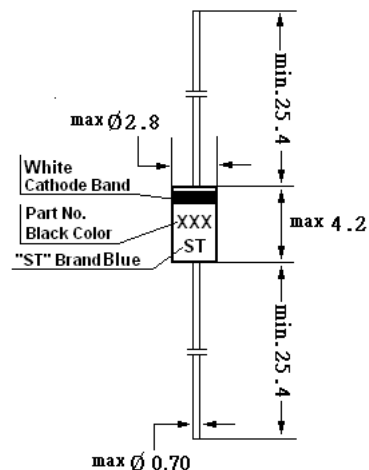


# BZX85...

## 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.



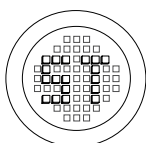
Glass Case JEDEC DO-41  
Dimensions in mm

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

	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation	$P_{tot}$	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 are kept at ambient temperature at a distance of 8 mm from case			

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

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



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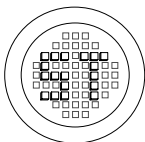
**РАДИОТЕХ**

Тел.: (495) 795-0805  
Факс: (495) 234-1603  
Эл. почта: info@rct.ru  
Веб: www.rct.ru

# BZX85...

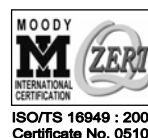
Type	Zener Voltage Range <sup>1)</sup>			Dynamic Resistance			Reverse Leakage Current		Temp . coefficient of Zener Voltage
	V <sub>znom</sub> V	I <sub>ZT</sub> mA	V <sub>ZT</sub> V	r <sub>ZJT</sub> Ω	r <sub>ZJK</sub> Ω	I <sub>ZK</sub> mA	I <sub>R</sub> μA	V <sub>R</sub> V	TKvz %/K
BZX 85/C 2V7	2.7	80	2.5...2.9	<20	<400	1	<150	1	-0.08...-0.05
BZX 85/C 3V0	3.0	80	2.8...3.2	<20	<400	1	<100	1	-0.08...-0.05
BZX 85/C 3V3	3.3	70	3.1...3.5	<20	<400	1	<40	1	-0.08...-0.05
BZX 85/C 3V6	3.6	60	3.4...3.8	<15	<500	1	<20	1	-0.08...-0.05
BZX 85/C 3V9	3.9	60	3.7...4.1	<15	<500	1	<10	1	-0.07...-0.02
BZX 85/C 4V3	4.3	50	4.0...4.6	<13	<500	1	<3	1	-0.07...+0.01
BZX 85/C 4V7	4.7	45	4.4...5.0	<13	<600	1	<3	1	-0.03...+0.04
BZX 85/C 5V1	5.1	45	4.8...5.4	<10	<500	1	<1	1.5	-0.01...+0.04
BZX 85/C 5V6	5.6	45	5.2...6.0	<7	<400	1	<1	2	0...+0.045
BZX 85/C 6V2	6.2	35	5.8...6.6	<4	<300	1	<1	3	+0.01...+0.055
BZX 85/C 6V8	6.8	35	6.4...7.2	<3.5	<300	1	<1	4	+0.015...+0.06
BZX 85/C 7V5	7.5	35	7.0...7.9	<3	<200	0.5	<1	4.5	+0.02...+0.065
BZX 85/C 8V2	8.2	25	7.7...8.7	<5	<200	0.5	<1	6.2	0.03...0.07
BZX 85/C 9V1	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 t<sub>p</sub> = 20 ms.



