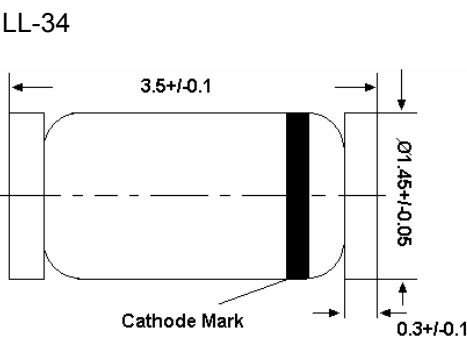


BZV55C 1...BZV55C200

SILICON PLANAR ZENER DIODES

in MiniMELF case especially for automatic insertion. The Zener voltages are graded according to the international E 24 standard. Smaller voltage tolerances and higher Zener voltages are upon request.

These diodes are also available in DO-35 case with the type designation BZX55C...



Glass case MiniMELF
Dimensions in mm

Absolute Maximum Ratings (T_a = 25°C)

	Symbol	Value	Unit
Power Dissipation	P _{tot}	500 ¹⁾	mW
Junction Temperature	T _j	175	°C
Storage Temperature Range	T _s	-55 to +175	°C
¹⁾ Valid provided that electrodes are kept at ambient temperature			

Characteristics at T_{amb} = 25°C

	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	R _{thA}	-	-	0.3 ¹⁾	K/mW
Forward Voltage at I _F = 100mA	V _F	-	-	1	V
¹⁾ Valid provided that electrodes are kept at ambient temperature					

