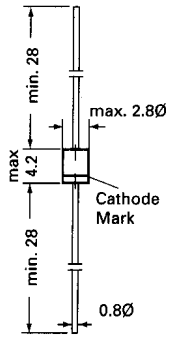
BZX 85...
SILICON PLANAR POWER ZENER DIODES

Silicon Planar Power Zener Diodes
for use in stabilizing and clipping circuits with high power rating. The Zener voltages are graded according to the international E 24 standard. Other tolerances and higher Zener voltages upon 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}	1.3[1)]	W
Junction Temperature	T_j	200	°C
Storage Temperature Range	T_S	-55 to + 200	°C
[1)] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.			

Characteristics at T_{amb} = 25 °C

	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	130[1)]	K/W
Forward Voltage at I_F = 200 mA	V_F	-	-	1	V
[1)] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.					

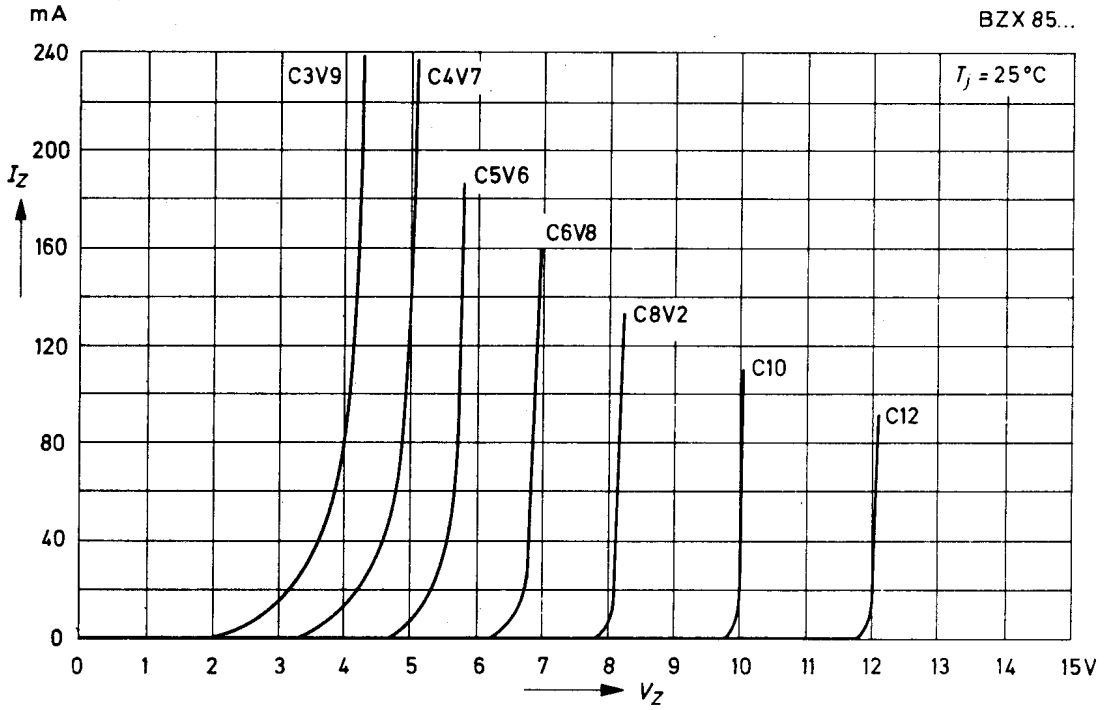
BZX 85 ...
SILICON PLANAR POWER ZENER DIODES

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

Breakdown characteristics
at T_j = constant (pulsed)



Breakdown characteristics
at T_j = constant (pulsed)