



# ZMM55-C2V4 SERIES

SURFACE MOUNT ZENER DIODES

**Voltage Range 2.4-47 Volts**

**Power 500mWatts**

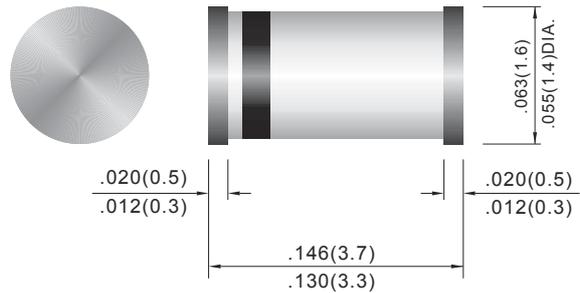
## Features

- \* Planar Die construction
- \* 500mW Power Dissipation
- \* Ideally Suited for Automated Assembly Processes
- \* Pb free product are available : 99% Sn above can meet Rohsenvironment substance directive request

## Mechanical Data

Case: Molded Glass MINI-MELF  
 Terminals: Solderable per MIL-STD-750, Method 2026  
 Polarity: See Diagram Below  
 Approx. Weight: 0.03 gram  
 Mounting Position: Any  
 Packing information  
 T/R - 2.5K per 7" plastic Reel

## MINI-MELF/LL-34



Dimensions in millimeters

## Maximum Ratings and Electrical Characteristics

Parameter	Symbol	Value	Units
Power Dissipation at Tamb = 25 °C	P <sub>TOT</sub>	500	mW
Junction Temperature	T <sub>J</sub>	175	°C
Storage Temperature Range	T <sub>S</sub>	-55 to +175	°C

Valid provided that leads at a distance of 8mm from case are kept at ambient temperature.

Parameter	Symbol	Min	Typ .	Max.	Unit s
Thermal Resistance Junction to Ambient Air	R <sub>thA</sub>	--	--	0.3	K/mW
Forward Voltage at I <sub>F</sub> = 100mA	V <sub>F</sub>	--	--	1	V

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Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking code
	Vz @ IzT			ZzT @ IzT		Zzk @ Izk		I <sub>R</sub> @ V <sub>R</sub>		
	Nom. V	Min. V	Max. V	□	mA	□	mA	uA	V	
ZMM55-C2V4	2.4	2.28	2.56	85	5	600	1.0	50	1.0	C2V4
ZMM55-C2V7	2.7	2.5	2.9	85	5	600	1.0	10	1.0	C2V7
ZMM55-C3V0	3.0	2.8	3.2	85	5	600	1.0	4	1.0	C3V0
ZMM55-C3V3	3.3	3.1	3.5	85	5	600	1.0	2	1.0	C3V3
ZMM55-C3V6	3.6	3.4	3.8	85	5	600	1.0	2	1.0	C3V6
ZMM55-C3V9	3.9	3.7	4.1	85	5	600	1.0	2	1.0	C3V9
ZMM55-C4V3	4.3	4.0	4.6	75	5	600	1.0	1	1.0	C4V3
ZMM55-C4V7	4.7	4.4	5.0	60	5	600	1.0	0.5	1.0	C4V7
ZMM55-C5V1	5.1	4.8	5.4	35	5	550	1.0	0.1	1.0	C5V1
ZMM55-C5V6	5.6	5.2	6.0	25	5	450	1.0	0.1	1.0	C5V6
ZMM55-C6V2	6.2	5.8	6.6	10	5	200	1.0	0.1	2.0	C6V2
ZMM55-C6V8	6.8	6.4	7.2	8	5	150	1.0	0.1	3.0	C6V8
ZMM55-C7V5	7.5	7.0	7.9	7	5	50	1.0	0.1	5.0	C7V5
ZMM55-C8V2	8.2	7.7	8.7	7	5	50	1.0	0.1	6.0	C8V2
ZMM55-C9V1	9.1	8.5	9.6	10	5	50	1.0	0.1	7.0	C9V1
ZMM55-C10	10	9.4	10.6	15	5	70	1.0	0.1	7.5	C10V
ZMM55-C11	11	10.4	11.6	20	5	70	1.0	0.1	8.5	C11V
ZMM55-C12	12	11.4	12.7	20	5	90	1.0	0.1	9.0	C12V
ZMM55-C13	13	12.4	14.1	26	5	110	1.0	0.1	10	C13V
ZMM55-C15	15	13.8	15.6	30	5	110	1.0	0.1	11	C15V
ZMM55-C16	16	15.3	17.1	40	5	170	1.0	0.1	12	C16V
ZMM55-C18	18	16.8	19.1	50	5	170	1.0	0.1	14	C18V
ZMM55-C20	20	18.8	21.2	55	5	220	1.0	0.1	15	C20V
ZMM55-C22	22	20.8	23.3	55	5	220	1.0	0.1	17	C22V
ZMM55-C24	24	22.8	25.6	80	5	220	1.0	0.1	18	C24V
ZMM55-C27	27	25.1	28.9	80	5	220	1.0	0.1	20	C27V
ZMM55-C30	30	28	32	80	5	220	1.0	0.1	22	C30V
ZMM55-C33	33	31	35	80	5	220	1.0	0.1	24	C33V
ZMM55-C36	36	34	38	80	5	220	1.0	0.1	27	C36V
ZMM55-C39	39	37	41	90	2.5	500	1.0	0.1	30	C39V
ZMM55-C43	43	40	46	90	2.5	600	1.0	0.1	33	C43V
ZMM55-C47	47	44	50	110	2.5	700	1.0	0.1	36	C47V