BZV55C 1...BZV55C200

Type	Zener Voltage Range ¹⁾			Dynamic Resistance			Reverse Leakage Current			Temp coefficient of Zener Voltage
	V _{znom} V	I _{ZT} mA	for V _{ZT} ²⁾ V	r _{ZJT} Ω	r _{ZJK} at Ω	I _{ZK} mA	T _a =25°C μA	T _a = 125°C μA	I _R at V _R V	TKvz %/K
BZV55C 1	0.75	5	0.7...0.8	<8	<50	1	--	--	--	-0.26...-0.23
BZV55C 2V0	2.0	5	1.80...2.15	<85	<600	1	<100	<200	1	-0.09...-0.06
BZV55C 2V2	2.2	5	2.08...2.33	<85	<600	1	<75	<160	1	-0.09...-0.06
BZV55C 2V4	2.4	5	2.28...2.56	<85	<600	1	<50	<100	1	-0.09...-0.06
BZV55C 2V7	2.7	5	2.5...2.9	<85	<600	1	<10	<50	1	-0.09...-0.06
BZV55C 3V0	3.0	5	2.8...3.2	<85	<600	1	<4	<40	1	-0.08...-0.05
BZV55C 3V3	3.3	5	3.1...3.5	<85	<600	1	<2	<40	1	-0.08...-0.05
BZV55C 3V6	3.6	5	3.4...3.8	<85	<600	1	<2	<40	1	-0.08...-0.05
BZV55C 3V9	3.9	5	3.7...4.1	<85	<600	1	<2	<40	1	-0.08...-0.05
BZV55C 4V3	4.3	5	4.0...4.6	<75	<600	1	<1	<20	1	-0.06...-0.03
BZV55C 4V7	4.7	5	4.4...5.0	<60	<600	1	<0.5	<10	1	-0.05...+0.02
BZV55C 5V1	5.1	5	4.8...5.4	<35	<550	1	<0.1	<2	1	-0.02...+0.02
BZV55C 5V6	5.6	5	5.2...6.0	<25	<450	1	<0.1	<2	1	-0.05...+0.05
BZV55C 6V2	6.2	5	5.8...6.6	<10	<200	1	<0.1	<2	2	0.03...0.06
BZV55C 6V8	6.8	5	6.4...7.2	<8	<150	1	<0.1	<2	3	0.03...0.07
BZV55C 7V5	7.5	5	7.0...7.9	<7	<50	1	<0.1	<2	5	0.03...0.07
BZV55C 8V2	8.2	5	7.7...8.7	<7	<50	1	<0.1	<2	6.2	0.03...0.08
BZV55C 9V1	9.1	5	8.5...9.6	<10	<50	1	<0.1	<2	6.8	0.03...0.09
BZV55C 10	10	5	9.4...10.6	<15	<70	1	<0.1	<2	7.5	0.03...0.1
BZV55C 11	11	5	10.4...11.6	<20	<70	1	<0.1	<2	8.2	0.03...0.11
BZV55C 12	12	5	11.4...12.7	<20	<90	1	<0.1	<2	9.1	0.03...0.11
BZV55C 13	13	5	12.4...14.1	<26	<110	1	<0.1	<2	10	0.03...0.11
BZV55C 15	15	5	13.8...15.6	<30	<110	1	<0.1	<2	11	0.03...0.11
BZV55C 16	16	5	15.3...17.1	<40	<170	1	<0.1	<2	12	0.03...0.11
BZV55C 18	18	5	16.8...19.1	<50	<170	1	<0.1	<2	13	0.03...0.11
BZV55C 20	20	5	18.8...21.2	<55	<220	1	<0.1	<2	15	0.03...0.11
BZV55C 22	22	5	20.8...23.3	<55	<220	1	<0.1	<2	16	0.04...0.12
BZV55C 24	24	5	22.8...25.6	<80	<220	1	<0.1	<2	18	0.04...0.12
BZV55C 27	27	5	25.1...28.9	<80	<220	1	<0.1	<2	20	0.04...0.12
BZV55C 30	30	5	28...32	<80	<220	1	<0.1	<2	22	0.04...0.12
BZV55C 33	33	5	31...35	<80	<220	1	<0.1	<2	24	0.04...0.12
BZV55C 36	36	5	34...38	<80	<220	1	<0.1	<2	27	0.04...0.12
BZV55C 39	39	2.5	37...41	<90	<500	0.5	<0.1	<5	30	0.04...0.12
BZV55C 43	43	2.5	40...46	<90	<500	0.5	<0.1	<5	33	0.04...0.12
BZV55C 47	47	2.5	44...50	<110	<600	0.5	<0.1	<5	36	0.04...0.12
BZV55C 51	51	2.5	48...54	<125	<700	0.5	<0.1	<10	39	0.04...0.12
BZV55C 56	56	2.5	52...60	<135	<700	0.5	<0.1	<10	43	0.04...0.12
BZV55C 62	62	2.5	58...66	<150	<1000	0.5	<0.1	<10	47	0.04...0.12
BZV55C 68	68	2.5	64...72	<200	<1000	0.5	<0.1	<10	51	0.04...0.12
BZV55C 75	75	2.5	70...79	<250	<1000	0.5	<0.1	<10	56	0.04...0.12
BZV55C 82	82	2.5	77...87	<300	<1500	0.25	<0.1	<10	62	0.05...0.12
BZV55C 91	91	1	85...96	<450	<2000	0.1	<0.1	<10	68	0.05...0.12
BZV55C 100	100	1	94...106	<450	<5000	0.1	<0.1	<10	75	0.05...0.12
BZV55C 110	110	1	104...116	<600	<5000	0.1	<0.1	<10	82	0.05...0.12
BZV55C 120	120	1	114...127	<800	<5500	0.1	<0.1	<10	91	0.05...0.12
BZV55C 130	130	1	124...141	<950	<6000	0.1	<0.1	<10	100	0.05...0.12
BZV55C 150	150	1	138...156	<1250	<6500	0.1	<0.1	<10	110	0.05...0.12
BZV55C 160	160	1	153...171	<1400	<7000	0.1	<0.1	<10	120	0.05...0.12
BZV55C 180	180	1	168...191	<1700	<8500	0.1	<0.1	<10	130	0.05...0.12
BZV55C 200	200	1	188...212	<2000	<10000	0.1	<0.1	<10	150	0.05...0.12

