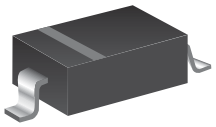
Surface Mount Zener Diodes

COMCHIP
SMD DIODE SPECIALIST

CZRW5221B-G thru CZRW5259B-G



Voltage: 2.4 ~ 39 Volts

Power: 500 mW

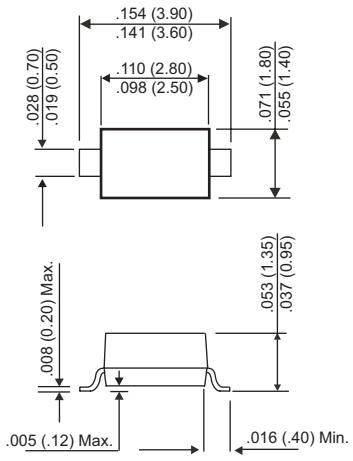
Features:

- Planar Die Constructions
- 500mW Power Dissipation
- Zener Voltages from 2.4V ~ 39V
- Ideally Suited for Automated Assembly Processes

Mechanical Data:

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram Below
- Mounting position: Any
- Approx. Weight: 0.008 gram

SOD-123



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characterics

Parameter	Symbols	Value	Units
Power Dissipation (Note A) at 75°C	P_D	500	mW
Peak Forward Surge Current Surge, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note B)	I_{FSM}	4	A
Operating Junction and Storage Temperature Range	T_j	-55 to +150	°C

Notes:
A. Mounted on 5.0mm^2(.013mm thick) land areas.
B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

"-G" suffix designated RoHS compliant version

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Maximum Ratings and Electrial Characterics

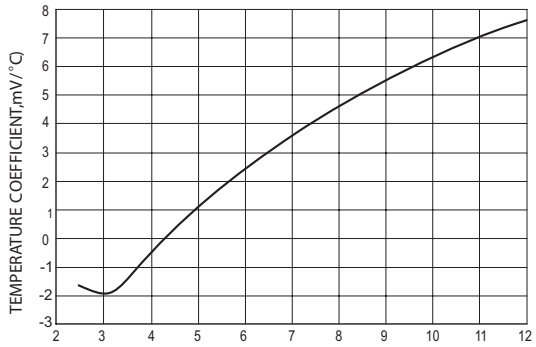
(T_A=25 unless otherwise noted) V_F=1.2V, I_F=100mA for all types

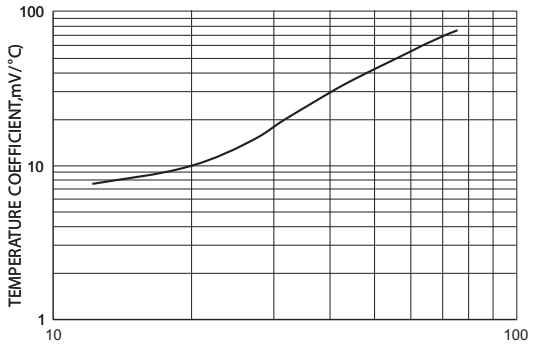
Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Zener Current
	V_Z @ I_{ZT}			Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @ V_R		I_{ZM}@ T_A
	Nom. V	Min. V	Max. V	Ohm	mA	Ohm	mA	nA	V	mA
500 mWatts Zener Diodes										
CZRW5221B-G	2.4	2.28	2.52	30	20	1200	0.25	100	1	188
CZRW5222B-G	2.5	2.38	2.63	30	20	1250	0.25	100	1	180
CZRW5223B-G	2.7	2.57	2.84	30	20	1300	0.25	75	1	167
CZRW5225B-G	3	2.85	3.15	30	20	1600	0.25	50	1	150
CZRW5226B-G	3.3	3.14	3.47	28	20	1600	0.25	25	1	138
CZRW5227B-G	3.6	3.42	3.78	24	20	1700	0.25	15	1	126
CZRW5228B-G	3.9	3.71	4.1	23	20	1900	0.25	10	1	115
CZRW5229B-G	4.3	4.09	4.52	22	20	2000	0.25	5	1	106
CZRW5230B-G	4.7	4.47	4.94	19	20	1900	0.25	5	2	97
CZRW5231B-G	5.1	4.85	5.36	17	20	1600	0.25	5	2	89
CZRW5232B-G	5.6	5.32	5.88	11	20	1600	0.25	5	3	81
CZRW5234B-G	6.2	5.89	6.51	7	20	1000	0.25	5	4	73
CZRW5235B-G	6.8	6.46	7.14	5	20	750	0.25	3	5	67
CZRW5236B-G	7.5	7.13	7.88	6	20	500	0.25	3	6	61
CZRW5237B-G	8.2	7.79	8.61	8	20	500	0.25	3	6	58
CZRW5238B-G	8.7	8.27	9.14	8	20	500	0.25	3	6.5	55
CZRW5239B-G	9.1	8.65	9.56	10	20	600	0.25	3	6.5	50
CZRW5240B-G	10	9.5	10.5	17	20	600	0.25	3	8	45
CZRW5241B-G	11	10.45	11.55	22	20	600	0.25	3	8.4	41
CZRW5242B-G	12	11.4	12.6	30	2 0	600	0.25	2	9.1	3 8
CZRW5243B-G	13	12.35	13.65	13	9.5	600	0.25	1	9.9	35
CZRW5245B-G	15	14.25	15.75	16	8.5	600	0.25	0.5	11	30
CZRW5246B-G	16	15.2	16.8	17	7.8	600	0.25	0.1	12	28
CZRW5248B-G	18	17.1	18.9	21	7	600	0.25	0.1	14	25
CZRW5250B-G	20	19	21	25	6.2	600	0.25	0.1	15	23
CZRW5251B-G	22	20.9	23.1	29	5.6	600	0.25	0.1	17	21
CZRW5252B-G	24	22.8	25.2	33	5.2	600	0.25	0.1	18	19.1
CZRW5254B-G	27	25.65	28.35	41	5	600	0.25	0.1	21	16.8
CZRW5255B-G	28	26.6	29.4	44	4.5	600	0.25	0.1	21	16.2
CZRW5256B-G	30	28.5	31.5	49	4.2	600	0.25	0.1	23	15.1
CZRW5257B-G	33	31.35	34.65	58	3.8	700	0.25	0.1	25	13.8
CZRW5258B-G	36	34.2	37.8	70	3.4	700	0.25	0.1	27	12.6
CZRW5259B-G	39	37.05	40.95	80	3.2	800	0.25	0.1	30	11.6

