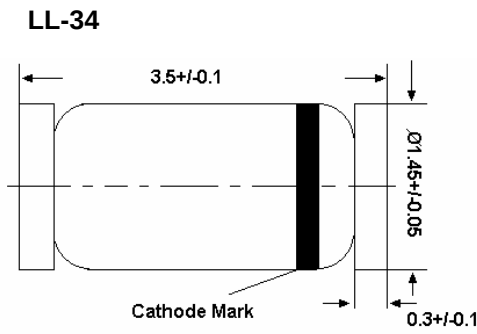


ZMM1B...ZMM200B

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 BZX55B



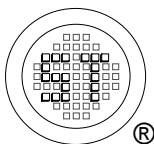
Glass case MiniMELF
Dimensions in mm

Absolute Maximum Ratings (Ta = 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
¹⁾ Valid provided that electrodes are kept at ambient temperature					



SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 20/09/2005

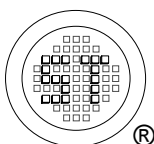
ZMM1B...ZMM200B

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
ZMM 1B ³⁾	0.75	5	0.73...0.77	<8	<50	1	--	--	--	-0.26...-0.23
ZMM 2B0	2.0	5	1.96...2.04	<85	<600	1	<100	<200	1	-0.09...-0.06
ZMM 2B2	2.2	5	2.15...2.25	<85	<600	1	<75	<160	1	-0.09...-0.06
ZMM 2B4	2.4	5	2.35...2.45	<85	<600	1	<50	<100	1	-0.09...-0.06
ZMM 2B7	2.7	5	2.64...2.75	<85	<600	1	<10	<50	1	-0.09...-0.06
ZMM 3B0	3.0	5	2.94...3.06	<85	<600	1	<4	<40	1	-0.08...-0.05
ZMM 3B3	3.3	5	3.23...3.36	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMM 3B6	3.6	5	3.52...3.67	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMM 3B9	3.9	5	3.82...3.98	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMM 4B3	4.3	5	4.21...4.39	<75	<600	1	<1	<20	1	-0.06...-0.03
ZMM 4B7	4.7	5	4.60...4.80	<60	<600	1	<0.5	<10	1	-0.05...+0.02
ZMM 5B1	5.1	5	4.99...5.20	<35	<550	1	<0.1	<2	1	-0.02...+0.02
ZMM 5B6	5.6	5	5.49...5.71	<25	<450	1	<0.1	<2	1	-0.05...+0.05
ZMM 6B2	6.2	5	6.07...6.32	<10	<200	1	<0.1	<2	2	0.03...0.06
ZMM 6B8	6.8	5	6.66...6.94	<8	<150	1	<0.1	<2	3	0.03...0.07
ZMM 7B5	7.5	5	7.35...7.65	<7	<50	1	<0.1	<2	5	0.03...0.07
ZMM 8B2	8.2	5	8.04...8.36	<7	<50	1	<0.1	<2	6.2	0.03...0.08
ZMM 9B1	9.1	5	8.92...9.28	<10	<50	1	<0.1	<2	6.8	0.03...0.09
ZMM 10B	10	5	9.8...10.2	<15	<70	1	<0.1	<2	7.5	0.03...0.1
ZMM 11B	11	5	10.8...11.2	<20	<70	1	<0.1	<2	8.2	0.03...0.11
ZMM 12B	12	5	11.8...12.2	<20	<90	1	<0.1	<2	9.1	0.03...0.11
ZMM 13B	13	5	12.7...13.3	<26	<110	1	<0.1	<2	10	0.03...0.11
ZMM 15B	15	5	14.7...15.3	<30	<110	1	<0.1	<2	11	0.03...0.11
ZMM 16B	16	5	15.7...16.3	<40	<170	1	<0.1	<2	12	0.03...0.11
ZMM 18B	18	5	17.6...18.4	<50	<170	1	<0.1	<2	13	0.03...0.11
ZMM 20B	20	5	19.6...20.4	<55	<220	1	<0.1	<2	15	0.03...0.11
ZMM 22B	22	5	21.6...22.5	<55	<220	1	<0.1	<2	16	0.04...0.12
ZMM 24B	24	5	23.5...24.5	<80	<220	1	<0.1	<2	18	0.04...0.12
ZMM 27B	27	5	26.4...27.6	<80	<220	1	<0.1	<2	20	0.04...0.12
ZMM 30B	30	5	29.4...30.6	<80	<220	1	<0.1	<2	22	0.04...0.12
ZMM 33B	33	5	32.3...33.7	<80	<220	1	<0.1	<2	24	0.04...0.12
ZMM 36B	36	5	35.2...36.8	<80	<220	1	<0.1	<2	27	0.04...0.12
ZMM 39B	39	2.5	38.2...39.8	<90	<500	0.5	<0.1	<5	30	0.04...0.12
ZMM 43B	43	2.5	42.1...43.9	<90	<500	0.5	<0.1	<5	33	0.04...0.12
ZMM 47B	47	2.5	46.0...48.0	<110	<600	0.5	<0.1	<5	36	0.04...0.12
ZMM 51B	51	2.5	49.9...52.1	<125	<700	0.5	<0.1	<10	39	0.04...0.12
ZMM 56B	56	2.5	54.8...57.2	<135	<700	0.5	<0.1	<10	43	0.04...0.12
ZMM 62B	62	2.5	60.7...63.3	<150	<1000	0.5	<0.1	<10	47	0.04...0.12
ZMM 68B	68	2.5	66.6...69.4	<200	<1000	0.5	<0.1	<10	51	0.04...0.12
ZMM 75B	75	2.5	73.5...76.5	<250	<1000	0.5	<0.1	<10	56	0.04...0.12
ZMM 82B	82	2.5	80.3...83.7	<300	<1500	0.25	<0.1	<10	62	0.05...0.12
ZMM 91B	91	1	89.1...92.9	<450	<2000	0.1	<0.1	<10	68	0.05...0.12
ZMM 100B	100	1	98.0...102.0	<450	<5000	0.1	<0.1	<10	75	0.05...0.12
ZMM 110B	110	1	107.8...112.2	<600	<5000	0.1	<0.1	<10	82	0.05...0.12
ZMM 120B	120	1	117.6...122.4	<800	<5500	0.1	<0.1	<10	91	0.05...0.12
ZMM 130B	130	1	127.4...132.6	<950	<6000	0.1	<0.1	<10	100	0.05...0.12
ZMM 150B	150	1	147.0...153.0	<1250	<6500	0.1	<0.1	<10	110	0.05...0.12
ZMM 160B	160	1	156.8...163.2	<1400	<7000	0.1	<0.1	<10	120	0.05...0.12
ZMM 180B	180	1	176.4...183.6	<1700	<8500	0.1	<0.1	<10	130	0.05...0.12
ZMM 200B	200	1	196.0...204.0	<2000	<10000	0.1	<0.1	<10	150	0.05...0.12

