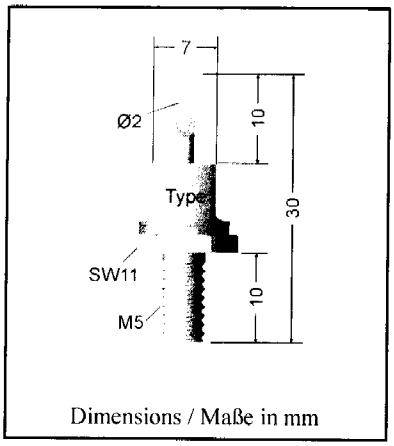
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ZX3.9 – ZX200

Silicon Power Z Diodes



Dimensions / Maße in mm

Maximum power dissipation Maximale Verlustleistung	12.5 W
Nominal Z-voltage – Nominale Z-Spannung	3.9...200 V
Metal case – Metallgehäuse	DO-4
Weight approx. – Gewicht ca.	5.5 g
Standard polarity: Index R:	Cathode to stud / Gewinde Anode to stud / Gewinde (e.g. ZX ...R)

Standard packaging: bulk
Standard Lieferform: lose im Karton

Standard Zener voltage tolerance is graded to the international E 24 (~5%) standard.
Other voltage tolerances and higher Zener voltages on request.
Die Toleranz der Zener-Spannung ist in der Standard-Ausführung gestuft nach der internationalen Reihe E 24 (~5%). Andere Toleranzen oder höhere Arbeitsspannungen auf Anfrage.

Maximum ratings

Power dissipation without cooling fin Verlustleistung ohne Kühlblech	$T_A = 25\ ^\circ C$	P_{tot}	1.6 W
Power dissipation with cooling fin 150 cm^2 Verlustleistung mit Kühlblech 150 cm^2	$T_A = 25\ ^\circ C$	P_{tot}	12.5 W
Non repetitive peak power dissipation, t < 10 ms Einmalige Impuls-Verlustleistung, t < 10 ms	$T_A = 25\ ^\circ C$	P_{ZSM}	100 W
Admissible torque for mounting on cooling fin Zulässiges Anzugsdrehmoment			1 Nm
Operating junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T_j T_S	– 55...+150°C – 55...+175°C
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R_{thA}	< 80 K/W
Thermal resistance junction to stud Wärmewiderstand Sperrschicht – Schraube		R_{thC}	< 5 K/W [1])

Zener voltages see table on next page – Zener-Spannungen siehe Tabelle auf der nächsten Seite

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ZX 3.9 ... ZX 200 (12.5 W)

Maximum ratings

Type Typ	Zener voltage [1]) Zener-Spannng.[1]) $I_Z = I_{Ztest}$ V_{Zmin} [V]	V_{Zmax}	Test current Meßstrom I_{Ztest} [mA]	Dyn. resistance Diff. Widerst. I_{ztest} / 1 kHz r_{zj} [Ω]	Temp. Coeffiz. of Z-voltage ...der Z-spannng. α_{VZ} [10^{-4}/°C]	Reverse volt. Sperrspannng. I_R = 100 nA V_R [V]	Max. Z-current Max. Z-Strom T_A = 50°C I_Z [2]) [mA]	I_Z [3])
ZX 3.9	3.7	4.1	100	3.8 (<7)	–7...+2	–	340	2700
ZX 4.3	4.0	4.6	100	3.8 (<7)	–7...+3	–	305	2400
ZX 4.7	4.4	5.0	100	3 (<6)	–7...+4	–	280	2250
ZX 5.1	4.8	5.4	100	2 (<5)	–6...+5	–	260	2000
ZX 5.6	5.2	6.0	100	1 (<3)	–3...+5	> 1.5	230	1800
ZX 6.2	5.8	6.6	100	1 (<2)	–1...+6	> 1.5	210	1700
ZX 6.8	6.4	7.2	100	1 (<2)	0...+7	> 2	195	1550
ZX 7.5	7.0	7.9	100	1 (<2)	0...+7	> 2	175	1400
ZX 8.2	7.7	8.7	100	1 (<2)	+3...+8	> 3.5	160	1250
ZX 9.1	8.5	9.6	50	2 (<4)	+3...+8	> 3.5	145	1150
ZX 10	9.4	10.6	50	2 (<4)	+5...+9	> 5	130	1050
ZX 11	10.4	11.6	50	3 (<6)	+5...+10	> 5	120	970
ZX 12	11.4	12.7	50	4 (<7)	+5...+10	> 7	110	880
ZX 13	12.4	14.1	50	5 (<9)	+5...+10	> 7	100	790
ZX 15	13.8	15.6	50	5 (<10)	+5...+10	> 10	90	720
ZX 16	15.3	17.1	25	6 (<12)	+6...+11	> 10	82	650
ZX 18	16.8	19.1	25	6 (<15)	+6...+11	> 10	74	580
ZX 20	18.8	21.2	25	6 (<15)	+6...+11	> 10	66	530
ZX 22	20.8	23.3	25	6 (<15)	+6...+11	> 12	60	480
ZX 24	22.8	25.6	25	7 (<15)	+6...+11	> 12	55	430
ZX 27	25.1	28.9	25	7 (<15)	+6...+11	> 14	49	380
ZX 30	28	32	25	8 (<15)	+6...+11	> 14	44	350
ZX 33	31	35	25	8 (<15)	+6...+11	> 17	40	320
ZX 36	34	38	10	16 (<30)	+6...+11	> 17	37	290
ZX 39	37	41	10	20 (<40)	+6...+11	> 20	34	270
ZX 43	40	46	10	24 (<40)	+7...+12	> 20	31	245
ZX 47	44	50	10	24 (<40)	+7...+12	> 24	28	225
ZX 51	48	54	10	25 (<60)	+7...+12	> 24	26	200
ZX 56	52	60	10	25 (<60)	+7...+12	> 28	23	185
ZX 62	58	66	10	25 (<80)	+8...+13	> 28	21	170
ZX 68	64	72	10	25 (<80)	+8...+13	> 34	20	155
ZX 75	70	79	10	30 (<100)	+8...+13	> 34	18	140
ZX 82	77	88	10	30 (<100)	+8...+13	> 41	16	125
ZX 91	85	96	5	40 (<150)	+9...+13	> 41	15	115
ZX 100	94	106	5	60 (<150)	+9...+13	> 50	13	105
ZX 110	104	116	5	80 (<200)	+9...+13	> 50	12	97
ZX 120	114	127	5	80 (<200)	+9...+13	> 60	11	89
ZX 130	124	141	5	90 (<250)	+9...+13	> 60	10	80
ZX 150	138	156	5	100 (<250)	+9...+13	> 75	9	72
ZX 160	153	171	5	110 (<300)	+9...+13	> 75	8	66
ZX 180	168	191	5	120 (<350)	+9...+13	> 90	7	59
ZX 200	188	212	5	150 (<350)	+9...+13	> 90	7	53

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