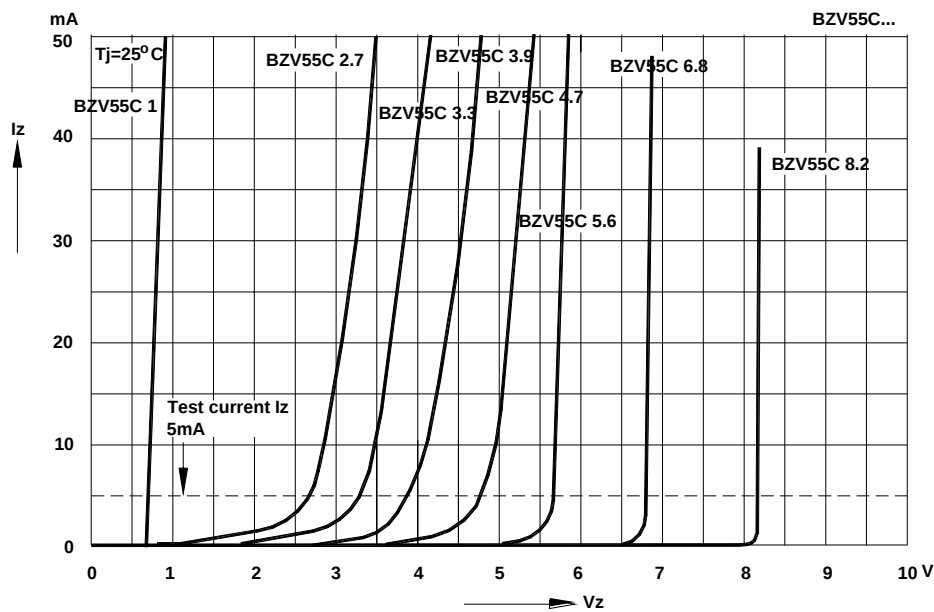
1) Tested with pulses t_p = 20 ms.

2) Valid provided that electrodes are kept at ambient temperature

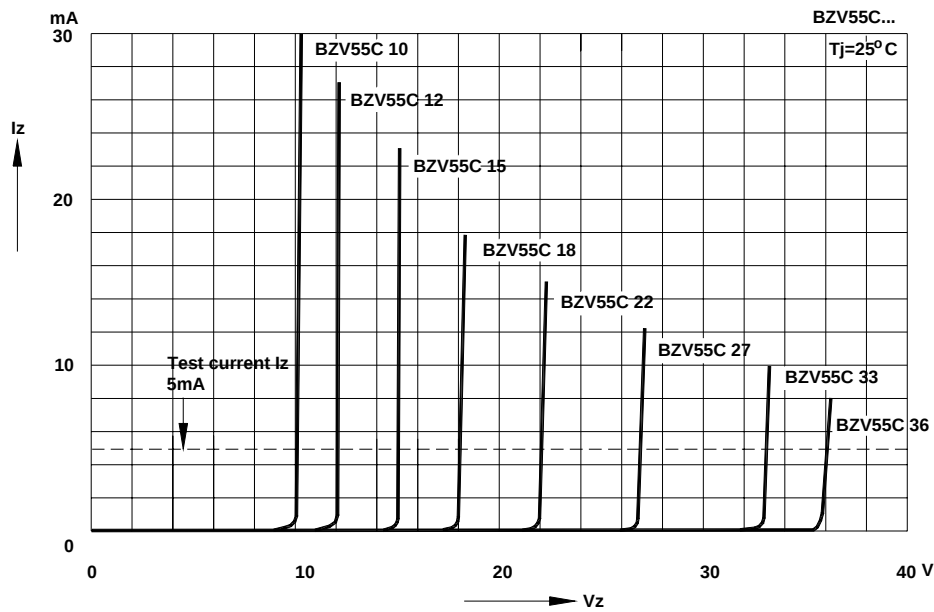
3) The BZV55C 1 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode electrode to the negative pole.