1) Tested with pulses t_p = 20 ms.

1) Valid provided that electrodes are kept at ambient temperature

2) The ZMM1 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.



SEMTECH ELECTRONICS LTD.

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



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



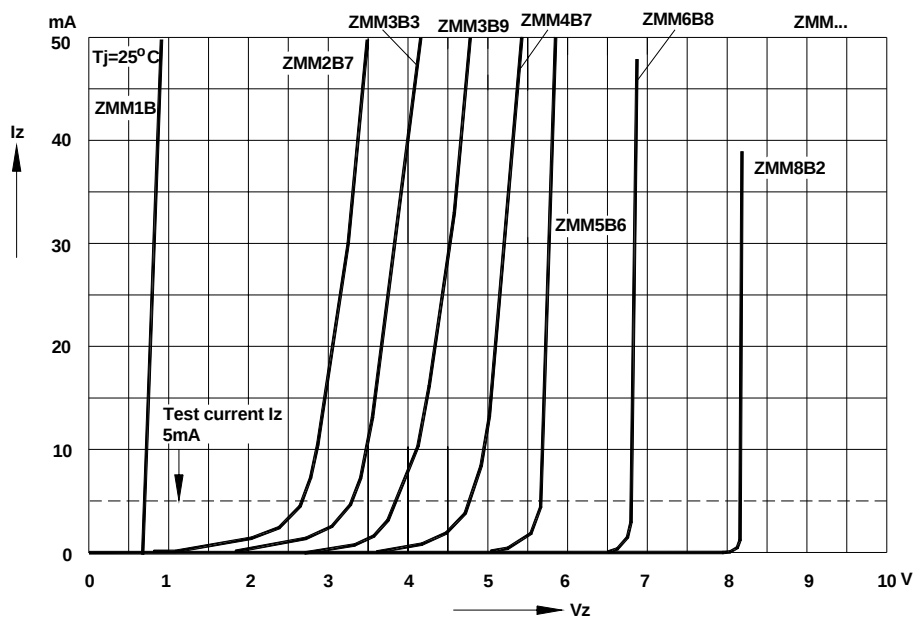
ISO 9001:2000
Certificate No. 0506098

Dated : 20/09/2005

ZMM1B...ZMM200B

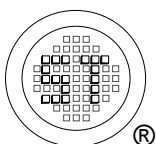
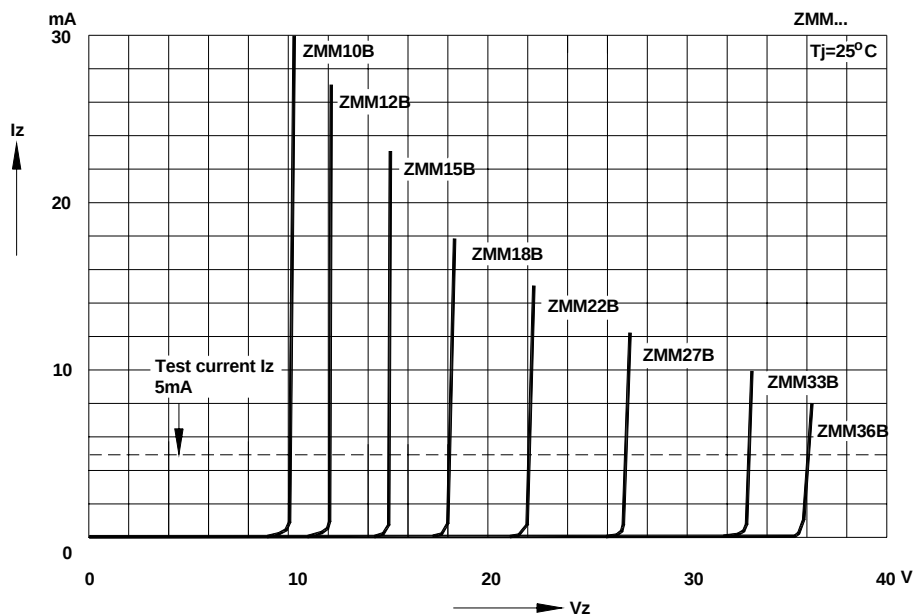
Breakdown characteristics

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



Breakdown characteristics

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



SEMTECH ELECTRONICS LTD.

