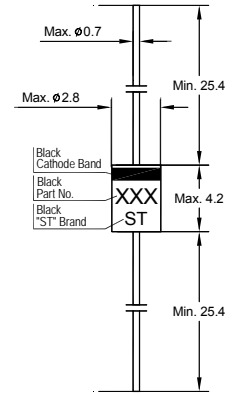


# BZX85C

## 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 are upon request.



Glass Case DO-41  
Dimensions in mm

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

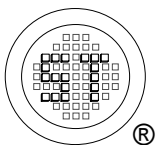
Parameter	Symbol	Value	Unit
Power Dissipation	$P_{\text{tot}}$	1.3 <sup>1)</sup>	W
Junction Temperature	$T_j$	200	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 200	$^\circ\text{C}$

<sup>1)</sup> Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{\text{thA}}$	130 <sup>1)</sup>	K/W
Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.2	V

<sup>1)</sup> Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.



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Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



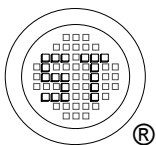
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Dated : 12/06/2007

# BZX85C

Type	Zener Voltage Range <sup>1)</sup>			Maximum Dynamic Resistance			Maximum Reverse Leakage Current	
	V <sub>Znom</sub> V	I <sub>ZT</sub> mA	for V <sub>ZT</sub> V	r <sub>ZJT</sub> Ω	r <sub>ZJK</sub> Ω	at I <sub>ZK</sub> mA	I <sub>R</sub> μA	at V <sub>R</sub> V
BZX85C2V7	2.7	80	2.5...2.9	20	400	1	150	1
BZX85C3V0	3.0	80	2.8...3.2	20	400	1	100	1
BZX85C3V3	3.3	70	3.1...3.5	20	400	1	40	1
BZX85C3V6	3.6	60	3.4...3.8	15	500	1	20	1
BZX85C3V9	3.9	60	3.7...4.1	15	500	1	10	1
BZX85C4V3	4.3	50	4...4.6	13	500	1	3	1
BZX85C4V7	4.7	45	4.4...5	13	600	1	3	1
BZX85C5V1	5.1	45	4.8...5.4	10	500	1	1	1.5
BZX85C5V6	5.6	45	5.2...6	7	400	1	1	2
BZX85C6V2	6.2	35	5.8...6.6	4	300	1	1	3
BZX85C6V8	6.8	35	6.4...7.2	3.5	300	1	1	4
BZX85C7V5	7.5	35	7...7.9	3	200	0.5	1	4.5
BZX85C8V2	8.2	25	7.7...8.7	5	200	0.5	1	6.2
BZX85C9V1	9.1	25	8.5...9.6	5	200	0.5	1	6.8
BZX85C10	10	25	9.4...10.6	7	200	0.5	0.5	7
BZX85C11	11	20	10.4...11.6	8	300	0.5	0.5	8.2
BZX85C12	12	20	11.4...12.7	9	350	0.5	0.5	9.1
BZX85C13	13	20	12.4...14.1	10	400	0.5	0.5	10
BZX85C15	15	15	13.8...15.6	15	500	0.5	0.5	11
BZX85C16	16	15	15.3...17.1	15	500	0.5	0.5	12
BZX85C18	18	15	16.8...19.1	20	500	0.5	0.5	13
BZX85C20	20	10	18.8...21.2	24	600	0.5	0.5	15
BZX85C22	22	10	20.8...23.3	25	600	0.5	0.5	16
BZX85C24	24	10	22.8...25.6	25	600	0.5	0.5	18
BZX85C27	27	8	25.1...28.9	30	750	0.25	0.5	20
BZX85C30	30	8	28...32	30	1000	0.25	0.5	22
BZX85C33	33	8	31...35	35	1000	0.25	0.5	24
BZX85C36	36	8	34...38	40	1000	0.25	0.5	27
BZX85C39	39	6	37...41	50	1000	0.25	0.5	30
BZX85C43	43	6	40...46	50	1000	0.25	0.5	33
BZX85C47	47	4	44...50	90	1500	0.25	0.5	36
BZX85C51	51	4	48...54	115	1500	0.25	0.5	39
BZX85C56	56	4	52...60	120	2000	0.25	0.5	43
BZX85C62	62	4	58...66	125	2000	0.25	0.5	47
BZX85C68	68	4	64...72	130	2000	0.25	0.5	51
BZX85C75	75	4	70...79	135	2000	0.25	0.5	56
BZX85C82	82	2.7	77...87	200	3000	0.25	0.5	62
BZX85C91	91	2.7	85...96	250	3000	0.25	0.5	68
BZX85C100	100	2.7	94...106	350	3000	0.25	0.5	75
BZX85C110	110	2.7	104...116	450	4000	0.25	0.5	82
BZX85C120	120	2	114...127	550	4500	0.25	0.5	91
BZX85C130	130	2	124...141	700	5000	0.25	0.5	100
BZX85C150	150	2	138...156	1000	6000	0.25	0.5	110
BZX85C160	160	1.5	153...171	1100	6500	0.25	0.5	120
BZX85C180	180	1.5	168...191	1200	7000	0.25	0.5	130
BZX85C200	200	1.5	188...212	1500	8000	0.25	0.5	150

<sup>1)</sup> Tested with pulses t<sub>p</sub> = 20 ms.



