



ZENER DIODES

POWER DISSIPATION: 500 mW

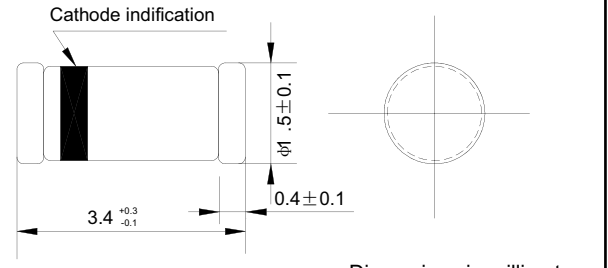
FEATURES

- Low cost
- Small size
- Glass sealed

MECHANICAL DATA

- Case: MINI-MELF, glass case
- Terminals: solderable per MIL-STD-202, method 208
- Polarity: color band denotes cathode
- Mounting position: any
- Weight: 0.031 grams

MINI-MELF



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz.

Electrical characteristics $V_F=1.2V$ max, $I_F = 200mA$ for all types.

JEDEC type no	Nominal zener voltage $V_Z @ I_{ZT}^*$	Test current I_{ZT}	Maximum zener impedance		Typical temperature coefficient	Maximum reverse leakage current		Maximum regulator current I_{ZM}
			$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}=1mA$		I_R	Test voltage suffix b	
	V	mA	Ω	Ω	%/°C	μA	V	mA
ZMM55-C2V2	2.09-2.31	5	85	600	-0.070	50	1.0	170
ZMM55-C2V4	2.28-2.56	5	85	600	-0.070	50	1.0	150
ZMM55-C2V7	2.5-2.9	5	85	600	-0.070	10	1.0	135
ZMM55-C3V0	2.8-3.2	5	85	600	-0.070	4	1.0	125
ZMM55-C3V3	3.1-3.5	5	85	600	-0.065	2	1.0	115
ZMM55-C3V6	3.4-3.8	5	85	600	-0.060	2	1.0	105
ZMM55-C3V9	3.7-4.1	5	85	600	-0.050	2	1.0	95
ZMM55-C4V3	4.0-4.6	5	75	600	-0.025	1	1.0	90
ZMM55-C4V7	4.4-5.0	5	60	600	-0.010	0.5	1.0	85
ZMM55-C5V1	4.8-5.4	5	35	550	+0.015	0.1	1.0	80
ZMM55-C5V6	5.2-6.0	5	25	450	+0.025	0.1	1.0	70
ZMM55-C6V2	5.8-6.6	5	10	200	+0.035	0.1	2.0	64
ZMM55-C6V8	6.4-7.2	5	8	150	+0.045	0.1	3.0	58
ZMM55-C7V5	7.0-7.9	5	7	50	+0.050	0.1	5.0	53
ZMM55-C8V2	7.7-8.7	5	7	50	+0.050	0.1	6.0	47
ZMM55-C9V1	8.5-9.6	5	10	50	+0.060	0.1	7.0	43
ZMM55-C10	9.4-10.6	5	15	70	+0.070	0.1	7.5	40
ZMM55-C11	10.4-11.6	5	20	70	+0.070	0.1	8.5	36
ZMM55-C12	11.4-12.7	5	20	90	+0.070	0.1	9.0	32
ZMM55-C13	12.4-14.1	5	26	110	+0.070	0.1	10	29
ZMM55-C15	14.2-15.8	5	30	110	+0.070	0.1	11	27
ZMM55-C16	15.3-17.1	5	40	170	+0.070	0.1	12	24
ZMM55-C18	16.8-19.1	5	50	170	+0.070	0.1	14	21
ZMM55-C20	18.8-21.2	5	55	220	+0.070	0.1	15	20
ZMM55-C22	20.8-23.3	5	55	220	+0.070	0.1	17	18
ZMM55-C24	22.8-25.6	5	80	220	+0.080	0.1	18	16
ZMM55-C27	25.1-28.9	5	80	220	+0.080	0.1	20	14
ZMM55-C30	28-32	5	80	220	+0.080	0.1	22	13
ZMM55-C33	31-35	5	80	220	+0.080	0.1	24	12
ZMM55-C36	34-38	5	80	220	+0.080	0.1	27	11
ZMM55-C39	37-41	2.5	90	500	+0.080	0.1	30	10
ZMM55-C43	40-46	2.5	90	600	+0.080	0.1	33	9.2
ZMM55-C47	44-50	2.5	100	700	+0.080	0.1	36	8.5