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



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116

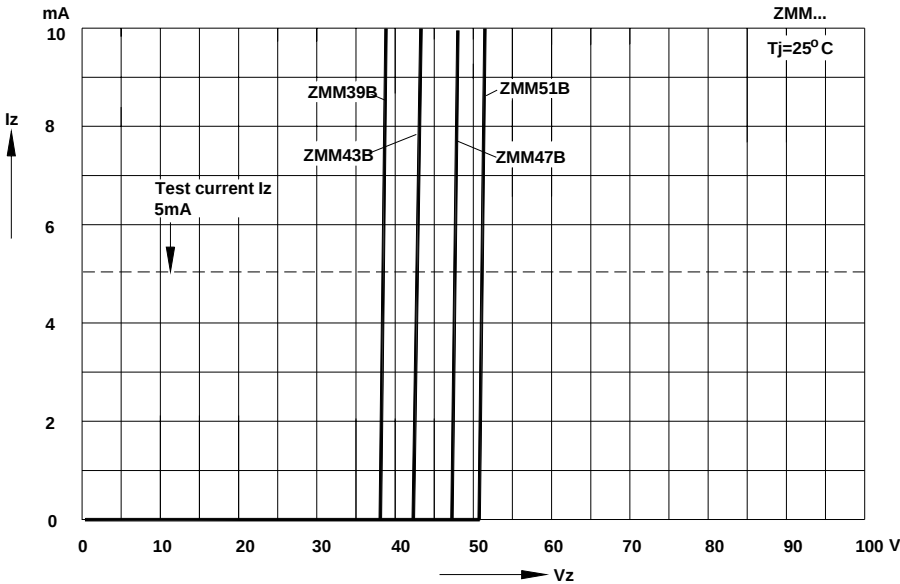


ISO 9001:2000
Certificate No. 0506098

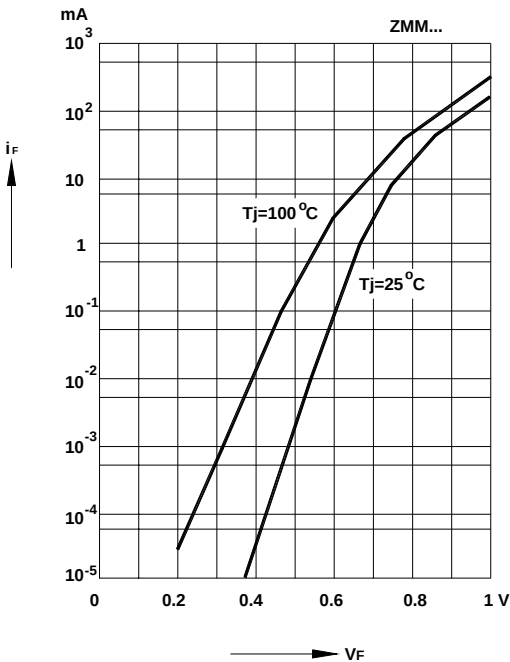
Dated : 20/09/2005

ZMM1B...ZMM200B

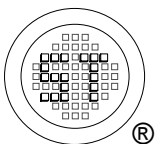
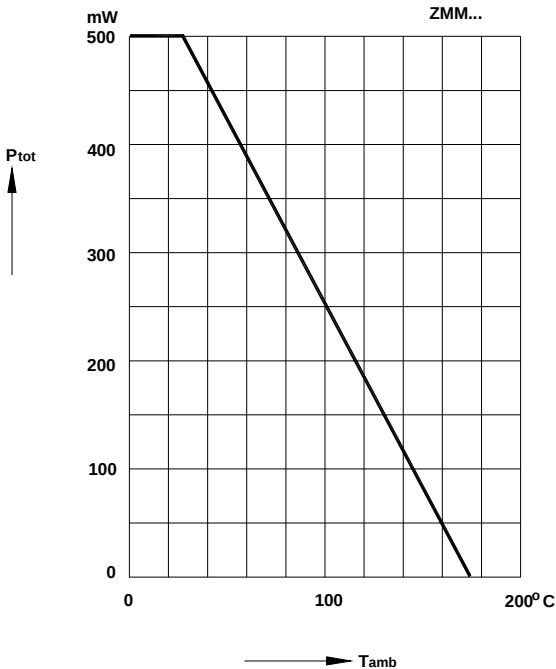
Breakdown characteristics
 $T_j = \text{constant (pulsed)}$



