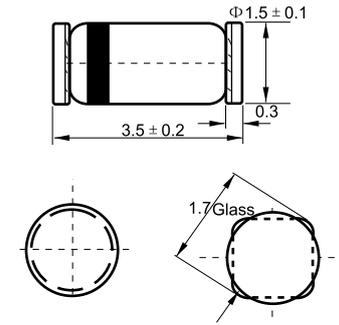


FEATURES

- Silicon Planar Zener Diodes
- High reliability
- Power Dissipation Pd: 500mW
- Mini-Melf SOD-35 Glass Case
- Weight: 0.05 grams

APPLICATIONS

- Voltage stabilization, medium current
- Surface mount applications



SOD-35 MINI-MELF
Dimensions in millimeters

RATINGS & THERMAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	ZMM55C	Unit
Typical Forward Voltage Drop IF = 200mA	VF	1.5	V
Maximum Power Dissipation RthJA< 300KW	Pd	500	mW
Zener Current	Iz	Pv/ vZ	mA
Maximum Thermal Resistance Junction to Ambient Air (Note)	RthJA	500	°C/W
Maximum Operating Temperature Range	TJ	175	°C
Maximum Storage Temperature Range	TSTG	-65 to +175	°C

NOTE: PC Board 50mm x 50mm x 1.6mm

ELECTRICAL CHARACTERISTICS - @ Ta = 25°C unless otherwise specified

Part Number	Zener Voltage Range			Test Current IzT	Maximum Zener Impedance			Maximum Reverse Leakage Current			Typical Temperature TKyz
	Vz @ IzT				RzJT @ IzT		RzJK @ IzK = 0.25mA	@ VR			
	Nom (V)	Min (V)	Max (V)	mA	Ω		mA	µA	mA2	V	% / K
ZMM55C2V4	2.4	2.28	2.56	5	<85	<600	1.0	<50	<100	1.0	-0.09 ~ -0.06
ZMM55C2V7	2.7	2.5	2.9	5	<85	<600	1.0	<10	<50	1.0	-0.09 ~ -0.06
ZMM55C3V0	3.0	2.8	3.2	5	<90	<600	1.0	<4	<40	1.0	-0.08 ~ -0.05
ZMM55C3V3	3.3	3.1	3.5	5	<90	<600	1.0	<2	<40	1.0	-0.08 ~ -0.05
ZMM55C3V6	3.6	3.4	3.8	5	<90	<600	1.0	<2	<40	1.0	-0.08 ~ -0.05
ZMM55C3V9	3.9	3.7	4.1	5	<90	<600	1.0	<2	<40	1.0	-0.08 ~ -0.05
ZMM55C4V3	4.3	4.0	4.6	5	<90	<600	1.0	<1	<20	1.0	-0.06 ~ -0.03
ZMM55C4V7	4.7	4.4	5.0	5	<80	<600	1.0	<0.5	<10	1.0	-0.05 ~ +0.02
ZMM55C5V1	5.1	4.8	5.4	5	<60	<550	1.0	<0.1	<2	1.0	-0.02 ~ +0.02
ZMM55C5V6	5.6	5.2	6.0	5	<40	<450	1.0	<0.1	<2	1.0	-0.05 ~ +0.05
ZMM55C6V2	6.2	5.8	6.6	5	<10	<200	1.0	<0.1	<2	2.0	0.03 ~ 0.06
ZMM55C6V8	6.8	6.4	7.2	5	<8	<150	1.0	<0.1	<2	3.0	0.03 ~ 0.07
ZMM55C7V5	7.5	7.0	7.9	5	<7	<50	1.0	<0.1	<2	5.0	0.03 ~ 0.07
ZMM55C8V2	8.2	7.7	8.7	5	<7	<50	1.0	<0.1	<2	6.2	0.03 ~ 0.08
ZMM55C9V1	9.1	8.5	9.6	5	<10	<50	1.0	<0.1	<2	6.8	0.03 ~ 0.09
ZMM55C10	10	9.4	10.6	5	<15	<70	1.0	<0.1	<2	7.5	0.03 ~ 0.1
ZMM55C11	11	10.4	11.6	5	<20	<70	1.0	<0.1	<2	8.2	0.03 ~ 0.11
ZMM55C12	12	11.4	12.7	5	<20	<90	1.0	<0.1	<2	9.1	0.03 ~ 0.11
ZMM55C13	13	12.4	14.1	5	<26	<110	1.0	<0.1	<2	10	0.03 ~ 0.11

ELECTRICAL CHARACTERISTICS - @ Ta = 25°C unless otherwise specified (Cont'd)