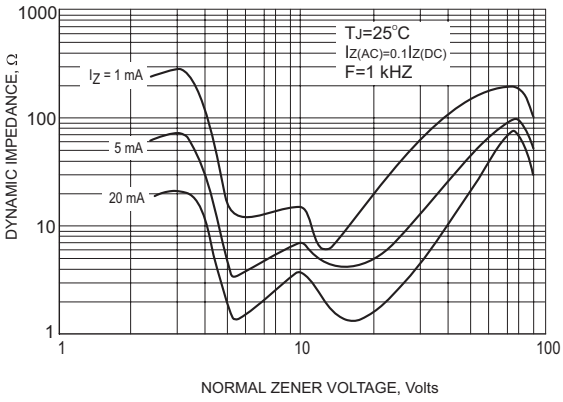
NOTE:

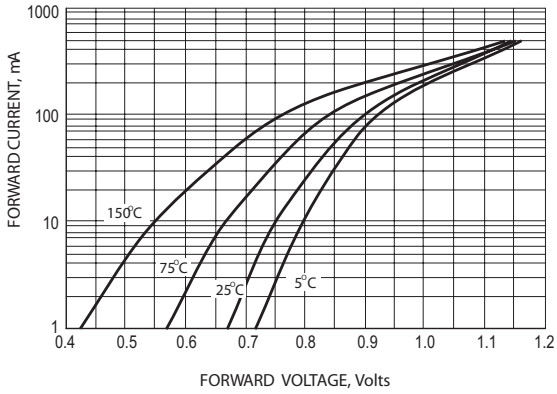
1. Tolerance and T ype Number Designation. The type numbers listed have a standard tolerance on the nominal zener voltage of ±5%.
2. Specials Available Include:
   A. Nominal zener voltages between the voltages shown and tighter voltage tolerances.
   B. Matched sets.
3. Zener V oltage (V_Z) Measurement. Guarantees the zener voltage when measured at 90 seconds while maintaining the lead temperature (T_L) at 30 °C, from the diode body .
4. Zener Impedance (Z_Z) Derivation. The zener impedance is derived from the 60 cycle ac voltage, which results when an AC current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}.
5. Surge Current (I_R) Non-Repetitive. The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, I_{ZT}, per JEDEC registration; however, actual device capability is as described in Figure 5.

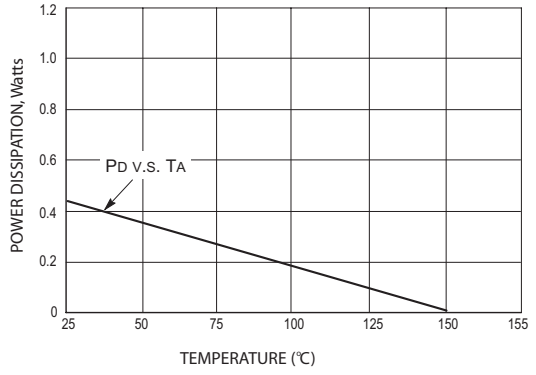
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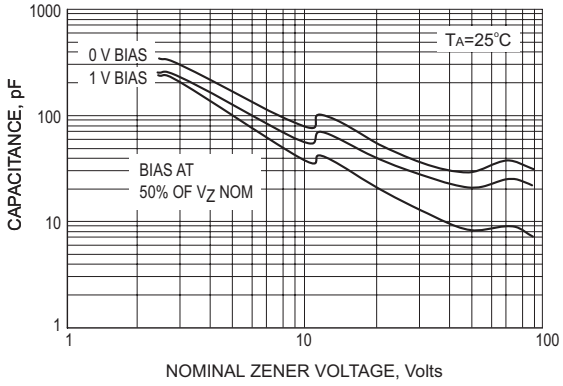












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