ZMM55B/C Series

500 mW LL-34 Hermetically Sealed Glass Zener Voltage Regulators

Absolute Maximum Ratings T_A = 25°C unless otherwise noted

Parameter	Value	Units
Power Dissipation	500	mW
Storage Temperature Range	-65 to +175	°C
Operating Junction Temperature	+175	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

LL-34/SOD-80

Specification Features:

- Zener Voltage Range 2.0 to 75 Volts
- ZMM55Bxxx - VZ tolerance ± 2%
- ZMM55Cxxx - VZ tolerance ± 5%
- LL-34/SOD-80 (Mini-MELF) Package
- Surface Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Terminals Are Readily Solderable
- RoHS Compliant
- Matte Tin (Sn) Terminal Finish
- Color band Indicates Negative Polarity

Electrical Characteristics T_A = 25°C unless otherwise noted

Device Type	V_Z @ I_{ZT} (Volts) Nominal	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
ZMM55C2V0	2.0	5	100	120	0.5
ZMM55C2V2	2.2	5	100	120	0.7
ZMM55C2V4	2.4	5	100	120	1
ZMM55C2V7	2.7	5	110	100	1
ZMM55C3V0	3.0	5	120	50	1
ZMM55C3V3	3.3	5	120	20	1
ZMM55C3V6	3.6	5	100	10	1
ZMM55C3V9	3.9	5	100	5	1
ZMM55C4V3	4.3	5	100	5	1
ZMM55C4V7	4.7	5	80	5	1
ZMM55C5V1	5.1	5	80	5	1.5
ZMM55C5V6	5.6	5	60	5	2.5
ZMM55C6V2	6.2	5	60	5	3
ZMM55C6V8	6.8	5	20	2	3.5
ZMM55C7V5	7.5	5	20	0.5	4
ZMM55C8V2	8.2	5	20	0.5	5
ZMM55C9V1	9.1	5	25	0.5	6
ZMM55C10	10	5	30	0.2	7
ZMM55C11	11	5	30	0.2	8
ZMM55C12	12	5	30	0.2	9

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Electrical Characteristics

T_A = 25°C unless otherwise noted

Device Type	V_Z @ I_{ZT} (Volts) Nominal	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
ZMM55C13	13	5	35	0.2	10
ZMM55C15	15	5	40	0.2	11
ZMM55C16	16	5	40	0.2	12
ZMM55C18	18	5	45	0.2	13
ZMM55C20	20	5	45	0.2	15
ZMM55C22	22	5	30	0.2	17
ZMM55C24	24	5	35	0.2	19
ZMM55C27	27	2	45	0.2	21
ZMM55C30	30	2	55	0.2	23
ZMM55C33	33	2	65	0.2	25
ZMM55C36	36	2	75	0.2	27
ZMM55C39	39	2	85	0.2	30
ZMM55C43	43	2	90	0.2	33
ZMM55C47	47	2	90	0.2	36
ZMM55C51	51	2	110	0.2	39
ZMM55C56	56	2	110	0.2	43
ZMM55C62	62	2	201	0.2	47
ZMM55C68	68	2	230	0.2	51
ZMM55C75	75	2	240	0.2	56
V_F Forward Voltage = 1.2 V Maximum @ I_F = 200 mA for all types					

Notes:

1. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

Typical Characteristics

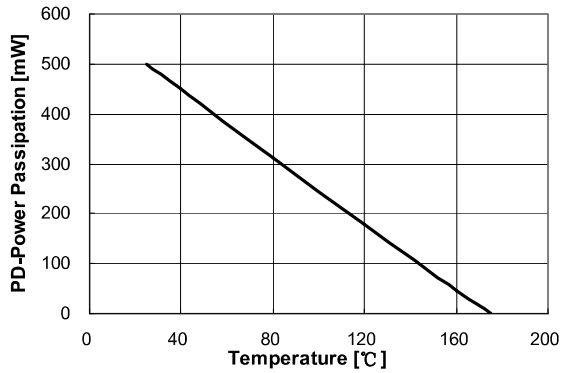


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

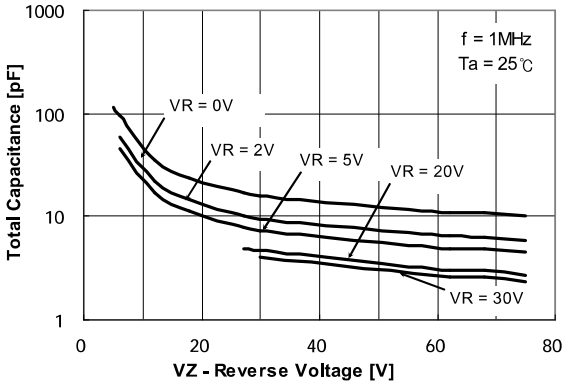


Figure 2. Total Capacitance

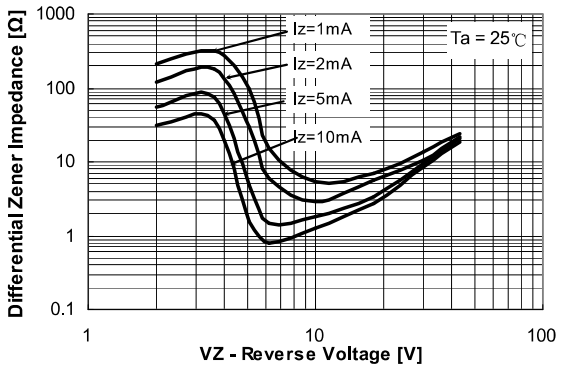


Figure 3. Differential Impedance vs. Zener Voltage

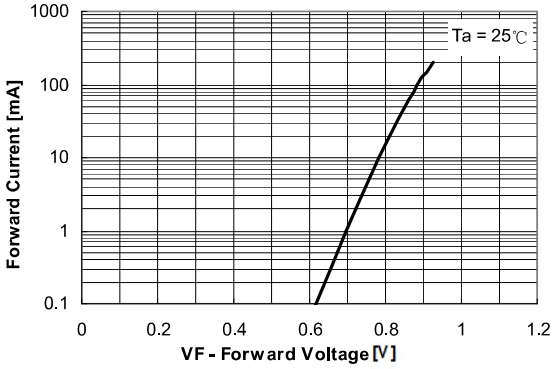


Figure 4. Forward Current vs. Forward Voltage

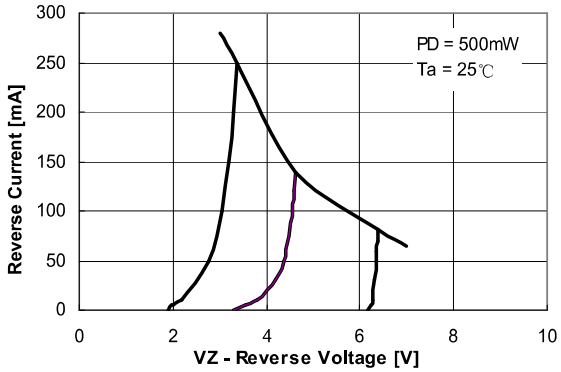


Figure 5. Reverse Current vs. Reverse Voltage

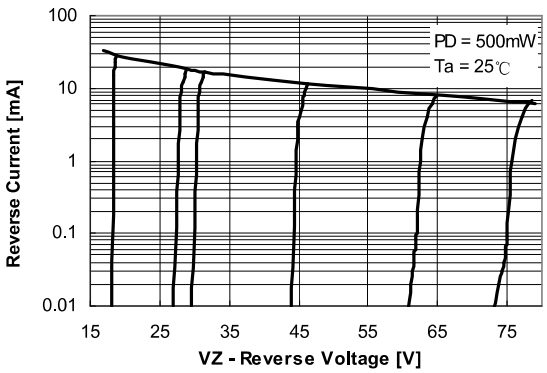
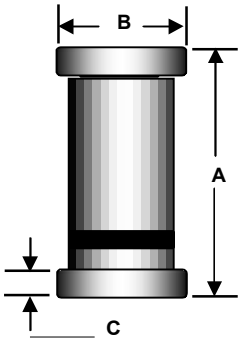


Figure 6. Reverse Current vs. Reverse Voltage

Package Outline

Package	Case Outline
LL34	

DIM	LL-34			
	Millimeters		Inches	
	Min	Max	Min	Max
A	3.30	3.60	0.130	0.142
B	1.40	1.60	0.055	0.060
C	0.35	0.50	0.014	0.020

Notes:

1. All dimensions are within DO213AC JEDEC standard.
2. LL-34/SOD-80 polarity denoted by cathode band.