

BZX85CxxxPF

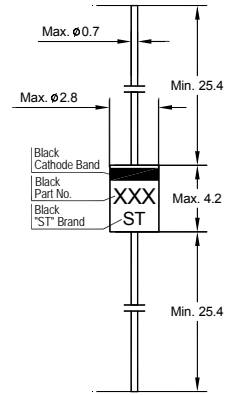
Silicon Planar Power Zener Diodes

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.

Features

- Lead Free



Glass Case DO-41
Dimensions in mm

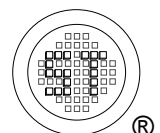
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation ¹⁾	P_{tot}	1.3	W
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 175	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient ¹⁾	$R_{\theta JA}$	115	$^\circ\text{C/W}$

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

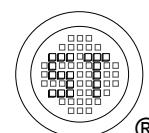


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Characteristics at $T_a = 25^\circ\text{C}$ (V_F max : 1.2 V at $I_F = 200$ mA)

Type	Zener Voltage ¹⁾			Dynamic Resistance				Reverse Current	
	V_{Znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
	(V)	(V)	(mA)	Max. (Ω)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
BZX85C3V0PF	3	2.8...3.2	80	20	80	400	1	100	1
BZX85C3V3PF	3.3	3.1...3.5	70	20	70	400	1	40	1
BZX85C3V6PF	3.6	3.4...3.8	60	15	60	500	1	20	1
BZX85C3V9PF	3.9	3.7...4.1	60	15	60	500	1	10	1
BZX85C4V3PF	4.3	4...4.6	50	13	50	500	1	3	1
BZX85C4V7PF	4.7	4.4...5	45	13	45	600	1	3	1
BZX85C5V1PF	5.1	4.8...5.4	45	10	45	500	1	1	1.5
BZX85C5V6PF	5.6	5.2...6	45	7	45	400	1	1	2
BZX85C6V2PF	6.2	5.8...6.6	35	4	35	300	1	1	3
BZX85C6V8PF	6.8	6.4...7.2	35	3.5	35	300	1	1	4
BZX85C7V5PF	7.5	7...7.9	35	3	35	200	0.5	1	4.5
BZX85C8V2PF	8.2	7.7...8.7	25	5	25	200	0.5	1	6.2
BZX85C9V1PF	9.1	8.5...9.6	25	5	25	200	0.5	1	6.8
BZX85C10PF	10	9.4...10.6	25	7	25	200	0.5	0.5	7
BZX85C11PF	11	10.4...11.6	20	8	20	300	0.5	0.5	8.2
BZX85C12PF	12	11.4...12.7	20	9	20	350	0.5	0.5	9.1
BZX85C13PF	13	12.4...14.1	20	10	20	400	0.5	0.5	10
BZX85C15PF	15	13.8...15.6	15	15	15	500	0.5	0.5	11
BZX85C16PF	16	15.3...17.1	15	15	15	500	0.5	0.5	12
BZX85C18PF	18	16.8...19.1	15	20	15	500	0.5	0.5	13
BZX85C20PF	20	18.8...21.2	10	24	10	600	0.5	0.5	15
BZX85C22PF	22	20.8...23.3	10	25	10	600	0.5	0.5	16
BZX85C24PF	24	22.8...25.6	10	25	10	600	0.5	0.5	18
BZX85C27PF	27	25.1...28.9	8	30	8	750	0.25	0.5	20
BZX85C30PF	30	28...32	8	30	8	1000	0.25	0.5	22
BZX85C33PF	33	31...35	8	35	8	1000	0.25	0.5	24
BZX85C36PF	36	34...38	8	40	8	1000	0.25	0.5	27
BZX85C39PF	39	37...41	6	50	6	1000	0.25	0.5	30
BZX85C43PF	43	40...46	6	50	6	1000	0.25	0.5	33
BZX85C47PF	47	44...50	4	90	4	1500	0.25	0.5	36
BZX85C51PF	51	48...54	4	115	4	1500	0.25	0.5	39
BZX85C56PF	56	52...60	4	120	4	2000	0.25	0.5	43
BZX85C62PF	62	58...66	4	125	4	2000	0.25	0.5	47
BZX85C68PF	68	64...72	4	130	4	2000	0.25	0.5	51
BZX85C75PF	75	70...79	4	135	4	2000	0.25	0.5	56

¹⁾ Tested with pulses $t_p = 20$ ms.



