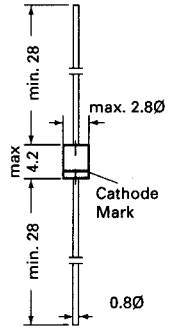
BZV85
SILICON PLANAR POWER ZENER DIODES

Silicon Planar Power Zener Diodes
for use in stabilizing and clipping circuits with high power rating. The Zenter voltages are graded according to the international E 24 standrad. Smaller voltage tolerances and higher Zener voltages on request.



Glass case JEDEC DO-41

Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation at T_{amb} = 25 °C	P_{tot}	1[1)]	W
Junction Temperature	T_j	200	°C
Storage Temperature Range	T_S	-65 to + 200	°C
[1)] Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.			

Characteristics at T_{amb} = 25 °C

	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	170[1)]	K/W
Forward Voltage at I_F = 200 mA	V_F	-	-	1.2	V
[1)] Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.					

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Type	Zener Voltage range[1]			Dynamic resistance			Reverse leakage current		Temp. coefficient of Zener Voltage
	V_{znom}	I_{ZT} for V_{ZT}[2]		r_{zjT}	r_{zjK} at I_{ZK}		I_R[2] at V_R		TK_{VZ}
	V	mA	V	Ω	Ω	mA	µA	V	%/K
BZV 85/C 2 V 7	2.7	80	2.5 ... 2.9	<20	<400	1	<150	1	-0.08 ... -0.05
BZV 85/C 3 V 0	3.0	80	2.8 ... 3.2	<20	<400	1	<100	1	-0.08 ... -0.05
BZV 85/C 3 V 3	3.3	70	3.1 ... 3.5	<20	<400	1	<40	1	-0.08 ... -0.05
BZV 85/C 3 V 6	3.6	60	3.4 ... 3.8	<15	<500	1	<20	1	-0.08 ... -0.05
BZV 85/C 3 V 9	3.9	60	3.7 ... 4.1	<15	<500	1	<10	1	-0.07 ... -0.02
BZV 85/C 4 V 3	4.3	50	4.0 ... 4.6	<13	<500	1	<3	1	-0.07 ... +0.01
BZV 85/C 4 V 7	4.7	45	4.4 ... 5.0	<13	<600	1	<3	1	-0.03 ... +0.04
BZV 85/C 5 V 1	5.1	45	4.8 ... 5.4	<10	<500	1	<1	1.5	-0.01 ... +0.04
BZV 85/C 5 V 6	5.6	45	5.2 ... 6.0	<7	<400	1	<1	2	0 ... +0.045
BZV 85/C 6 V 2	6.2	35	5.8 ... 6.6	<4	<300	1	<1	3	+0.01 ... +0.055
BZV 85/C 6 V 8	6.8	35	6.4 ... 7.2	<3.5	<300	1	<1	4	+0.015 ... +0.06
BZV 85/C 7 V 5	7.5	35	7.0 ... 7.9	<3	<200	0.5	<1	4.5	+0.02 ... +0.065
BZV 85/C 8 V 2	8.2	25	7.7 ... 8.7	<5	<200	0.5	<1	6.2	0.03 ... 0.07
BZV 85/C 9 V 1	9.1	25	8.5 ... 9.6	<5	<200	0.5	<1	6.8	0.035 ... 0.075
BZV 85/C 10	10	25	9.4 ... 10.6	<7	<200	0.5	<0.5	7	0.04 ... 0.08
BZV 85/C 11	11	20	10.4 ... 11.6	<8	<300	0.5	<0.5	8.2	0.045 ... 0.08
BZV 85/C 12	12	20	11.4 ... 12.7	<9	<350	0.5	<0.5	9.1	0.045 ... 0.085
BZV 85/C 13	13	20	12.4 ... 14.1	<10	<400	0.5	<0.5	10	0.05 ... 0.085
BZV 85/C 15	15	15	13.8 ... 15.6	<15	<500	0.5	<0.5	11	0.055 ... 0.09
BZV 85/C 16	16	15	15.3 ... 17.1	<15	<500	0.5	<0.5	12	0.055 ... 0.09
BZV 85/C 18	18	15	16.8 ... 19.1	<20	<500	0.5	<0.5	13	0.06 ... 0.09
BZV 85/C 20	20	10	18.8 ... 21.2	<24	<600	0.5	<0.5	15	0.06 ... 0.09
BZV 85/C 22	22	10	20.8 ... 23.3	<25	<600	0.5	<0.5	16	0.06 ... 0.095
BZV 85/C 24	24	10	22.8 ... 25.6	<25	<600	0.5	<0.5	18	0.06 ... 0.095
BZV 85/C 27	27	8	25.1 ... 28.9	<30	<750	0.25	<0.5	20	0.06 ... 0.095
BZV 85/C 30	30	8	28 ... 32	<30	<1000	0.25	<0.5	22	0.06 ... 0.095
BZV 85/C 33	33	8	31 ... 35	<35	<1000	0.25	<0.5	24	0.06 ... 0.095
BZV 85/C 36	36	8	34 ... 38	<40	<1000	0.25	<0.5	27	0.06 ... 0.095
BZV 85/C 39	39	6	37 ... 41	<50	<1000	0.25	<0.5	30	0.06 ... 0.095
BZV 85/C 43	43	6	40 ... 46	<50	<1000	0.25	<0.5	33	0.06 ... 0.095
BZV 85/C 47	47	4	44 ... 50	<90	<1500	0.25	<0.5	36	0.06 ... 0.095
BZV 85/C 51	51	4	48 ... 54	<115	<1500	0.25	<0.5	39	0.06 ... 0.095
BZV 85/C 56	56	4	52 ... 60	<120	<2000	0.25	<0.5	43	0.06 ... 0.095
BZV 85/C 62	62	4	58 ... 66	<125	<2000	0.25	<0.5	47	0.06 ... 0.095
BZV 85/C 68	68	4	64 ... 72	<130	<2000	0.25	<0.5	51	0.06 ... 0.095
BZV 85/C 75	75	4	70 ... 79	<135	<2000	0.25	<0.5	56	0.06 ... 0.095
BZV 85/C 82	82	2.7	77 ... 87	<200	<3000	0.25	<0.5	62	0.07 ... 0.10
BZV 85/C 91	91	2.7	85 ... 96	<250	<3000	0.25	<0.5	68	0.07 ... 0.10
BZV 85/C 100	100	2.7	94 ... 106	<350	<3000	0.25	<0.5	75	0.07 ... 0.11
BZV 85/C 110	110	2.7	104 ... 116	<450	<4000	0.25	<0.5	82	0.07 ... 0.11
BZV 85/C 120	120	2	114 ... 127	<550	<4500	0.25	<0.5	91	0.07 ... 0.11
BZV 85/C 130	130	2	124 ... 141	<700	<5000	0.25	<0.5	100	0.07 ... 0.11
BZV 85/C 150	150	2	138 ... 156	<1000	<6000	0.25	<0.5	110	0.07 ... 0.11
BZV 85/C 160	160	1.5	153 ... 171	<1100	<6500	0.25	<0.5	120	0.07 ... 0.11
BZV 85/C 180	180	1.5	168 ... 191	<1200	<7000	0.25	<0.5	130	0.07 ... 0.11
BZV 85/C 200	200	1.5	188 ... 212	<1500	<8000	0.25	<0.5	150	0.07 ... 0.11

[1] Tested with pulses tp = 20 ms.

[2] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.

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Admissible power dissipation versus ambient temperature

Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.