = 25°C Ir(mA)	Maximum Regulator Current I_{ZM} (mA) (Note 2.)
			Z_{ZT} at I_{ZT} (Ohm)	at Z_{ZK} (Ohm)	at I_{ZK} (mA)	at I_R (uA)	at V_R (V)		
CZRL4728	3.3	76	10	400	1	100	1	1380	276
CZRL4729	3.6	69	10	400	1	100	1	1260	252
CZRL4730	3.9	64	9	400	1	50	1	1190	234
CZRL4731	4.3	58	9	400	1	10	1	1070	217
CZRL4732	4.7	53	8	500	1	10	1	970	193
CZRL4733	5.1	49	7	550	1	10	1	890	178
CZRL4734	5.6	45	5	600	1	10	2	810	162
CZRL4735	6.2	41	2	700	1	10	3	730	146
CZRL4736	6.8	37	3.5	700	1	10	4	660	133
CZRL4737	7.5	34	4	700	0.5	10	5	605	121
CZRL4738	8.2	31	4.5	700	0.5	10	6	550	110
CZRL4739	9.1	28	5	700	0.5	10	7	500	100
CZRL4740	10	25	7	700	0.25	10	7.6	454	91
CZRL4741	11	23	8	700	0.25	5	8.4	414	83
CZRL4742	12	21	9	700	0.25	5	9.1	380	76
CZRL4743	13	19	10	700	0.25	5	9.9	344	69
CZRL4744	15	17	14	700	0.25	5	11.4	304	61
CZRL4745	16	15.5	16	700	0.25	5	12.2	285	57
CZRL4746	18	14	20	750	0.25	5	13.7	250	50
CZRL4747	20	12.5	22	750	0.25	5	15.2	225	45
CZRL4748	22	11.5	23	750	0.25	5	16.7	205	41
CZRL4749	24	10.5	25	750	0.25	5	18.2	190	38
CZRL4750	27	9.5	35	750	0.25	5	20.6	170	34
CZRL4751	30	8.5	40	1000	0.25	5	22.8	150	30
CZRL4752	33	7.5	45	1000	0.25	5	25.1	135	27
CZRL4753	36	7	50	1000	0.25	5	27.4	125	25
CZRL4754	39	6.5	60	1000	0.25	5	29.7	115	23
CZRL4755	43	6	70	1500	0.25	5	32.7	110	22
CZRL4756	47	5.5	80	1500	0.25	5	35.8	95	19
CZRL4757	51	5	95	1500	0.25	5	38.8	90	18
CZRL4758	56	4.5	110	2000	0.25	5	42.6	80	16
CZRL4759	62	4	125	2000	0.25	5	47.1	70	14
CZRL4760	68	3.7	150	2000	0.25	5	51.7	65	13
CZRL4761	75	3.3	175	2000	0.25	5	56	60	12
CZRL4762	82	3	200	3000	0.25	5	62.2	55	11
CZRL4763	91	2.8	250	3000	0.25	5	69.2	50	10
CZRL4764	100	2.5	350	3000	0.25	5	76	45	9

Notes: (1) The Zener impedance is derived from the 1KHZ AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (IZTor IZK) is superimposed on IZT or IZK. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units

(2) Valid provided that electrodes at a distance of 10mm from case are kept at ambient temperature

(3) Measured under thermal equilibrium and DC test conditions.

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Rating and Characteristic Curves (CZRL4728 Thru CZRL4764)

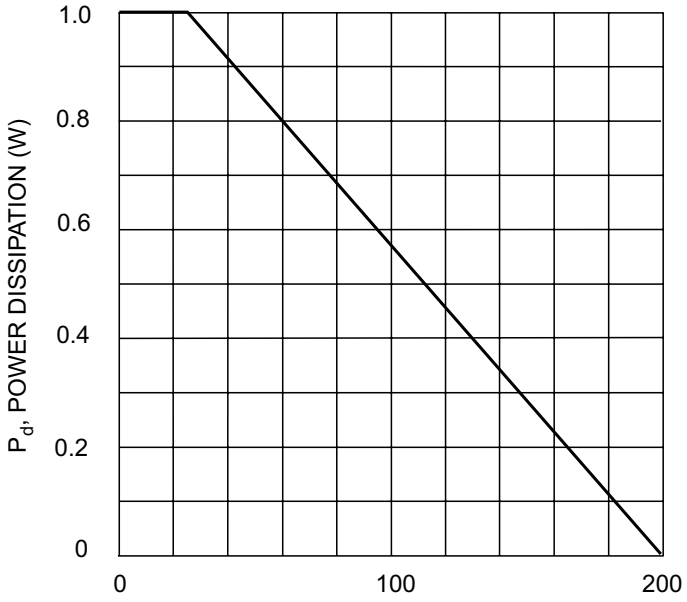
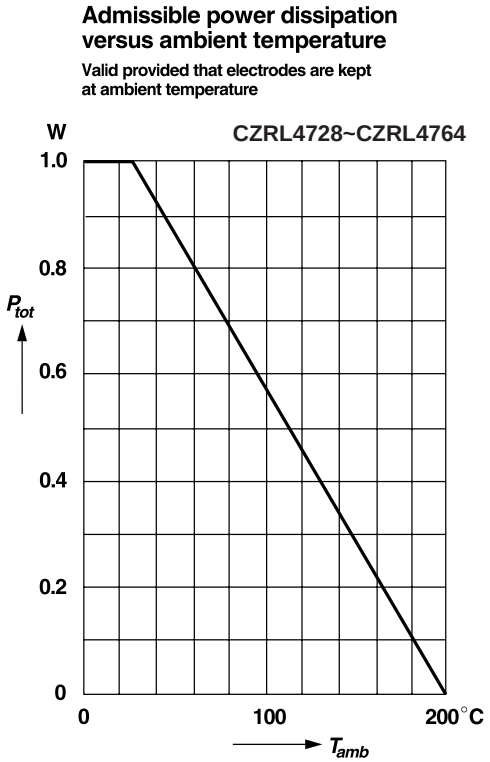


Fig. 1, Power Derating Curve



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