BZV55C 1...BZV55C200

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

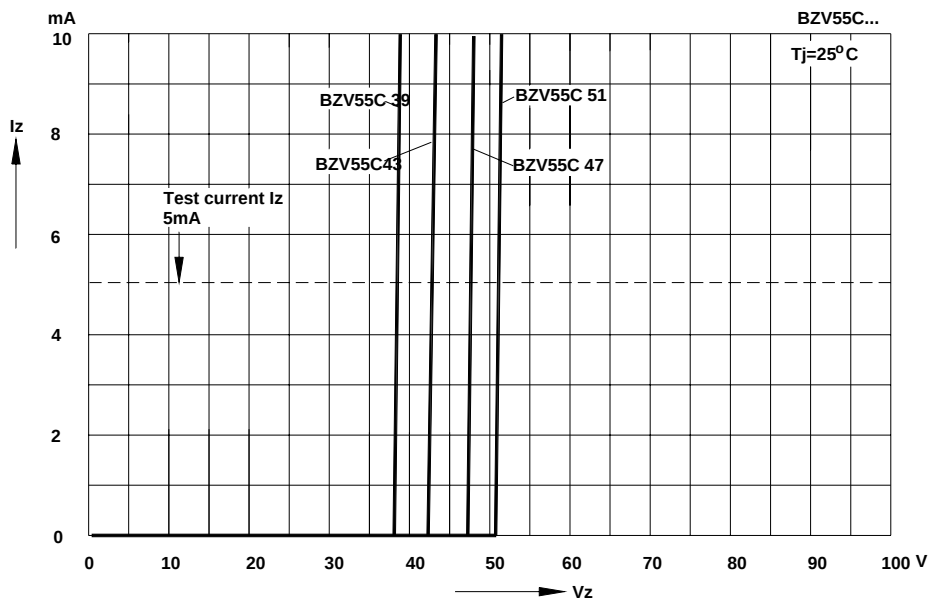


Breakdown characteristics
 $T_j = \text{constant (pulsed)}$

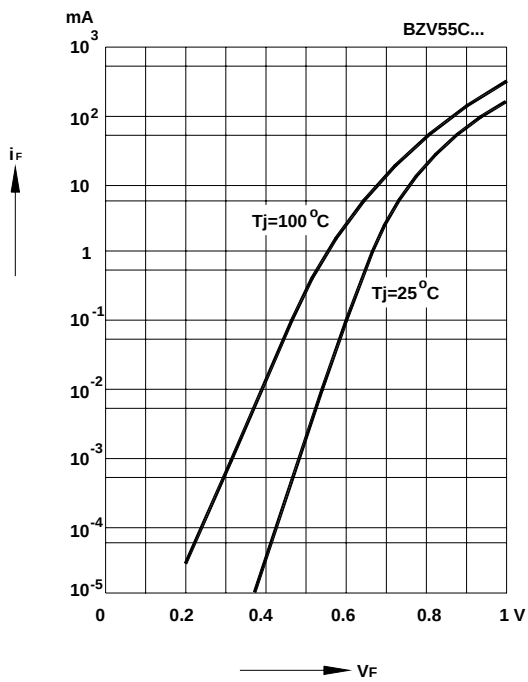


BZV55C1...BZV55C200

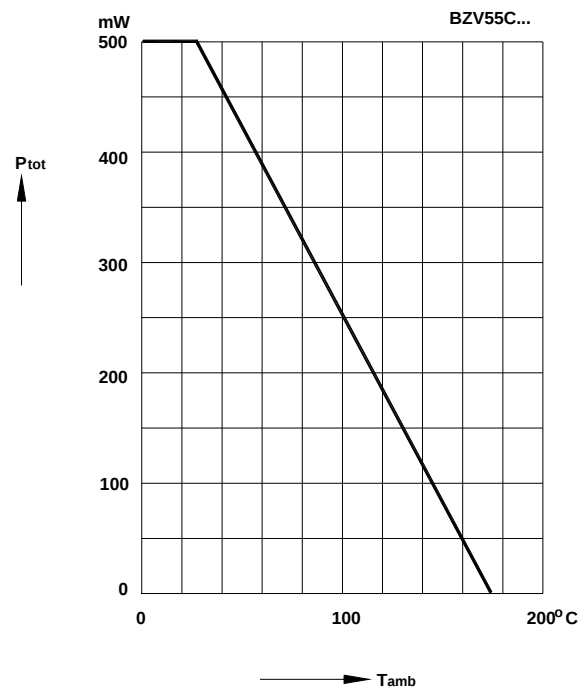
Breakdown characteristics
 $T_j = \text{constant (pulsed)}$



