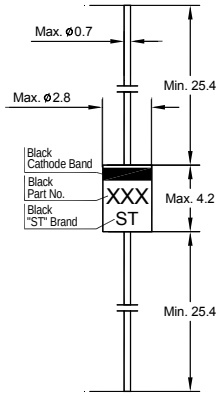
BZX85C

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 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	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 at a distance of 8 mm from case are kept at ambient temperature.			

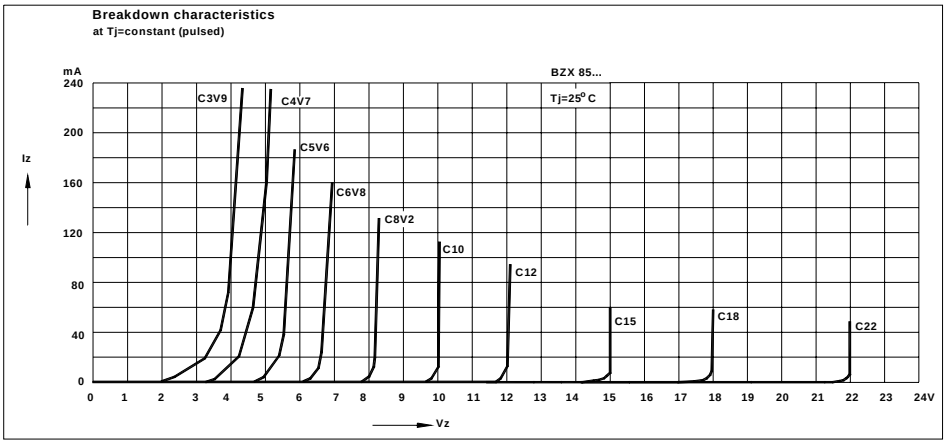
Characteristics at T_a = 25 °C

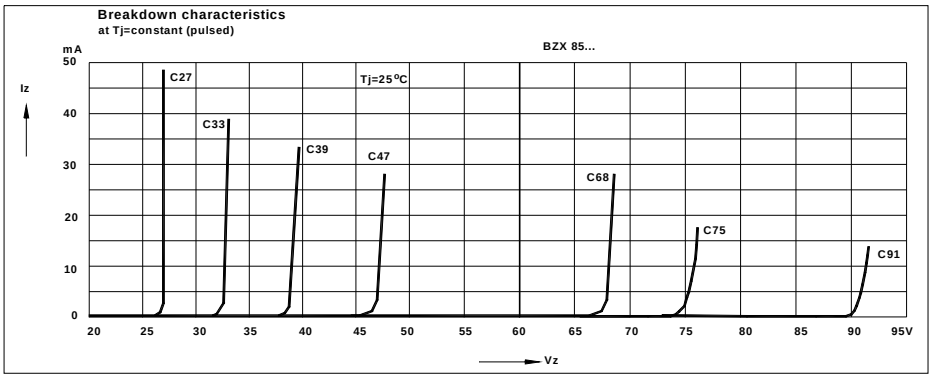
Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	130 [1]	K/W
Forward Voltage at I_F = 200 mA	V_F	1.2	V
[1] Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.			

BZX85C

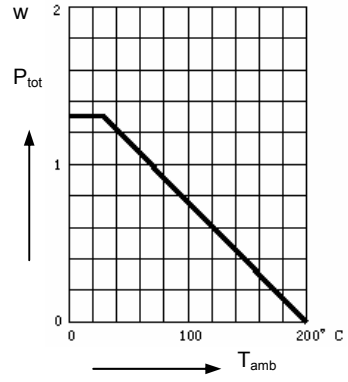
Type	Zener Voltage Range [1]			Maximum Dynamic Resistance			Maximum Reverse Leakage Current	
	V_{Znom}	I_{ZT} for	V_{ZT}	r_{ZJT}	r_{ZJK}	at I_{ZK}	I_R	at V_R
	V	mA	V	Ω	Ω	mA	μA	V
BZX85C2V7	2.7	80	2.5...2.9	20	400	1	150	1
BZX85C3V0	3.0	80	2.8...3.2	20	400	1	100	1
BZX85C3V3	3.3	70	3.1...3.5	20	400	1	40	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

[1] Tested with pulses t_p = 20 ms.

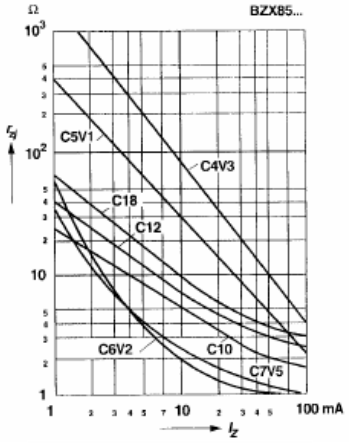




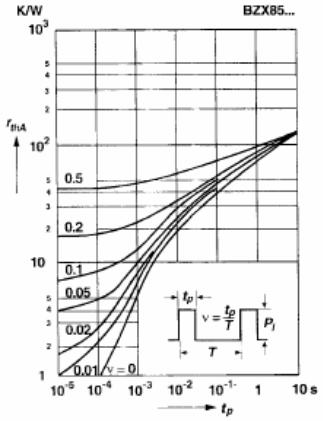
Admissible power dissipation
Versus ambient temperature
Valid provided that leads are kept at ambient
Temperature at a distance of 10 mm from case



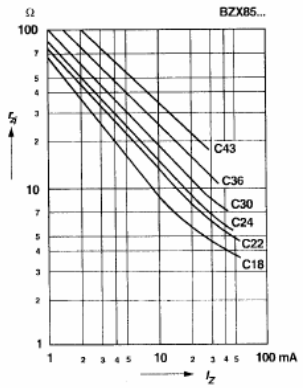
Dynamic resistance
versus Zener current



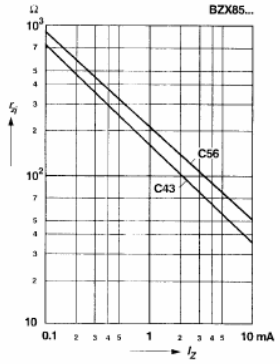
Pulse thermal resistance
versus pulse duration
Valid provided that leads are kept at ambient
temperature at a distance of 10 mm from case.



Dynamic resistance
versus Zener current



Dynamic resistance
versus Zener current



Thermal resistance
versus lead length