NOTE: * Measured with pulses $T_p=20ms$

1. Suffix "A" for $\pm 1\%$, Suffix "B" for $\pm 2\%$, Suffix "C" for $\pm 5\%$, Suffix "D" for $\pm 10\%$.

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FIG.1- BREAKDOWN CHARACTERISTICS

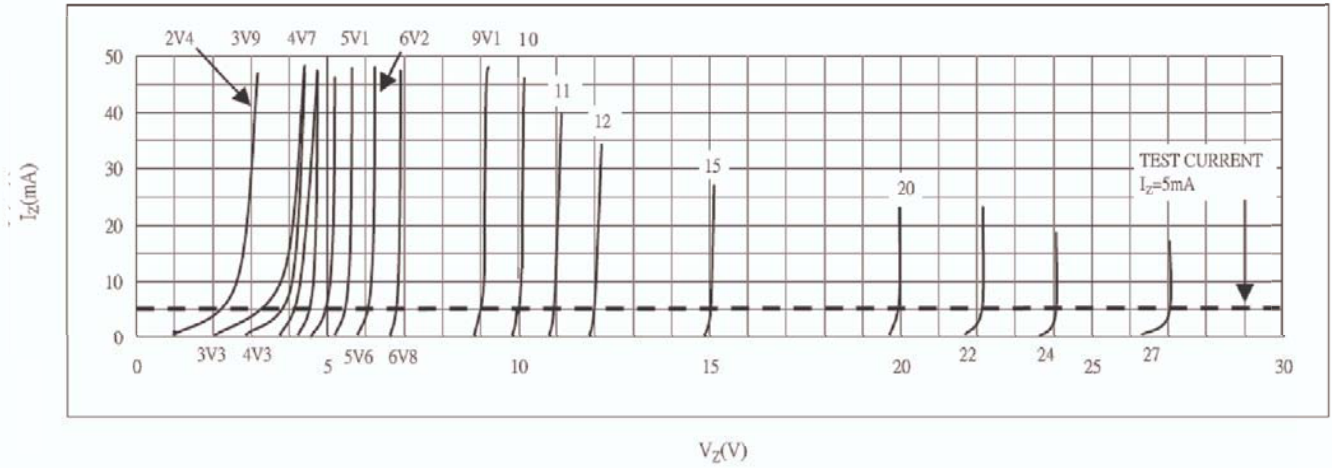


FIG.2- POWER .TEMPERATURE DERATING CURVE

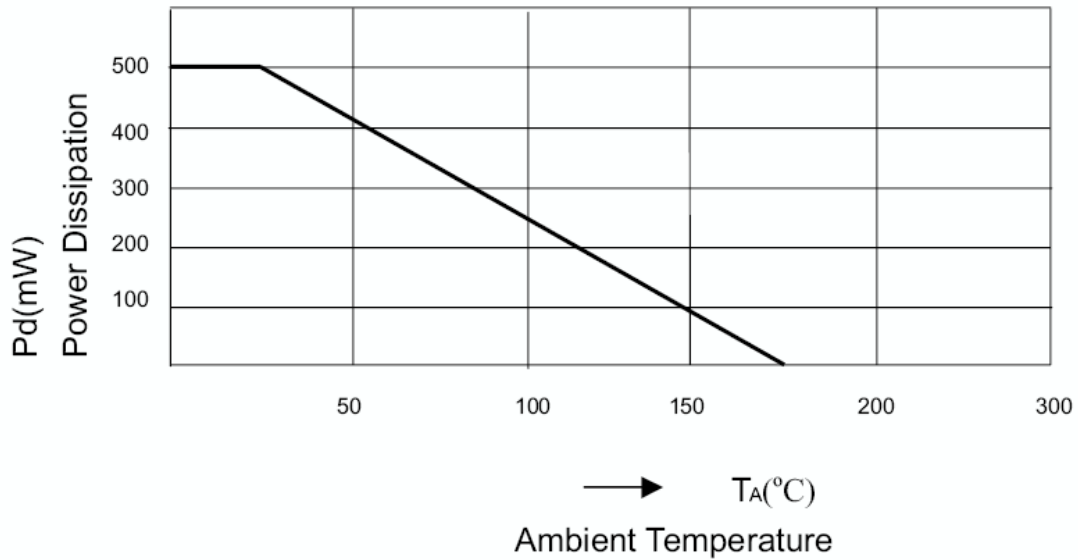