Forward characteristics

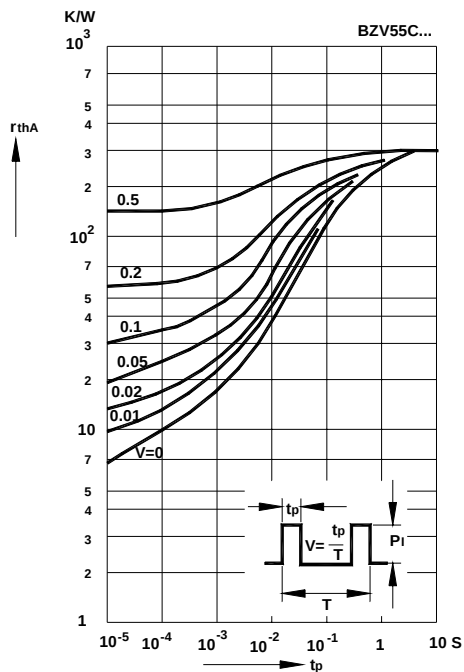


Admissible power dissipation
versus ambient temperature
Valid provided that electrodes are kept
at ambient temperature.

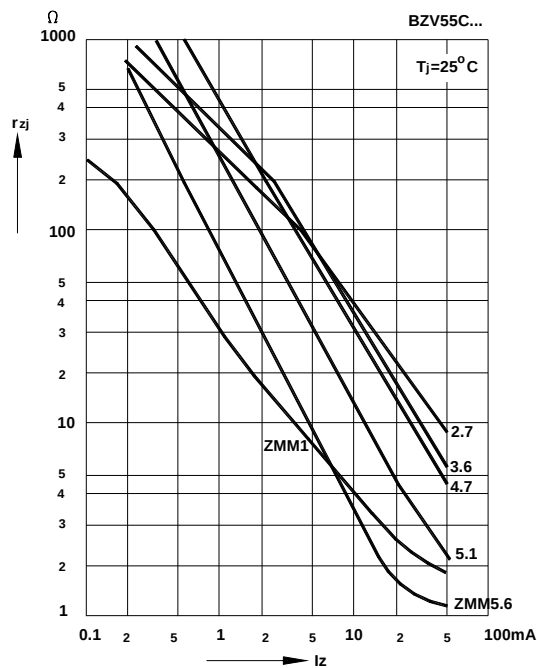


BZV55C 1...BZV55C200

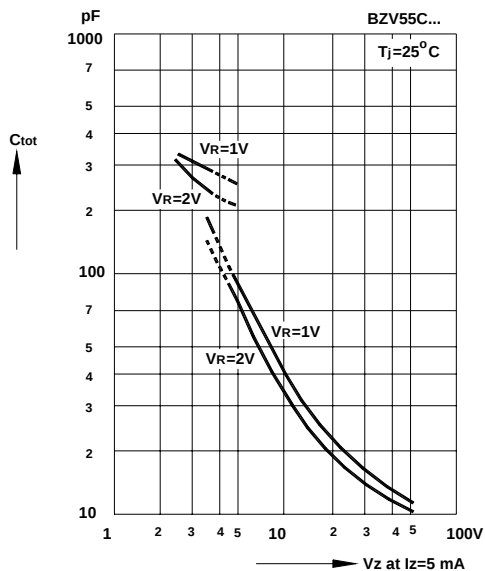
Pulse thermal resistance
versus pulse duration
Valid provided that the electrodes are kept
at ambient temperature.