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Electrical Characteristics Curves

Fig 1. Zener Characteristics Curve

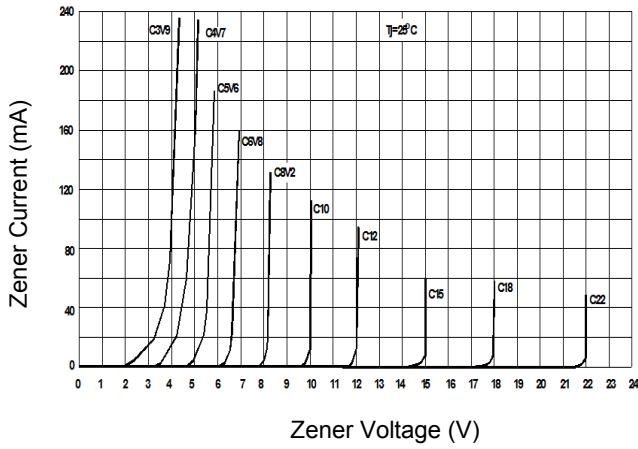


Fig 2. Zener Characteristics Curve

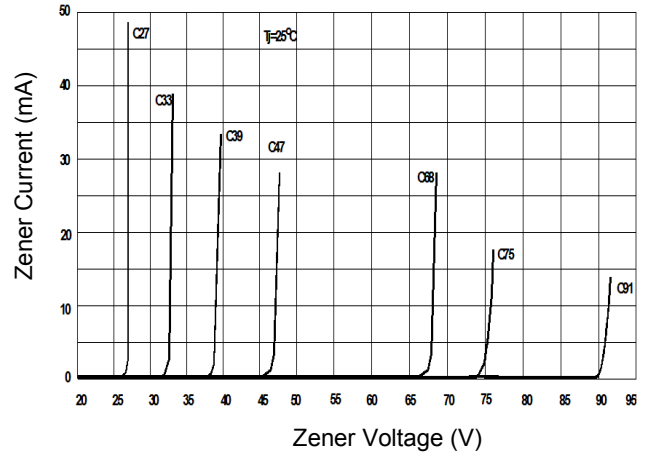


Fig 3. Dynamic Resistance vs.Zener Current

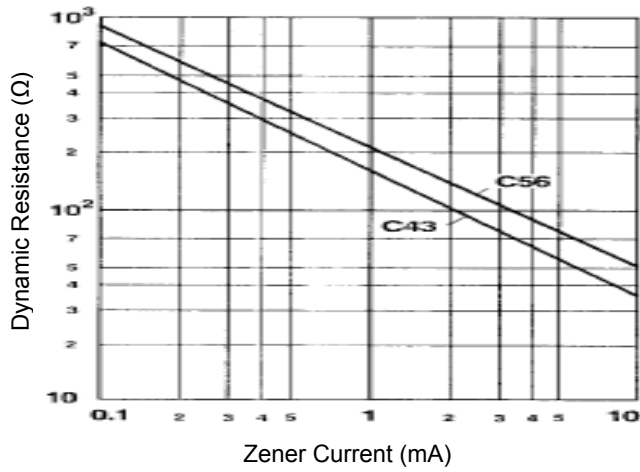


Fig 4. Dynamic Resistance vs.Zener Current

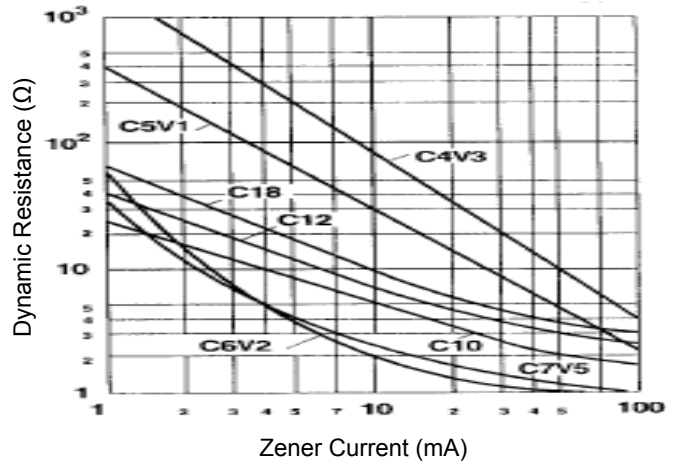


Fig 5. Dynamic Resistance vs.Zener Current

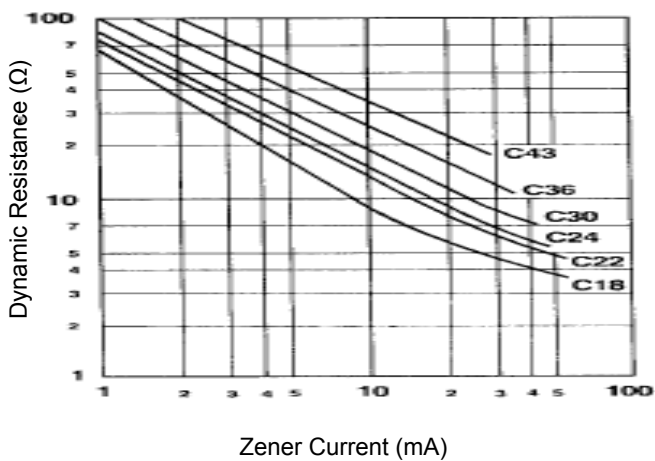


Fig 6. Power Derating Curve