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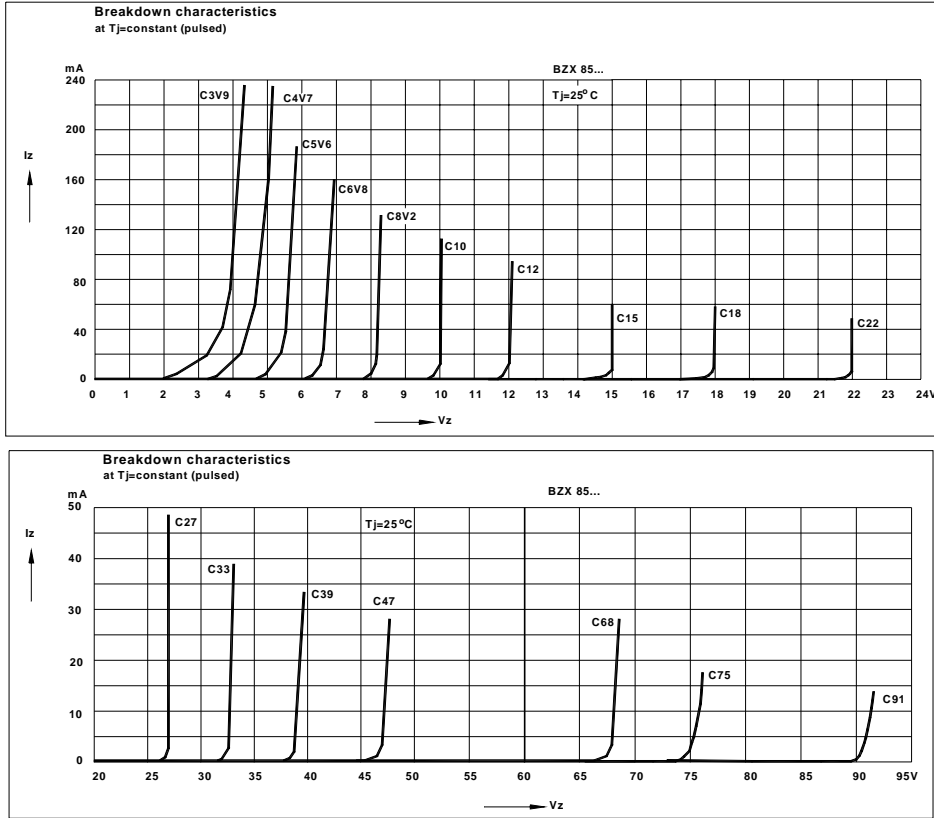
ISO 14001:2004  
Certificate No. 7116



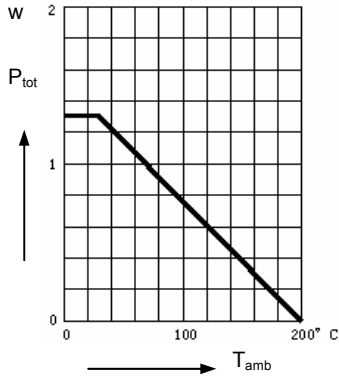
ISO 9001:2000  
Certificate No. 0506098

Dated : 12/06/2007

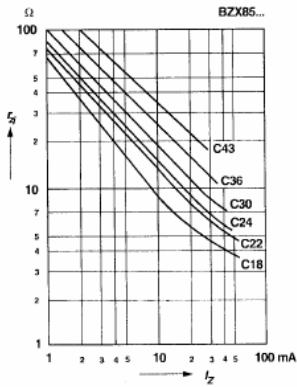
# BZX85C



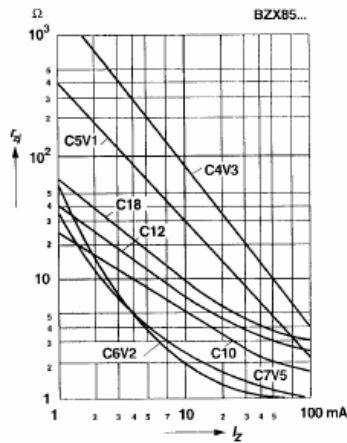
Admissible power dissipation  
Versus ambient temperature  
Valid provided that leads are kept at ambient  
Temperature at a distance of 10 mm from case



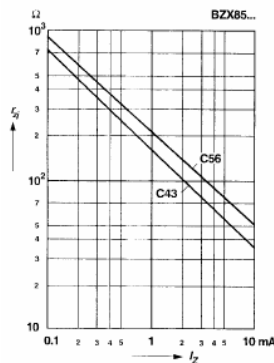
Dynamic resistance  
versus Zener current



Dynamic resistance  
versus Zener current

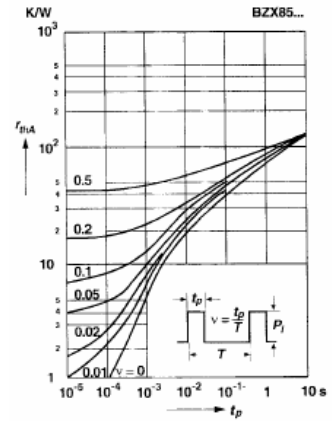


Dynamic resistance  
versus Zener current

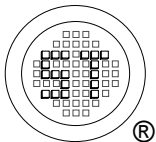
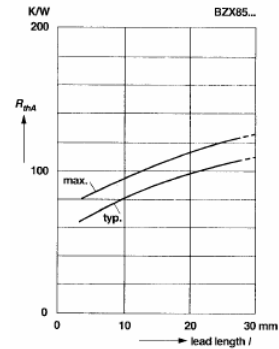


Pulse thermal resistance  
versus pulse duration

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



Thermal resistance  
versus lead length



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