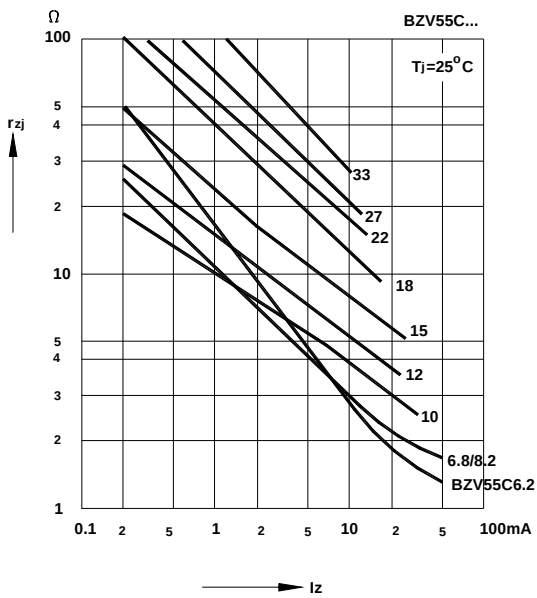
Dynamic resistance
versus Zener current



Capacitance versus
Zener voltage

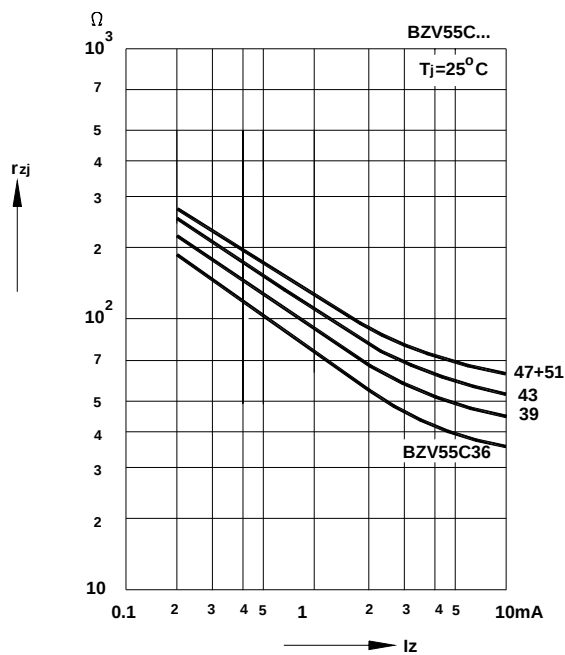


Dynamic resistance
versus Zener current



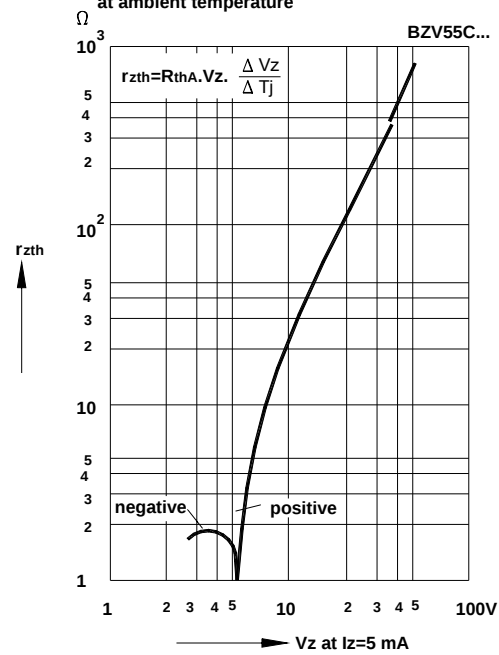
BZV55C 1...BZV55C200

Dynamic resistance
versus Zener current

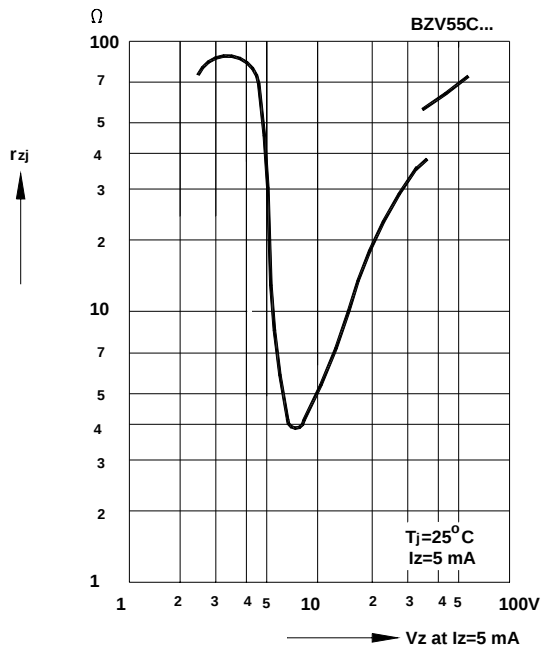


Thermal differential resistance
versus Zener voltage

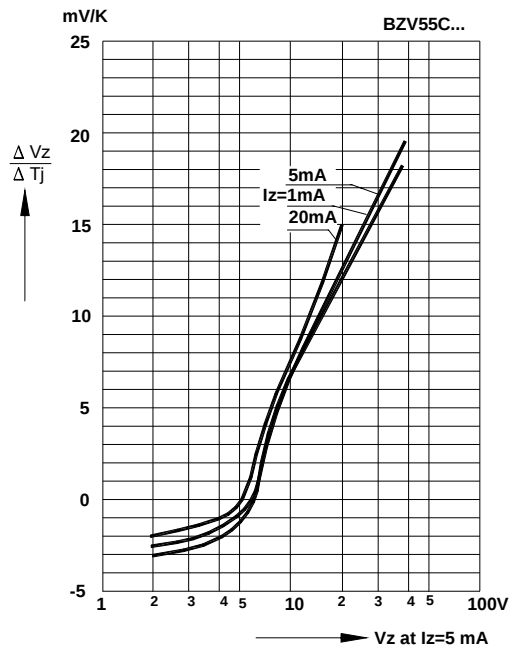
Valid provided that electrodes are kept
at ambient temperature