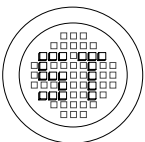
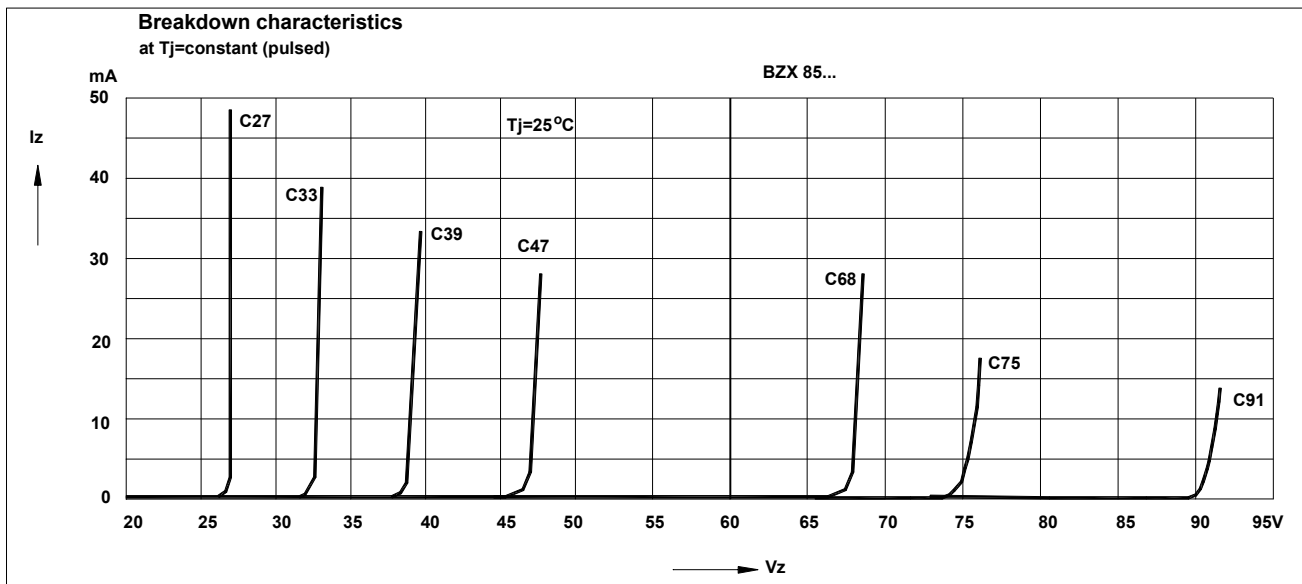
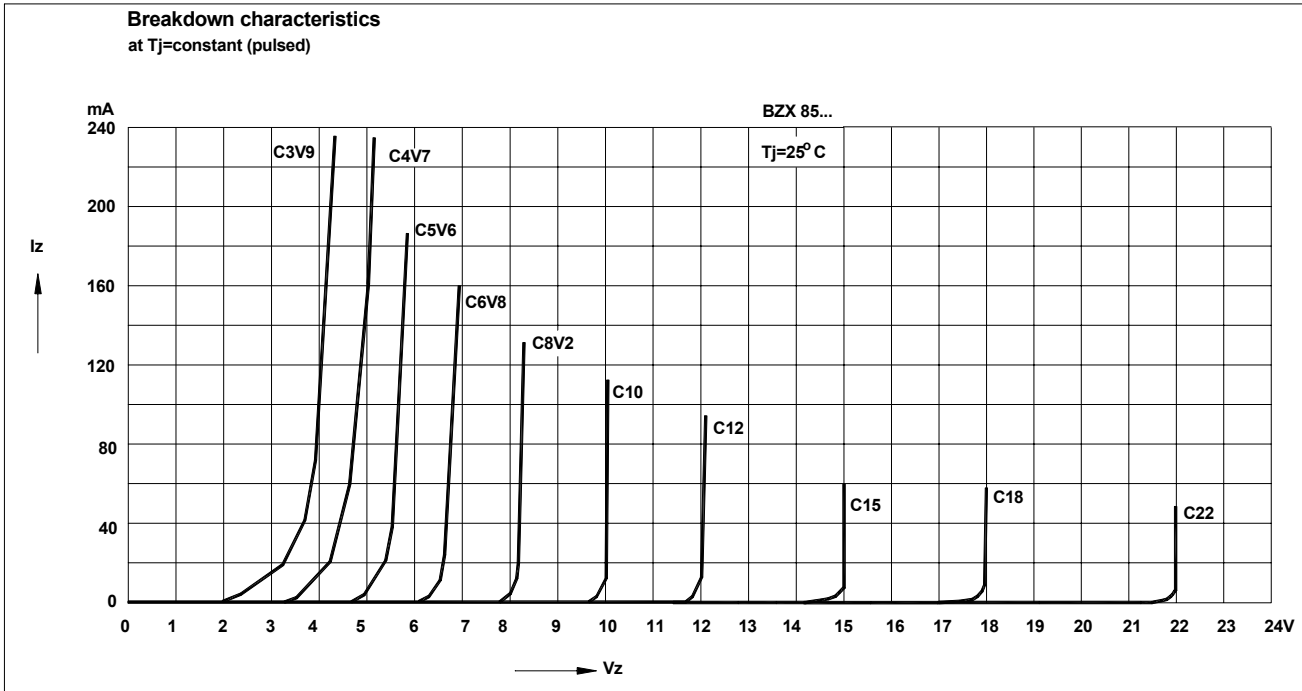
## SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 22/07/2005

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ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001  
Certificate No. 7116