FIG. 3 -- Forward Current vs. Forward Voltage

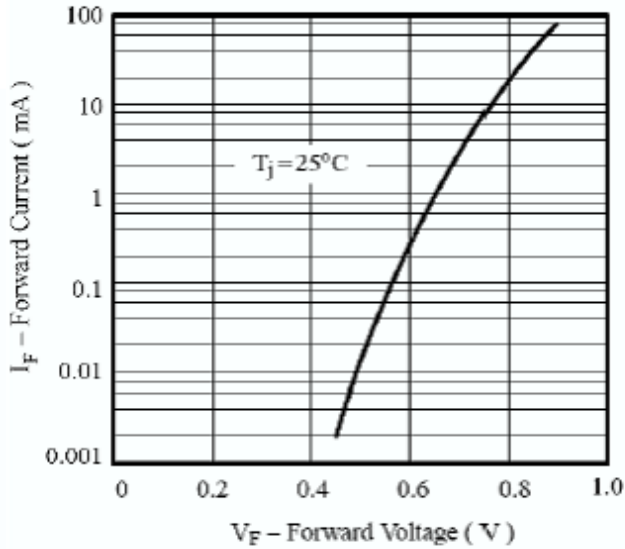


FIG. 4 -- Z-Current vs. Z-Voltage

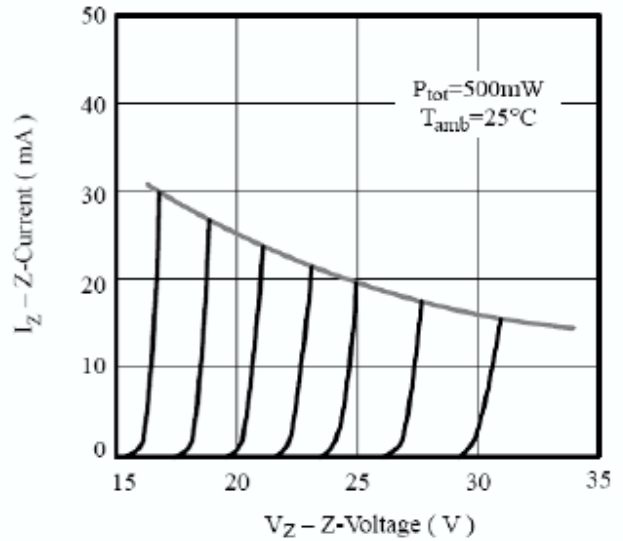


FIG. 5 -- Diode Capacitance vs. Z-Voltage

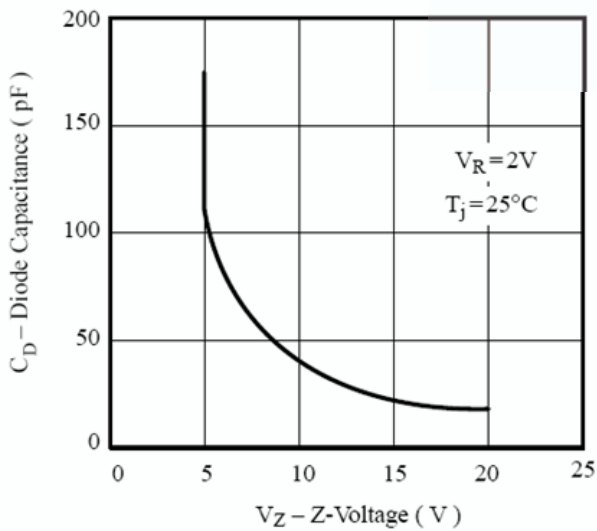


FIG. 6 -- Differential Z-Resistance vs. Z-Voltage

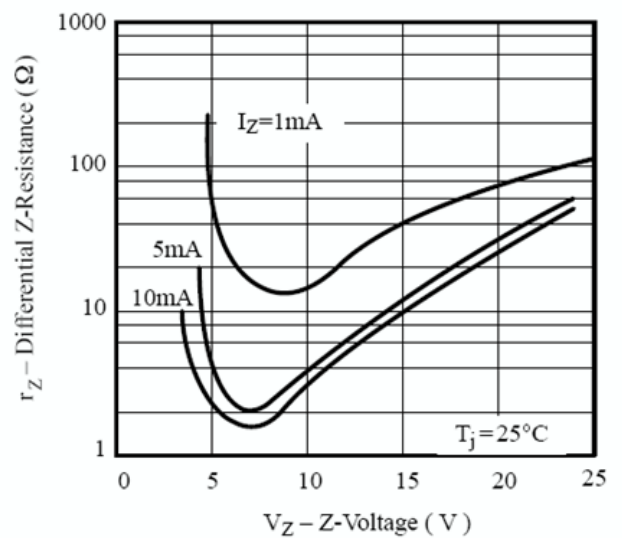
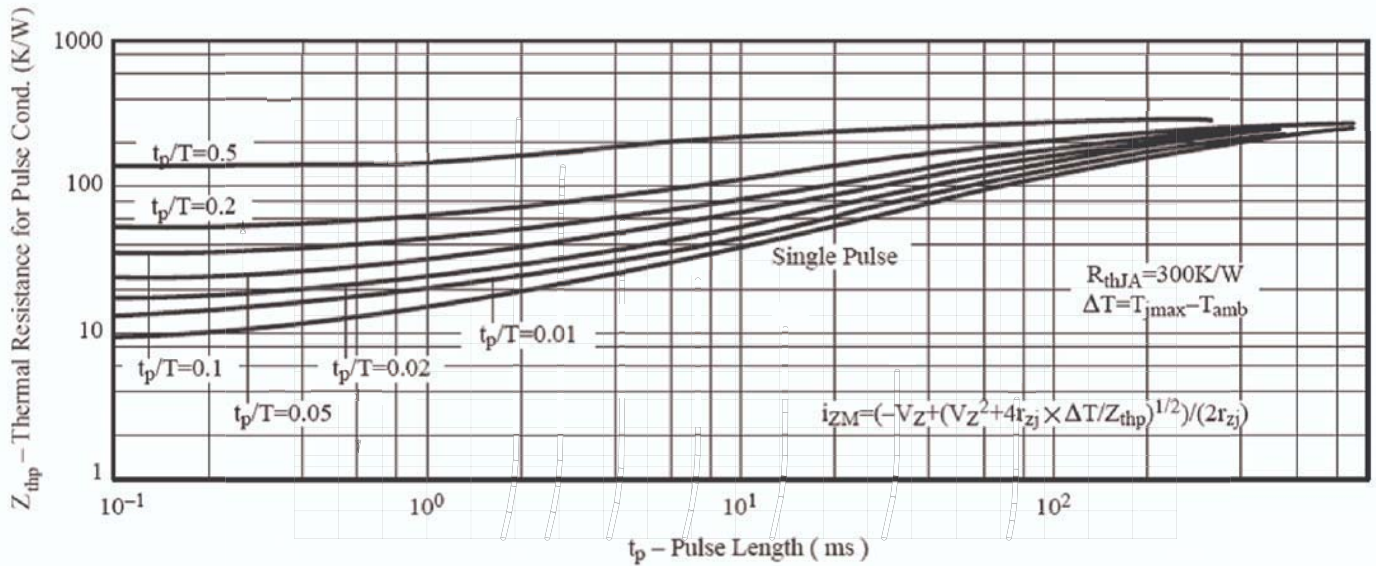


FIG .7 -- Thermal Response



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Zener current (see Table "Characteristics")			
Power dissipation @ $T_{amb} = 25^\circ C$	P_{tot}	500 ¹⁾	mW
Junction temperature	T_J	175	°C
Storage temperature range	T_s	-55—+175	°C

	SYMBOL	MIN	TYP	MAX	UNIT
Thermal resistance junction to ambient	R_{thJA}	—	—	300 ¹⁾	°C /W
Forward voltage at $I_F = 200mA$	V_F	—	—	1.2	V