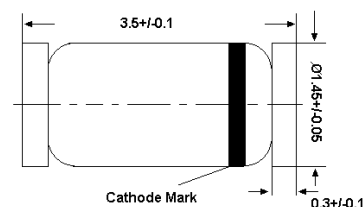


## Silicon Epitaxial Planar Zener Diodes

MiniMELF case especially for automatic insertion. The Zener voltages are graded according to the international E24 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...

LL-34



Glass case MiniMELF  
 Dimensions in mm

### 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	$T_{stg}$	- 55 to + 175	$^\circ\text{C}$

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature

### 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

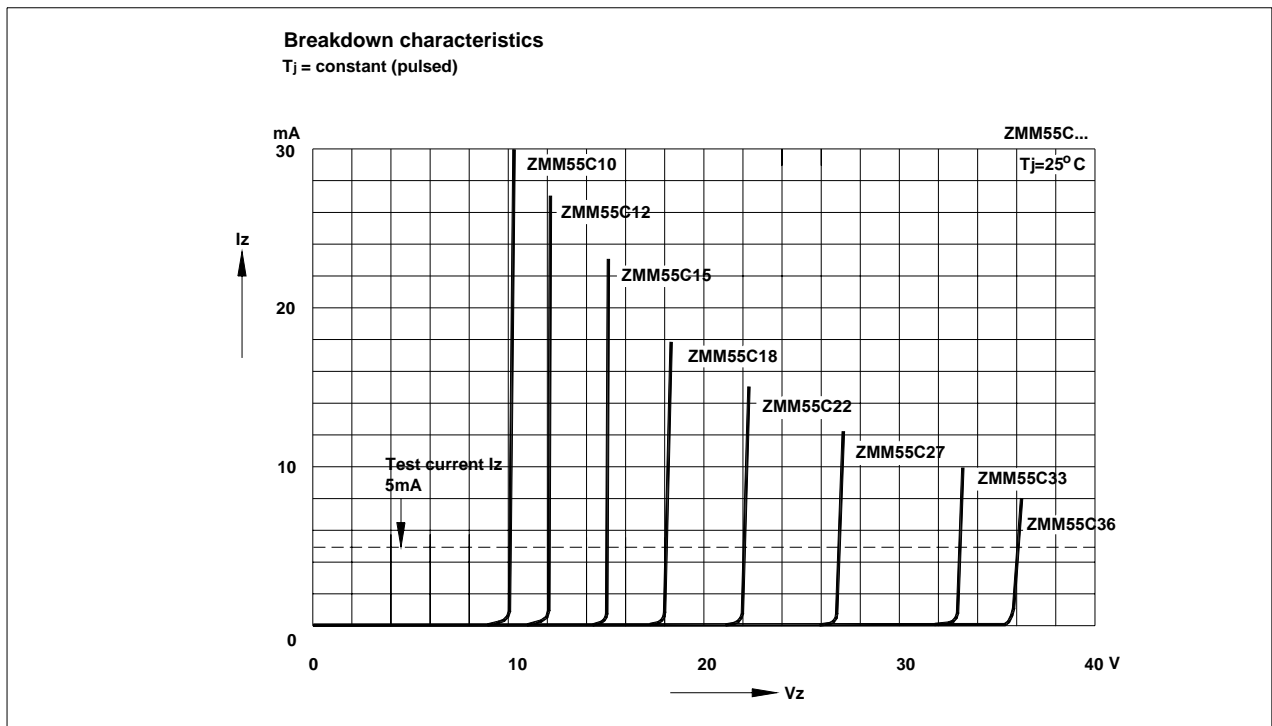
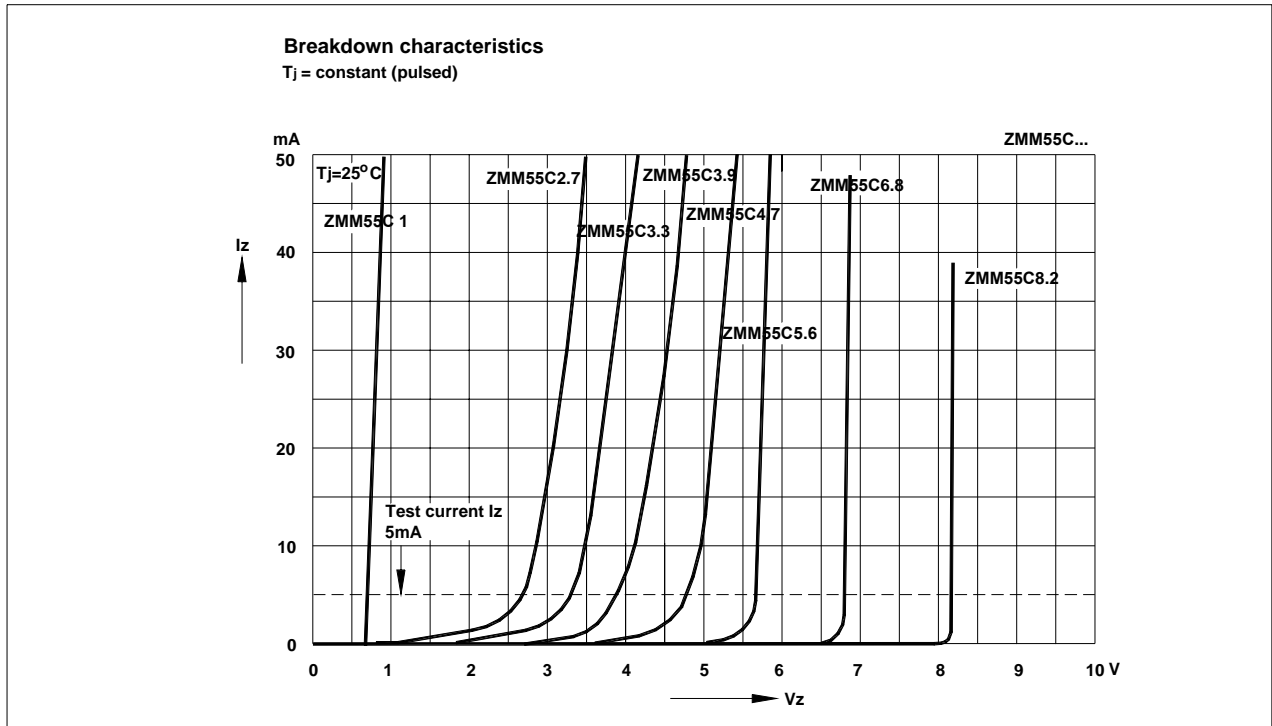
<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature

