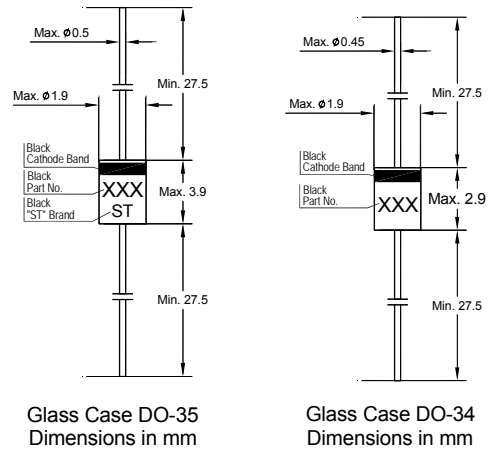


# BZX55C

## SILICON PLANAR ZENER DIODES

The Zener voltages are graded according to the international E24 standard.  
Other tolerances and higher Zener voltages are upon request.



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

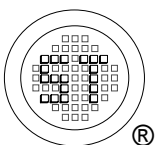
Parameter	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	500 <sup>1)</sup>	mW
Junction Temperature	$T_j$	175	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 175	$^\circ\text{C}$

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

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

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{thA}$	0.3 <sup>1)</sup>	K/mW
Forward Voltage at $I_F = 100\text{ mA}$	$V_F$	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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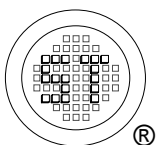
Dated : 12/06/2007

# BZX55C

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	for V <sub>ZT</sub> V	r <sub>ZJT</sub> Max.(Ω)	r <sub>ZJK</sub> at I <sub>ZK</sub> Max.(Ω)	mA	T <sub>a</sub> =25°C Max.(μA)	T <sub>a</sub> =125°C Max.(μA)	I <sub>R</sub> at V <sub>R</sub> V	TKvz %/K
BZX55C0V8 <sup>2)</sup>	0.8	5	0.73...0.83	8	50	1	--	--	--	-0.26...-0.23
BZX55C2V0	2	5	1.8...2.15	85	600	1	100	200	1	-0.09...-0.06
BZX55C2V2	2.2	5	2.08...2.33	85	600	1	75	160	1	-0.09...-0.06
BZX55C2V4	2.4	5	2.28...2.56	85	600	1	50	100	1	-0.09...-0.06
BZX55C2V7	2.7	5	2.5...2.9	85	600	1	10	50	1	-0.09...-0.06
BZX55C3V0	3	5	2.8...3.2	85	600	1	4	40	1	-0.08...-0.05
BZX55C3V3	3.3	5	3.1...3.5	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V6	3.6	5	3.4...3.8	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V9	3.9	5	3.7...4.1	85	600	1	2	40	1	-0.08...-0.05
BZX55C4V3	4.3	5	4...4.6	75	600	1	1	20	1	-0.06...-0.03
BZX55C4V7	4.7	5	4.4...5	60	600	1	0.5	10	1	-0.05...+0.02
BZX55C5V1	5.1	5	4.8...5.4	35	550	1	0.1	2	1	-0.02...+0.02
BZX55C5V6	5.6	5	5.2...6	25	450	1	0.1	2	1	-0.05...+0.05
BZX55C6V2	6.2	5	5.8...6.6	10	200	1	0.1	2	2	0.03...0.06
BZX55C6V8	6.8	5	6.4...7.2	8	150	1	0.1	2	3	0.03...0.07
BZX55C7V5	7.5	5	7...7.9	7	50	1	0.1	2	5	0.03...0.07
BZX55C8V2	8.2	5	7.7...8.7	7	50	1	0.1	2	6.2	0.03...0.08
BZX55C9V1	9.1	5	8.5...9.6	10	50	1	0.1	2	6.8	0.03...0.09
BZX55C10	10	5	9.4...10.6	15	70	1	0.1	2	7.5	0.03...0.1
BZX55C11	11	5	10.4...11.6	20	70	1	0.1	2	8.2	0.03...0.11
BZX55C12	12	5	11.4...12.7	20	90	1	0.1	2	9.1	0.03...0.11
BZX55C13	13	5	12.4...14.1	26	110	1	0.1	2	10	0.03...0.11
BZX55C15	15	5	13.8...15.6	30	110	1	0.1	2	11	0.03...0.11
BZX55C16	16	5	15.3...17.1	40	170	1	0.1	2	12	0.03...0.11
BZX55C18	18	5	16.8...19.1	50	170	1	0.1	2	13	0.03...0.11
BZX55C20	20	5	18.8...21.2	55	220	1	0.1	2	15	0.03...0.11
BZX55C22	22	5	20.8...23.3	55	220	1	0.1	2	16	0.04...0.12
BZX55C24	24	5	22.8...25.6	80	220	1	0.1	2	18	0.04...0.12
BZX55C27	27	5	25.1...28.9	80	220	1	0.1	2	20	0.04...0.12
BZX55C30	30	5	28...32	80	220	1	0.1	2	22	0.04...0.12
BZX55C33	33	5	31...35	80	220	1	0.1	2	24	0.04...0.12
BZX55C36	36	5	34...38	80	220	1	0.1	2	27	0.04...0.12
BZX55C39	39	2.5	37...41	90	500	0.5	0.1	5	30	0.04...0.12
BZX55C43	43	2.5	40...46	90	500	0.5	0.1	5	33	0.04...0.12
BZX55C47	47	2.5	44...50	110	600	0.5	0.1	5	36	0.04...0.12
BZX55C51	51	2.5	48...54	125	700	0.5	0.1	10	39	0.04...0.12
BZX55C56	56	2.5	52...60	135	700	0.5	0.1	10	43	0.04...0.12
BZX55C62	62	2.5	58...66	150	1000	0.5	0.1	10	47	0.04...0.12
BZX55C68	68	2.5	64...72	200	1000	0.5	0.1	10	51	0.04...0.12
BZX55C75	75	2.5	70...79	250	1000	0.5	0.1	10	56	0.04...0.12
BZX55C82	82	2.5	77...87	300	1500	0.25	0.1	10	62	0.05...0.12
BZX55C91	91	1	85...96	450	2000	0.1	0.1	10	68	0.05...0.12
BZX55C100	100	1	94...106	450	5000	0.1	0.1	10	75	0.05...0.12
BZX55C110	110	1	104...116	600	5000	0.1	0.1	10	82	0.05...0.12
BZX55C120	120	1	114...127	800	5500	0.1	0.1	10	91	0.05...0.12
BZX55C130	130	1	124...141	950	6000	0.1	0.1	10	100	0.05...0.12
BZX55C150	150	1	138...156	1250	6500	0.1	0.1	10	110	0.05...0.12
BZX55C160	160	1	153...171	1400	7000	0.1	0.1	10	120	0.05...0.12
BZX55C180	180	1	168...191	1700	8500	0.1	0.1	10	130	0.05...0.12
BZX55C200	200	1	188...212	2000	10000	0.1	0.1	10	150	0.05...0.12