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## Typical Characteristics ( $T_{amb}=25^{\circ}C$ , unless otherwise specified)

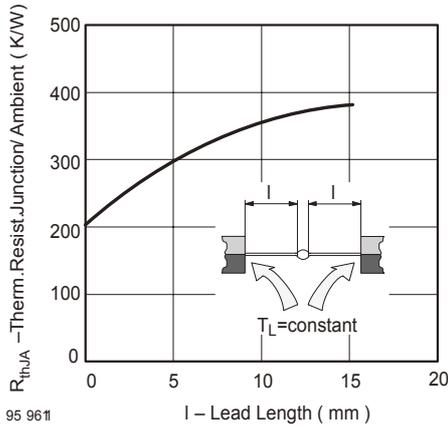


Fig.1 Thermal Resistance vs. Lead Length

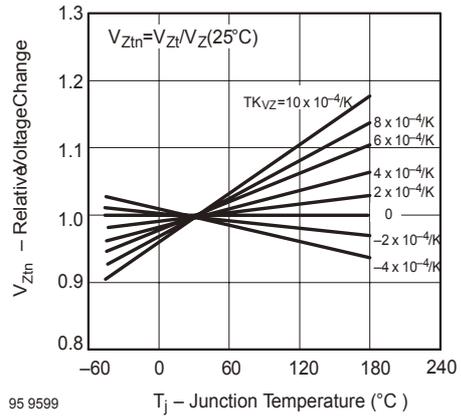


Fig.4 Typical Change of Working Voltage vs. Junction Temperature

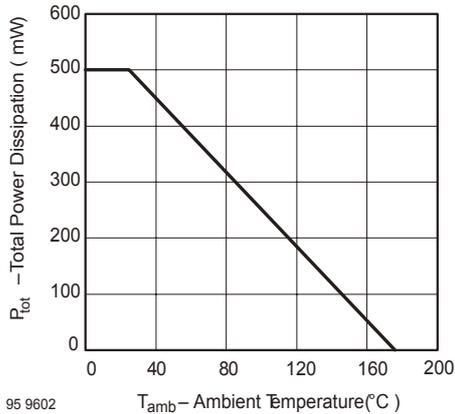


Fig.2 Total Power Dissipation vs. Ambient Temperature

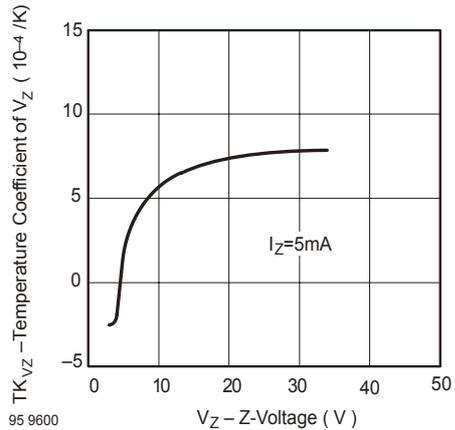


Fig.5 Temperature Coefficient of  $V_Z$  vs. Z-Voltage

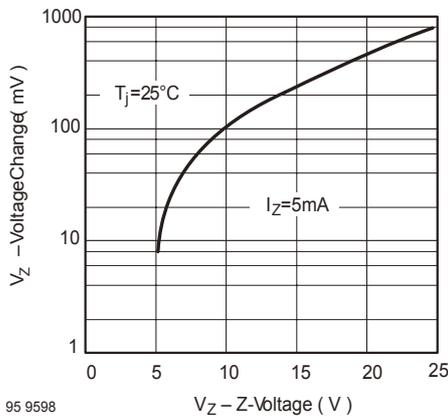


Fig.3 Typical Change of Working Voltage under Operating Conditions at  $T_{amb}=25^{\circ}C$