Forward characteristics



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



SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103

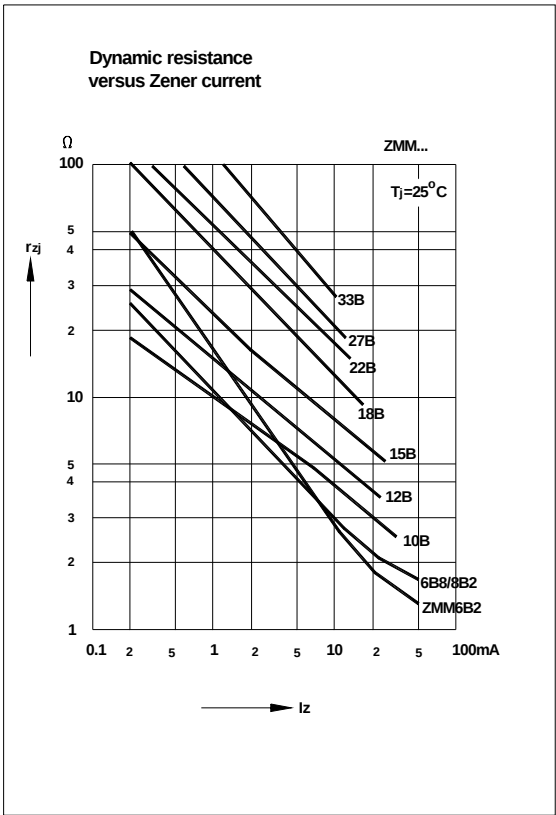
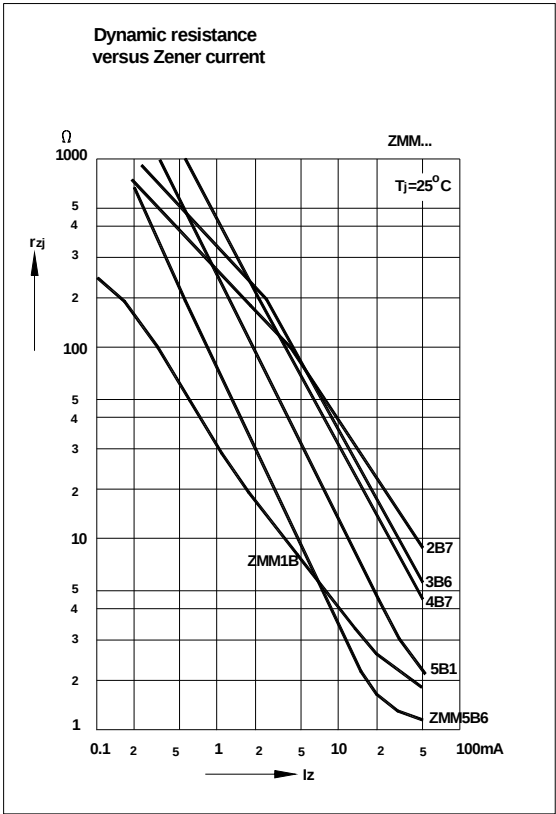


ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

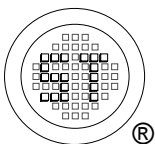
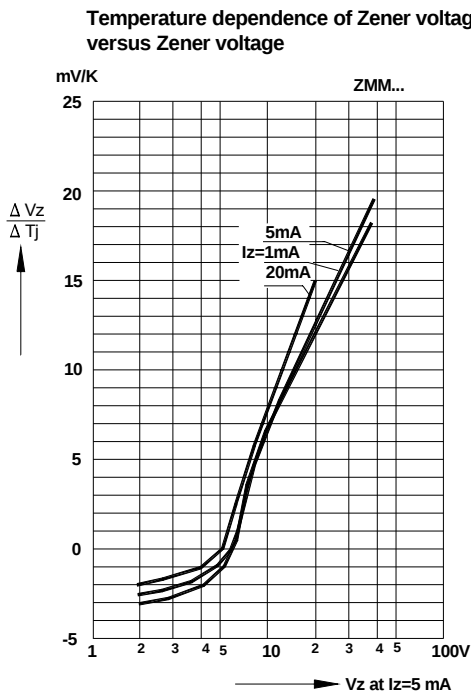
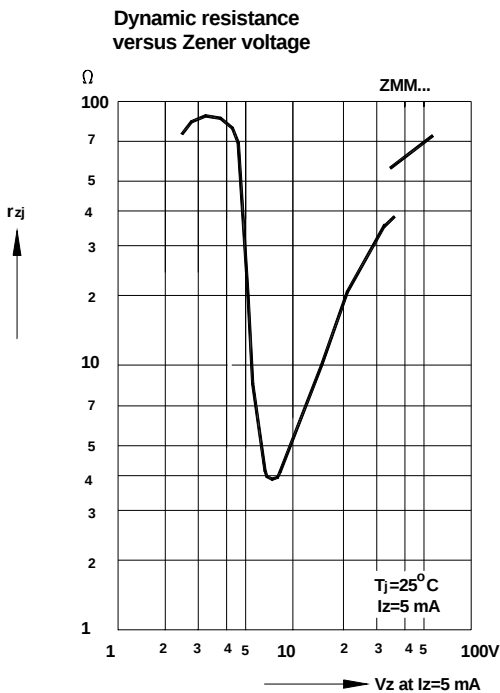
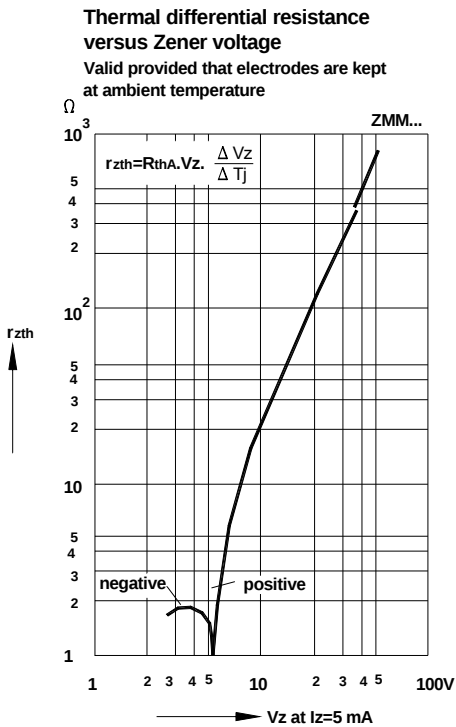
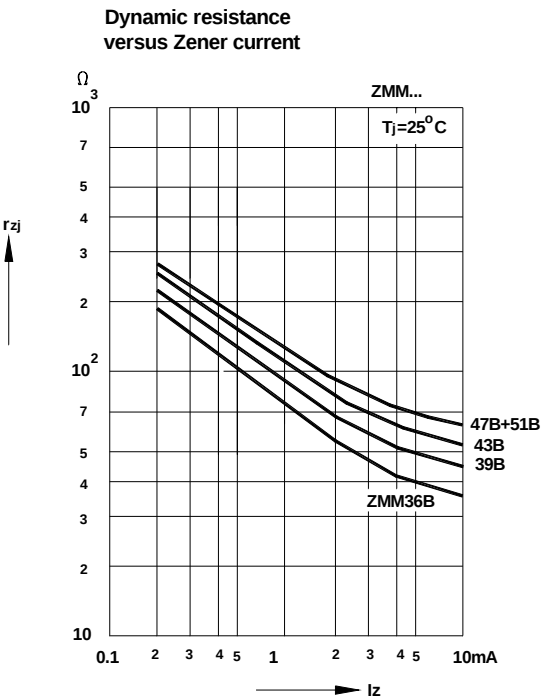
Dated : 20/09/2005