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

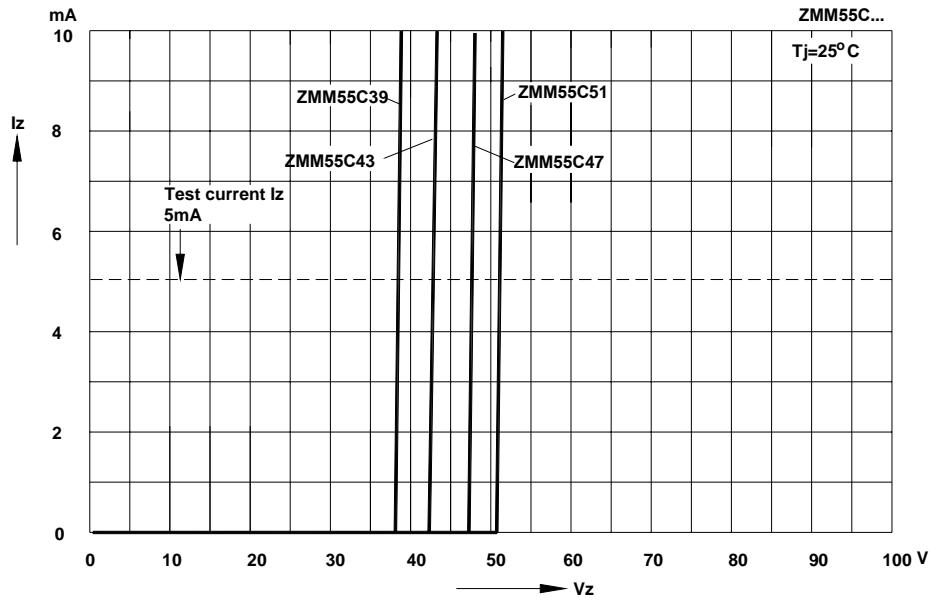
Type ZMM55C	Zener Voltage Range <sup>1)</sup>			Dynamic Resistance			Reverse Leakage Current			Temp. Coefficient of Zener Voltage TKVz (%/K)
	$V_{Znom}$	$V_{ZT}$	at $I_{ZT}$	$Z_{ZT}$	$Z_{ZK}$	at $I_{ZK}$	$T_a = 25\text{ }^\circ\text{C}$	$T_a = 125\text{ }^\circ\text{C}$	at $V_R$	
	(V)	(V)	(mA)	Max. ( $\Omega$ )	Max. ( $\Omega$ )	(mA)	Max. ( $\mu\text{A}$ )	Max. ( $\mu\text{A}$ )	(V)	
1 <sup>2)</sup>	0.75	0.7...0.8	5	8	50	1	-	-	-	-0.26...-0.23
2V0	2	1.8...2.15	5	85	600	1	100	200	1	-0.09...-0.06
2V2	2.2	2.08...2.33	5	85	600	1	75	160	1	-0.09...-0.06
2V4	2.4	2.28...2.56	5	85	600	1	50	100	1	-0.09...-0.06
2V7	2.7	2.5...2.9	5	85	600	1	10	50	1	-0.09...-0.06
3V0	3	2.8...3.2	5	85	600	1	4	40	1	-0.08...-0.05
3V3	3.3	3.1...3.5	5	85	600	1	2	40	1	-0.08...-0.05
3V6	3.6	3.4...3.8	5	85	600	1	2	40	1	-0.08...-0.05
3V9	3.9	3.7...4.1	5	85	600	1	2	40	1	-0.08...-0.05
4V3	4.3	4...4.6	5	75	600	1	1	20	1	-0.06...-0.03
4V7	4.7	4.4...5	5	60	600	1	0.5	10	1	-0.05...+0.02
5V1	5.1	4.8...5.4	5	35	550	1	0.1	2	1	-0.02...+0.02
5V6	5.6	5.2...6	5	25	450	1	0.1	2	1	-0.05...+0.05
6V2	6.2	5.8...6.6	5	10	200	1	0.1	2	2	0.03...0.06
6V8	6.8	6.4...7.2	5	8	150	1	0.1	2	3	0.03...0.07
7V5	7.5	7...7.9	5	7	50	1	0.1	2	5	0.03...0.07
8V2	8.2	7.7...8.7	5	7	50	1	0.1	2	6.2	0.03...0.08
9V1	9.1	8.5...9.6	5	10	50	1	0.1	2	6.8	0.03...0.09
10	10	9.4...10.6	5	15	70	1	0.1	2	7.5	0.03...0.1
