

Surface Mount Zener Diodes

CZRL5225 Thru CZRL5267

Voltage: 3.0 - 75 Volts

Power: 500 mW

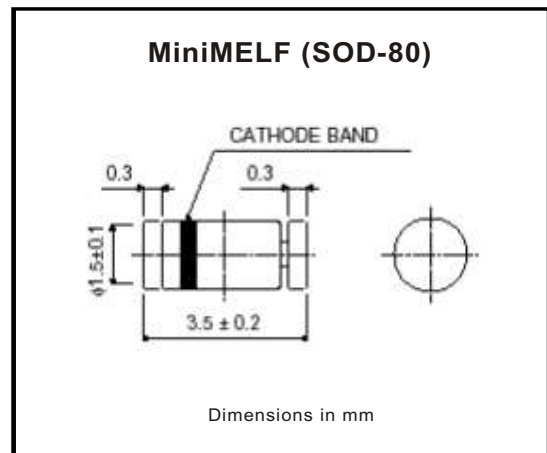
Features

- Silicon Planar Power Zener Diodes
- For use in stabilizing and clipping circuits with higher power rating.
- Standard Zener voltage tolerance is $\pm 5\%$ with a "B" suffix.

Mechanical data

Case: MiniMELF Glass Case (SOD-80)

Weight: approx. 0.05g



Maximum Ratings and Electrical Characteristics

Parameter	Symbol	Value	Unit
Zener Current (see Table "Characteristics")			
Power Dissipation at Tamb = 25°C	P _{tot}	500 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	R _{JA}	300 ⁽¹⁾	°C/W
Junction Temperature	T _J	175	°C
Storage Temperature Range	T _S	-65 to +150	°C

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

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted) Max. VF = 1.25Volts at IF = 200mA

Type No.	Nominal Zener Voltage at I_{ZT} V_Z (V) (Note 3.)	Test current I_{ZT} (mA)	Maximum Zener Impedance (Note 2.)		Typical Temperature Coefficient v_z (%/°C)	Max reverse Leakage Current		Maximum Regulator Current I_{ZM} (mA) (Note 2.)
			at I_{ZT} Z_{ZT} (ohm)	at $I_{ZK} = 0.25mA$ Z_{ZK} (ohm)		I_R (uA)	V_R (V)	
CZRL5225B	3	20	29	1600	-0.075	50	1	152
CZRL5226B	3.3	20	28	1600	-0.070	25	1	138
CZRL5227B	3.6	20	24	1700	-0.065	15	1	126
CZRL5228B	3.9	20	23	1900	-0.060	10	1	115
CZRL5229B	4.3	20	22	2000	-0.055	5	1	106
CZRL5230B	4.7	20	19	1900	±0.030	5	2	97
CZRL5231B	5.1	20	17	1600	±0.030	5	2	89
CZRL5232B	5.6	20	11	1600	+0.038	5	3	81
CZRL5233B	6	20	7	1600	+0.038	5	3.5	76
CZRL5234B	6.2	20	7	1000	+0.045	5	4	73
CZRL5235B	6.8	20	5	750	+0.05	3	5	67
CZRL5236B	7.5	20	6	500	+0.058	3	6	61
CZRL5237B	8.2	20	8	500	+0.062	3	6.5	55
CZRL5238B	8.7	20	8	600	+0.065	3	6.5	52
CZRL5239B	9.1	20	10	600	+0.068	3	7	50
CZRL5240B	10	20	17	600	+0.075	3	8	45
CZRL5241B	11	20	22	600	+0.076	2	8.4	41
CZRL5242B	12	20	30	600	+0.077	1	9.1	38
CZRL5243B	13	9.5	13	600	+0.079	0.5	9.9	35
CZRL5244B	14	9	15	600	+0.082	0.1	10	32
CZRL5245B	15	8.5	16	600	+0.082	0.1	11	30
CZRL5246B	16	7.8	17	600	+0.083	0.1	12	28
CZRL5247B	17	7.4	19	600	+0.084	0.1	13	27
CZRL5248B	18	7	21	600	+0.085	0.1	14	25
CZRL5249B	19	6.6	23	600	+0.086	0.1	14	24
CZRL5250B	20	6.2	25	600	+0.086	0.1	15	23
CZRL5251B	22	5.6	29	600	+0.087	0.1	17	21
CZRL5252B	24	5.2	33	600	+0.087	0.1	18	19.1
CZRL5253B	25	5	35	600	+0.089	0.1	19	18.2
CZRL5254B	27	4.6	41	600	+0.09	0.1	21	16.8
CZRL5255B	28	4.5	44	600	+0.091	0.1	21	16.2
CZRL5256B	30	4.2	49	600	+0.091	0.1	23	15.1
CZRL5257B	33	3.8	58	700	+0.092	0.1	25	13.8
CZRL5258B	36	3.4	70	700	+0.093	0.1	27	12.6
CZRL5259B	39	3.2	80	800	+0.094	0.1	30	11.6
CZRL5260B	43	3	93	900	+0.095	0.1	33	10.6
CZRL5261B	47	2.7	105	1000	+0.095	0.1	36	9.7
CZRL5262B	51	2.5	125	1100	+0.096	0.1	39	8.9
CZRL5263B	56	2.2	150	1300	+0.096	0.1	43	—
CZRL5264B	60	2.1	170	1400	+0.097	0.1	46	—
CZRL5265B	62	2	185	1400	+0.097	0.1	47	—
CZRL5266B	68	1.8	230	1600	+0.097	0.1	52	—
CZRL5267B	75	1.7	270	1700	+0.098	0.1	56	—

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 (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} . 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) Tested under thermal equilibrium and DC test conditions.

Rating and Characteristic Curve (CZRL5225B Thru CZRL5267B)

(TA = 25°C unless otherwise noted)

Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept
at ambient temperature