Part Number	Zener Voltage Range			Test Current	Maximum Zener Impedance		Maximum Reverse Leakage Current			Typical Temperature	
	Vz @ IzT				IzT	RzJT @ IzT	RzJK @ IzK = 0.25mA	IR	@ VR		
	Nom (V)	Min (V)	Max (V)	mA	Ω	mA	µA	mA2	V	% / K	
ZMM55C15	15	13.8	15.6	5	<30	<110	1.0	<0.1	<2	11	0.03 ~ 0.11
ZMM55C16	16	15.3	17.1	5	<40	<170	1.0	<0.1	<2	12	0.03 ~ 0.11
18ZMM55C	18	16.8	19.1	5	<50	<170	1.0	<0.1	<2	13	0.03 ~ 0.11
ZMM55C20	20	18.8	21.2	5	<55	<220	1.0	<0.1	<2	15	0.03 ~ 0.11
ZMM55C22	22	20.8	23.3	5	<55	<220	1.0	<0.1	<2	16	0.04 ~ 0.12
ZMM55C24	24	22.8	25.6	5	<80	<220	1.0	<0.1	<2	18	0.04 ~ 0.12
ZMM55C27	27	25.1	28.9	5	<80	<220	1.0	<0.1	<2	20	0.04 ~ 0.12
ZMM55C30	30	28	32	5	<80	<220	1.0	<0.1	<2	22	0.04 ~ 0.12
ZMM55C33	33	31	35	5	<80	<220	1.0	<0.1	<2	24	0.04 ~ 0.12
ZMM55C36	36	34	38	5	<80	<220	1.0	<0.1	<2	27	0.04 ~ 0.12
ZMM55C39	39	37	41	2.5	<90	<500	0.5	<0.1	<5	30	0.04 ~ 0.12
ZMM55C43	43	40	46	2.5	<90	<600	0.5	<0.1	<5	33	0.04 ~ 0.12
ZMM55C47	47	44	50	2.5	<110	<700	0.5	<0.1	<5	36	0.04 ~ 0.12
ZMM55C51	51	48	54	2.5	<125	<700	0.5	<0.1	<10	39	0.04 ~ 0.12
ZMM55C56	56	52	60	2.5	<135	<1000	0.5	<0.1	<10	43	0.04 ~ 0.12
ZMM55C62	62	58	66	2.5	<150	<1000	0.5	<0.1	<10	47	0.04 ~ 0.12
ZMM55C68	68	64	72	2.5	<200	<1000	0.5	<0.1	<10	51	0.04 ~ 0.12
ZMM55C75	75	70	79	2.5	<250	<1500	0.5	<0.1	<10	56	0.04 ~ 0.12

TYPICAL CHARACTERISTIC CURVES - @ Ta = 25°C unless otherwise specified

Fig. 1 - Total Power Dissipation vs. Ambient Temperature

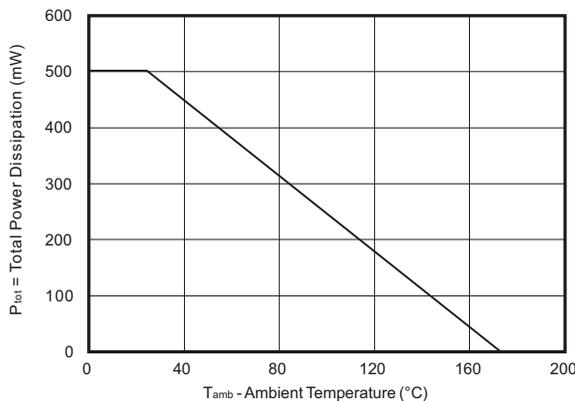


Fig. 2 - Typical Change of Working Voltage under Operating conditions at Tamb = 25°C

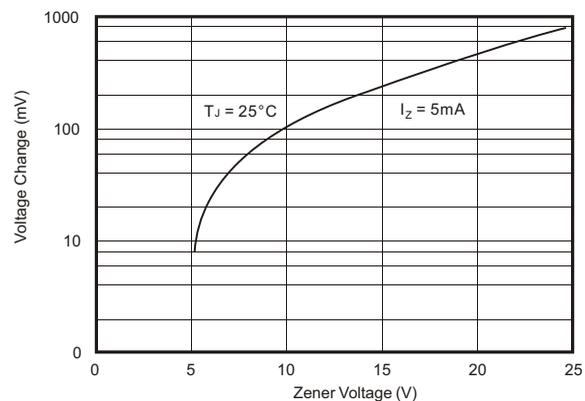


Fig. 3 - Typical Change of Working Voltage vs. Junction Temperature

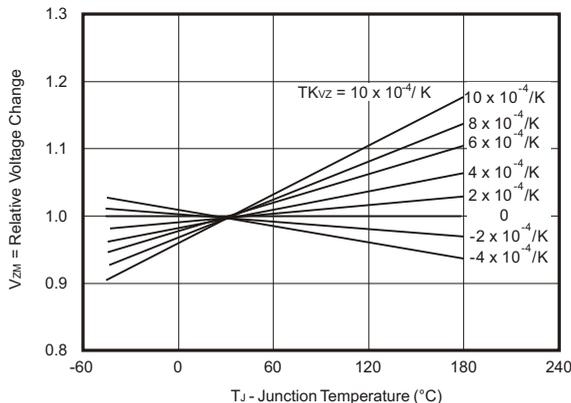
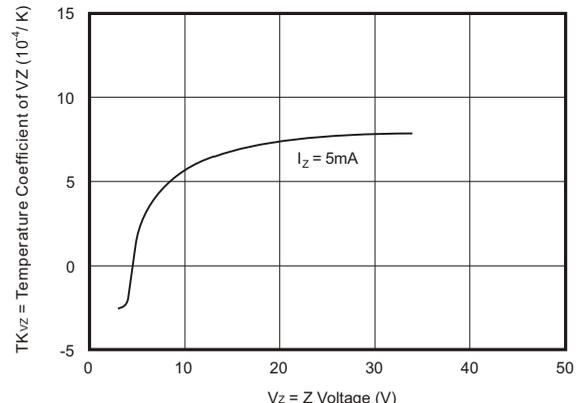