ISO 9001:2000
Certificate No. 0506098

Dated : 20/09/2005

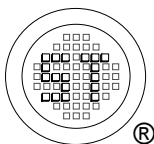
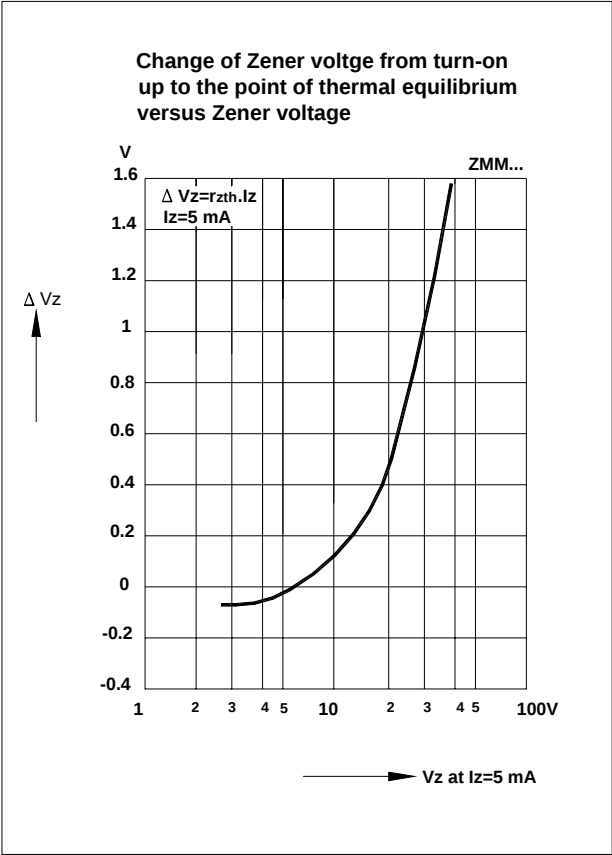