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

<sup>2)</sup> The BZX55C0V8 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode lead to the negative pole.



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ISO/TS 16949 : 2002  
Certificate No. 05103



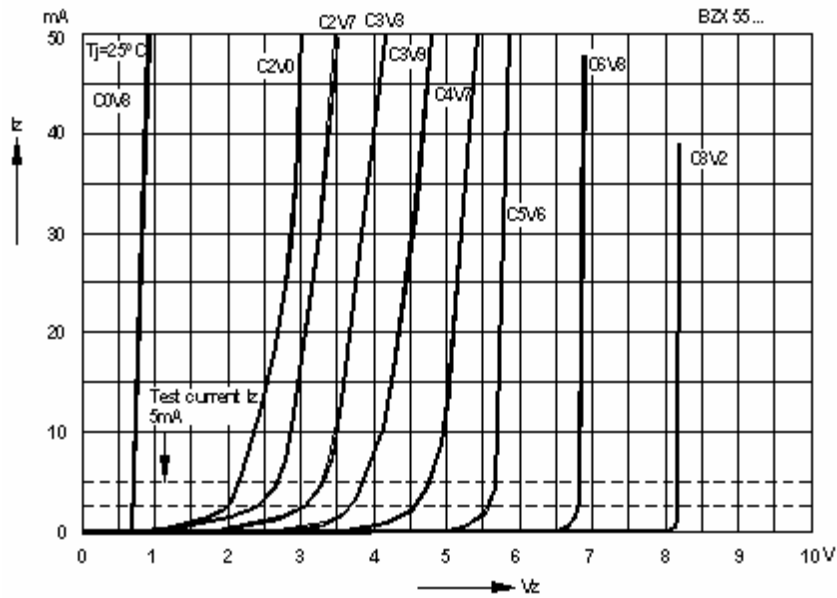
ISO 14001:2004  
Certificate No. 7116



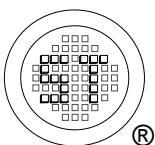
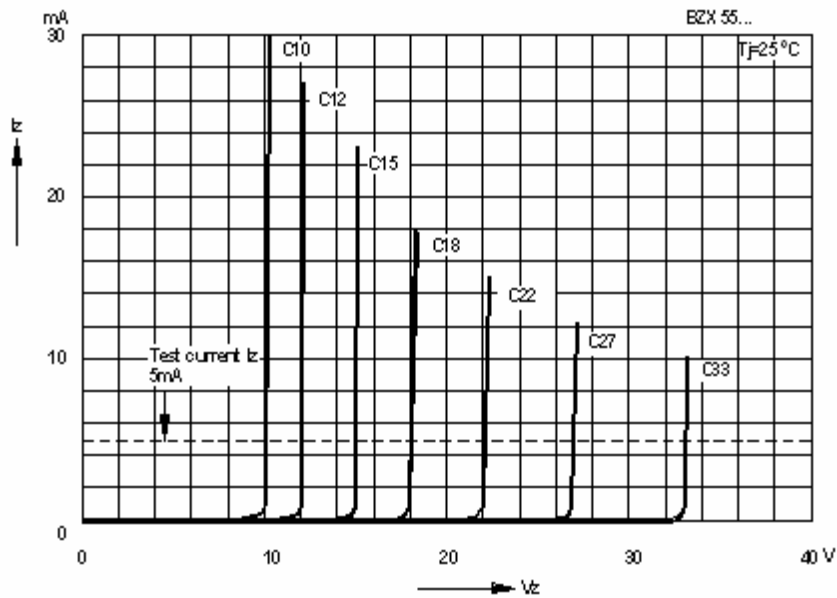
ISO 9001:2000  
Certificate No. 0506098

# BZX55C

Breakdown characteristics  
 $T_j = \text{constant (pulsed)}$



Breakdown characteristics  
 $T_j = \text{constant (pulsed)}$



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Dated : 12/06/2007