Fig. 4 - Temperature coefficient of Vz vs. Z - Voltage



TYPICAL CHARACTERISTIC CURVES - @ Ta = 25°C unless otherwise specified (Cont'd)

Fig. 5 - Diode Capacitance vs Z-Voltage

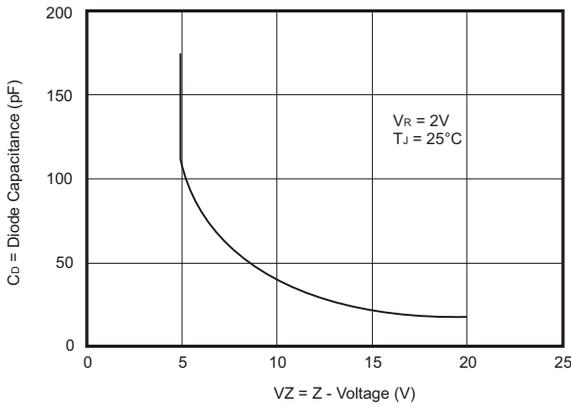


Fig. 6 - Forward Current vs. Forward Voltage

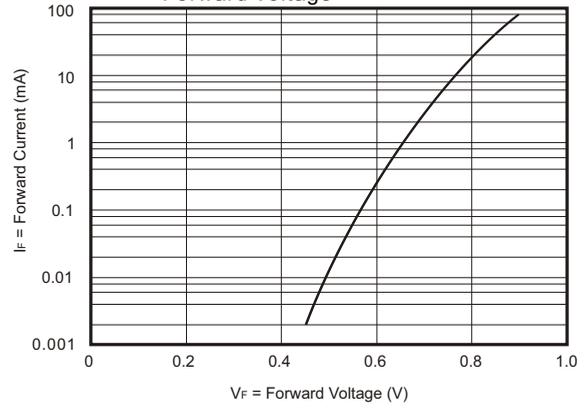


Fig. 7 - Z Current vs. Z-Voltage (V)

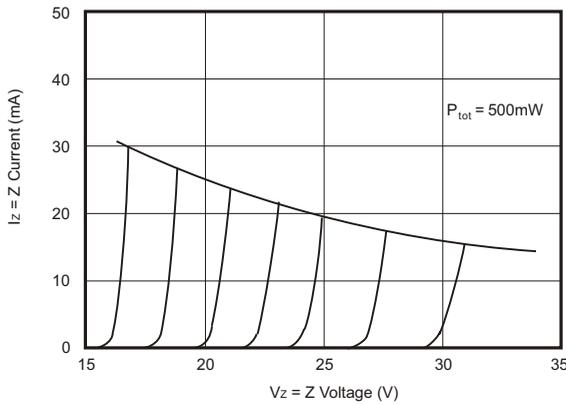


Fig. 8 - Z Current vs. Z Voltage

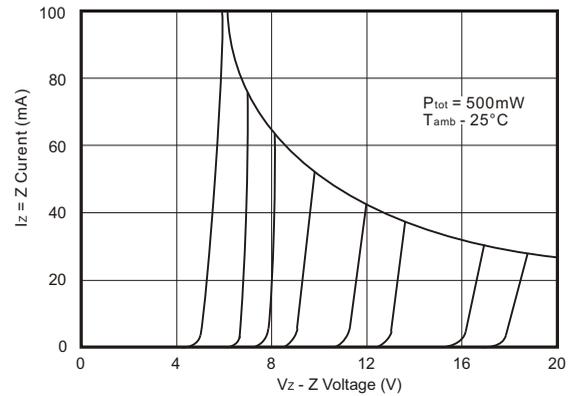


Fig. 9 - Differential Z Resistance vs. Z Voltage

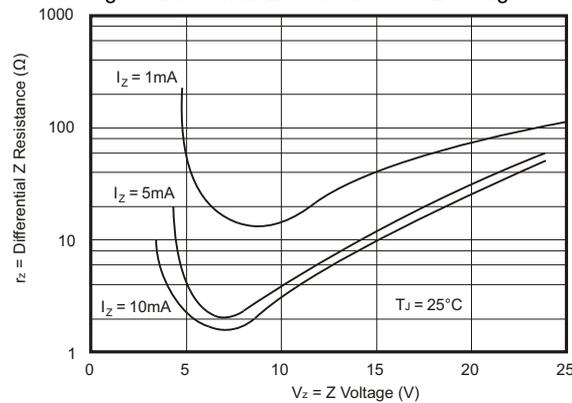


Fig. 10 - Thermal Response