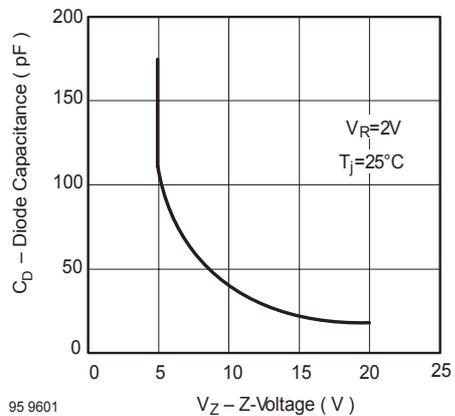


Fig.6 Diode Capacitance vs. Z-Voltage



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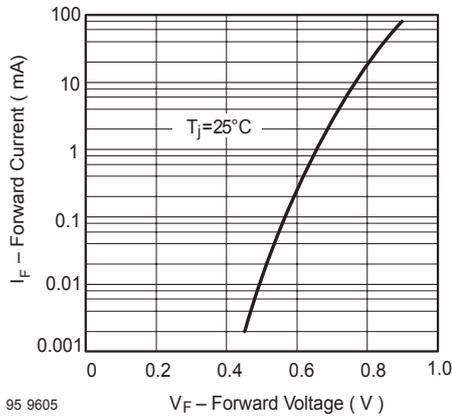


Fig.7 Forward Current vs. Forward Voltage

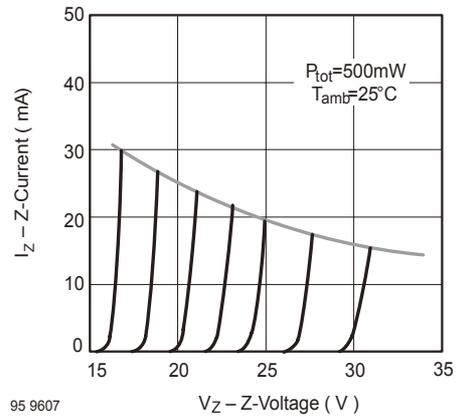


Fig.9 Z-Current vs. Z-Voltage

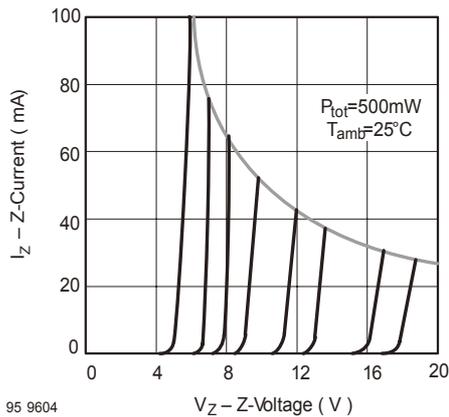


Fig.8 Z-Current vs. Z-Voltage

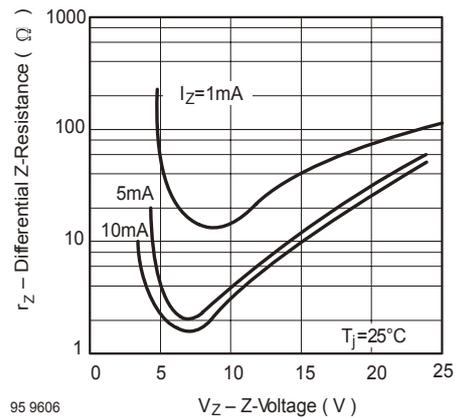


Fig.10 Differential Z-Resistance vs. Z-Voltage

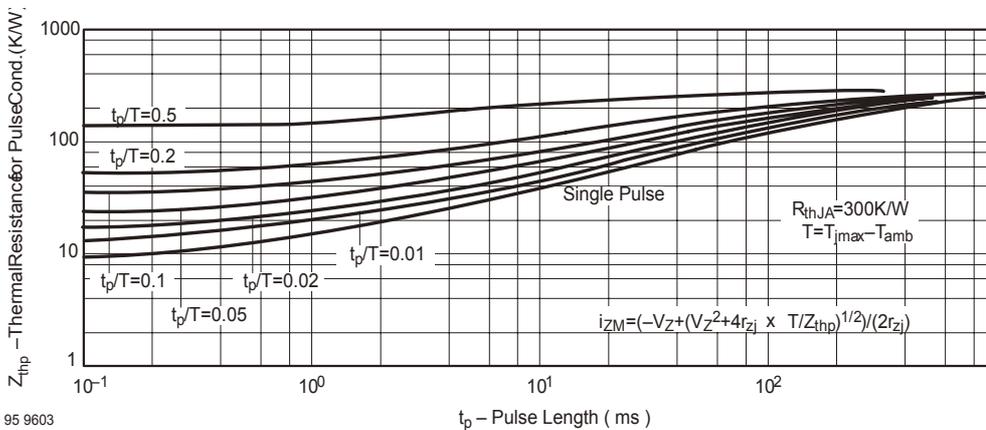


Fig.11 Thermal Response



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## 2. MARKING