11	11	10.4...11.6	5	20	70	1	0.1	2	8.2	0.03...0.11
12	12	11.4...12.7	5	20	90	1	0.1	2	9.1	0.03...0.11
13	13	12.4...14.1	5	26	110	1	0.1	2	10	0.03...0.11
15	15	13.8...15.6	5	30	110	1	0.1	2	11	0.03...0.11
16	16	15.3...17.1	5	40	170	1	0.1	2	12	0.03...0.11
18	18	16.8...19.1	5	50	170	1	0.1	2	13	0.03...0.11
20	20	18.8...21.2	5	55	220	1	0.1	2	15	0.03...0.11
22	22	20.8...23.3	5	55	220	1	0.1	2	16	0.04...0.12
24	24	22.8...25.6	5	80	220	1	0.1	2	18	0.04...0.12
27	27	25.1...28.9	5	80	220	1	0.1	2	20	0.04...0.12
30	30	28...32	5	80	220	1	0.1	2	22	0.04...0.12
33	33	31...35	5	80	220	1	0.1	2	24	0.04...0.12
36	36	34...38	5	80	220	1	0.1	2	27	0.04...0.12
39	39	37...41	2.5	90	500	0.5	0.1	5	30	0.04...0.12
43	43	40...46	2.5	90	500	0.5	0.1	5	33	0.04...0.12
47	47	44...50	2.5	110	600	0.5	0.1	5	36	0.04...0.12
51	51	48...54	2.5	125	700	0.5	0.1	10	39	0.04...0.12
56	56	52...60	2.5	135	700	0.5	0.1	10	43	0.04...0.12
62	62	58...66	2.5	150	1000	0.5	0.1	10	47	0.04...0.12
68	68	64...72	2.5	200	1000	0.5	0.1	10	51	0.04...0.12
75	75	70...79	2.5	250	1000	0.5	0.1	10	56	0.04...0.12

<sup>1)</sup> Tested with pulses  $t_p = 20\text{ ms}$ .

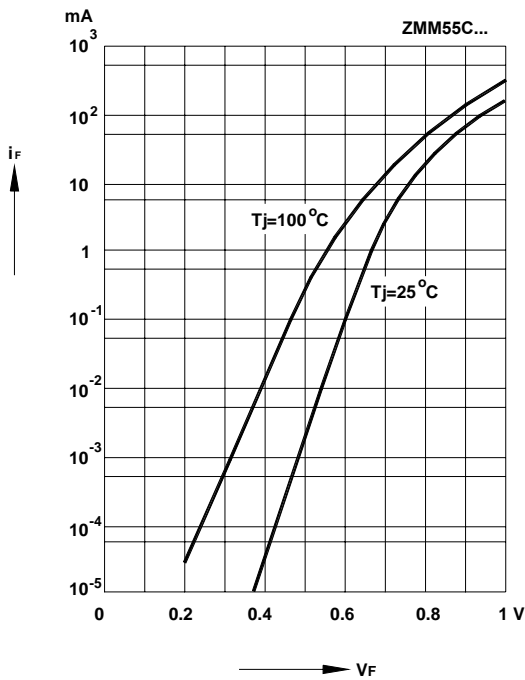
<sup>2)</sup> The ZMM55C1 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode electrode to the negative pole.



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



**Forward characteristics**



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