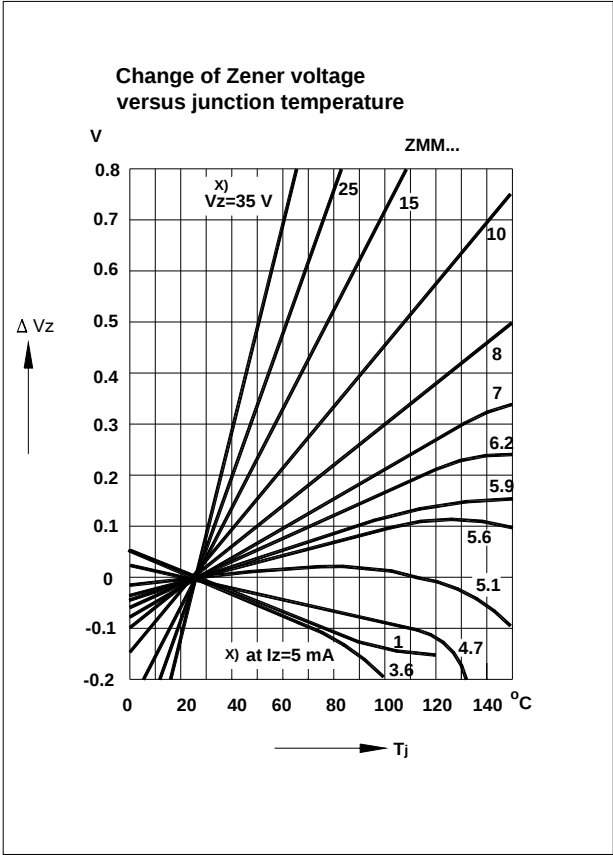
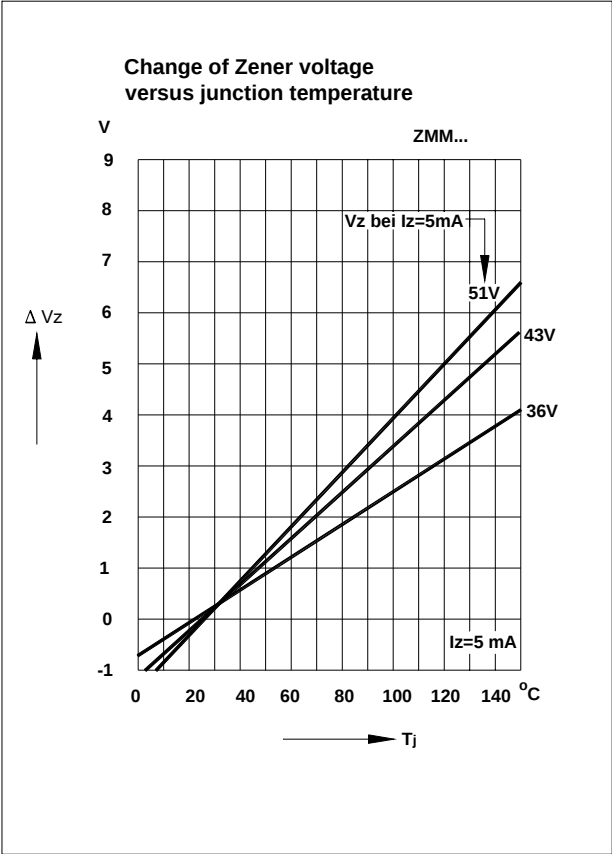
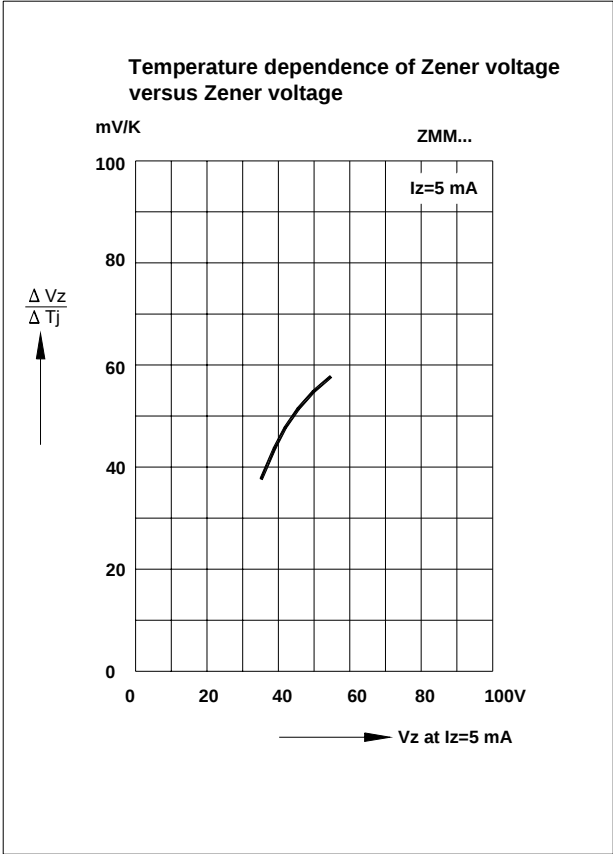
ZMM1B...ZMM200B



SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ZMM1B...ZMM200B

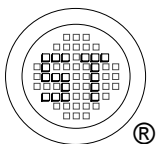
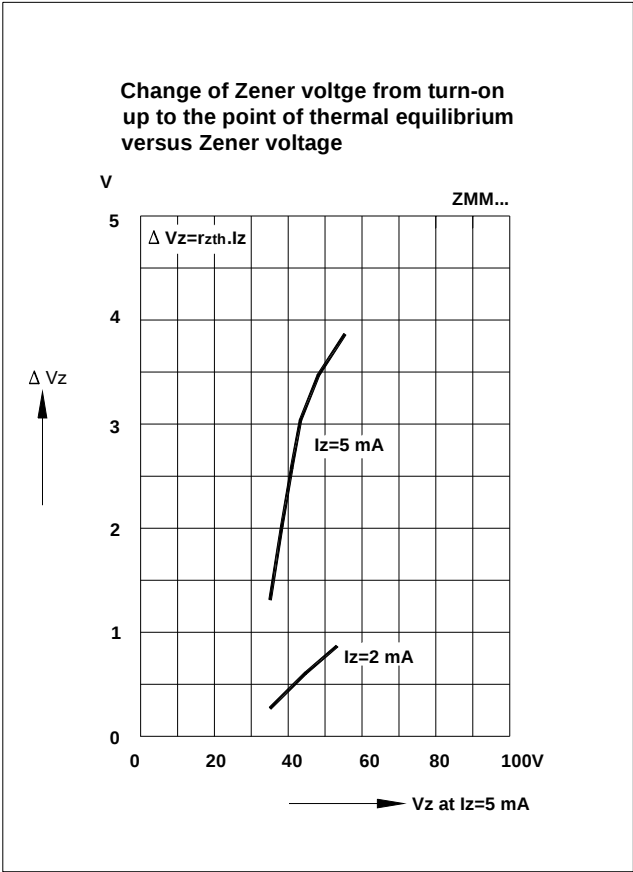


SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 20/09/2005

ZMM1B...ZMM200B



SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 20/09/2005