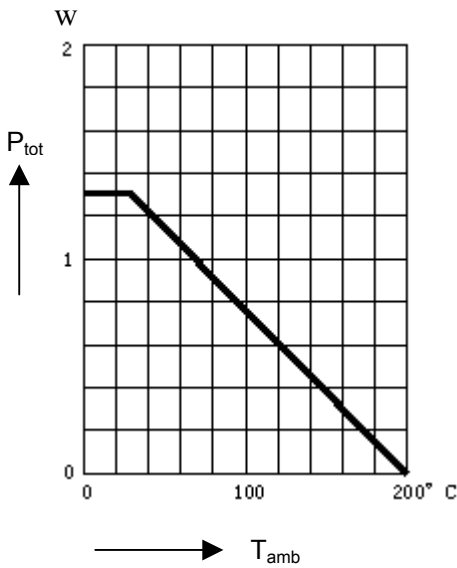


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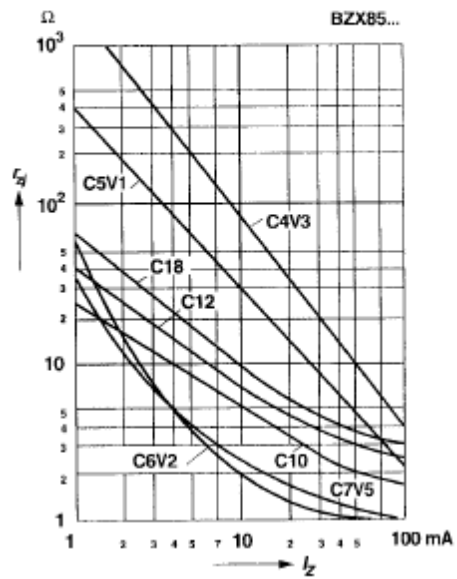
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Admissible power dissipation  
Versus ambient temperature  
Valid provided that leads are kept at ambient  
Temperature at a distance of 10 mm from case

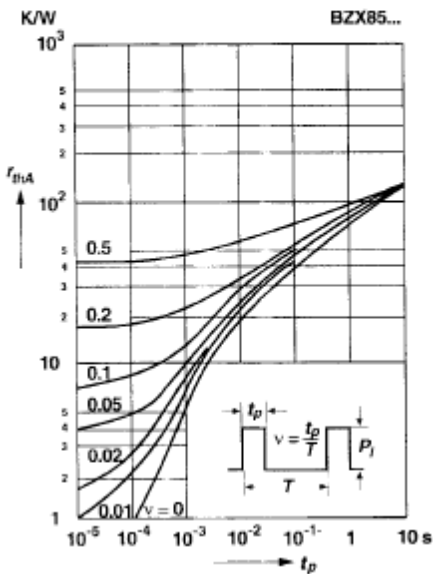


Dynamic resistance  
versus Zener current

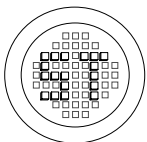
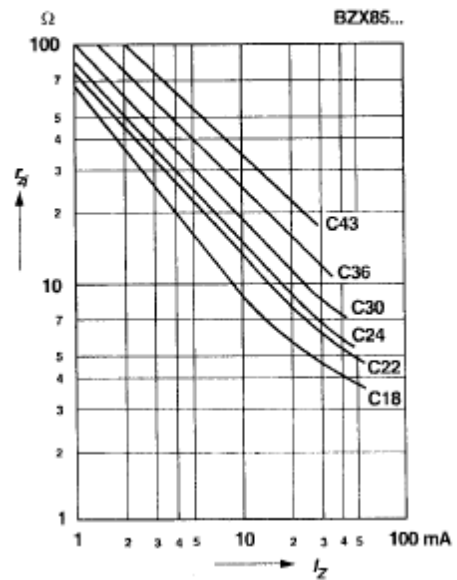


Pulse thermal resistance  
versus pulse duration

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



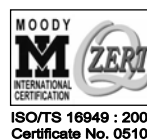
Dynamic resistance  
versus Zener current



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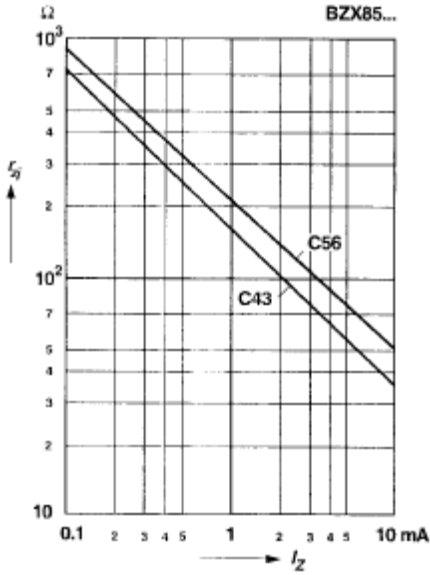
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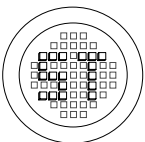
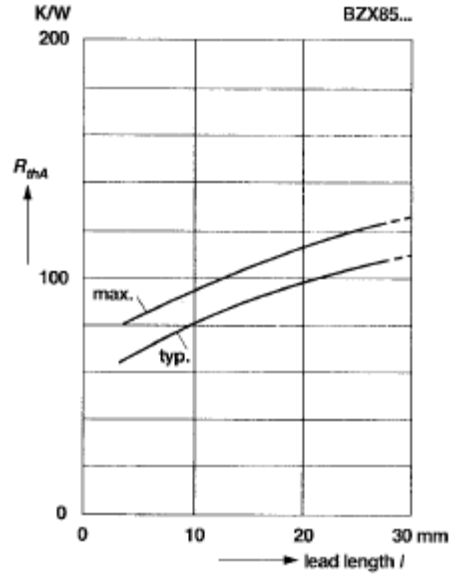
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Dynamic resistance versus Zener current



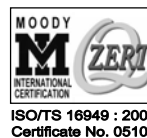
Thermal resistance versus lead length



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