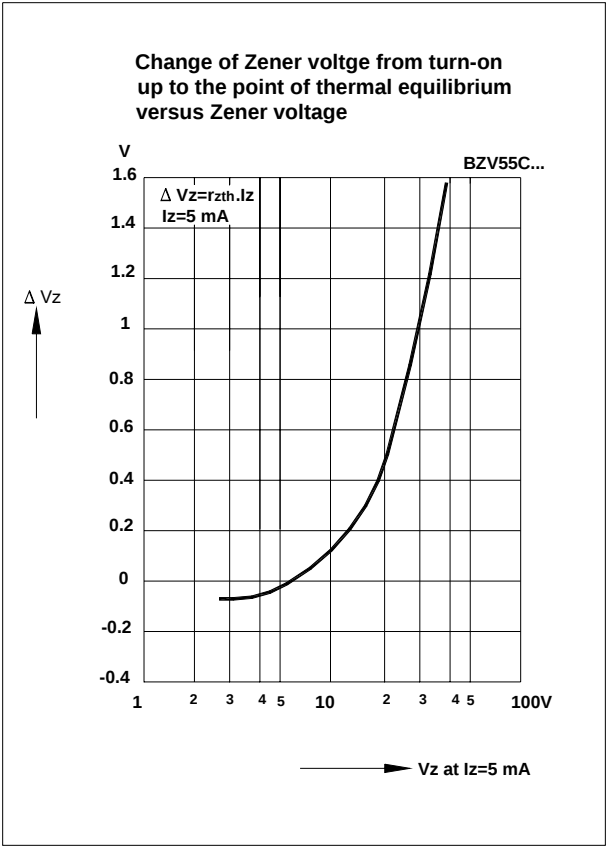
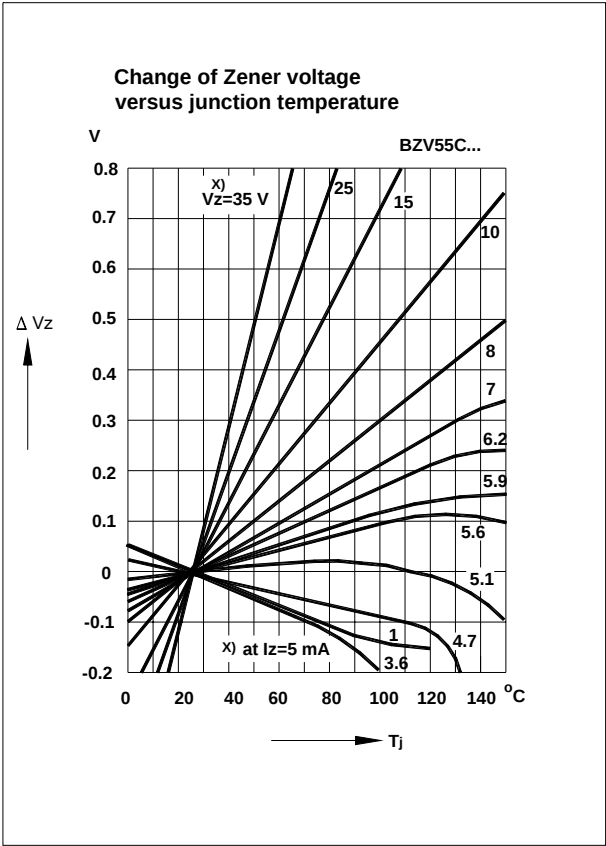
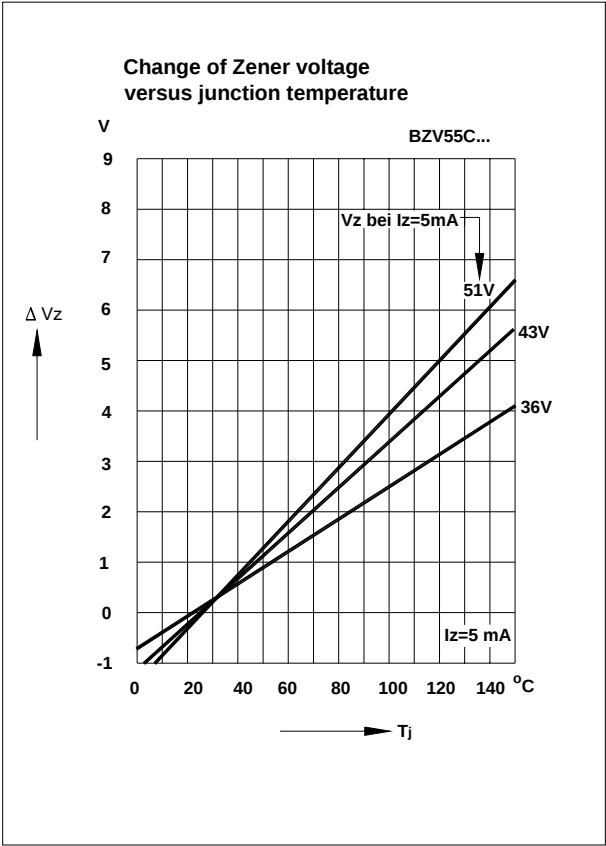
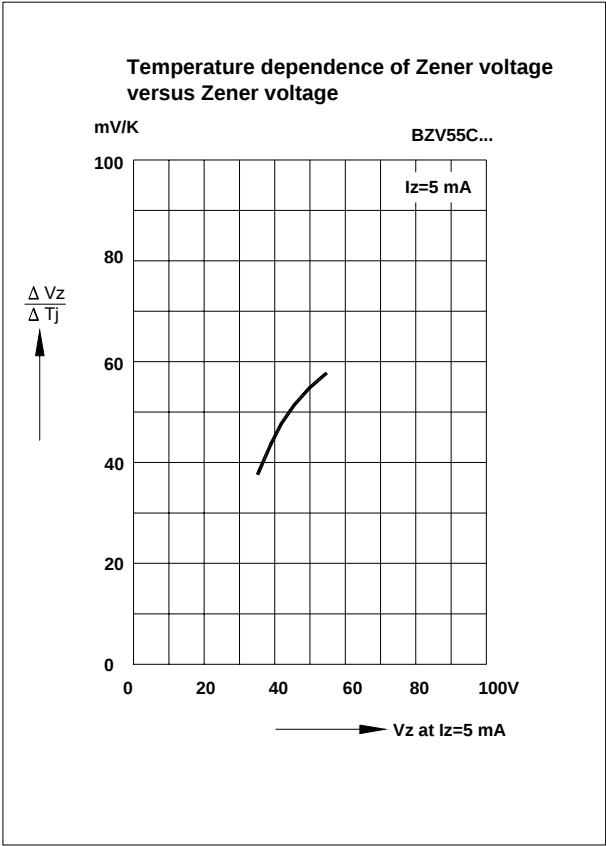
Dynamic resistance
versus Zener voltage



Temperature dependence of Zener voltage
versus Zener voltage



BZV55C1...BZV55C200



BZV55C 1...BZV55C200

Change of Zener voltage from turn-on
up to the point of thermal equilibrium
versus Zener voltage

