

# 2.4V to 110V MLL ZENER DIODES (1/2 Watt)

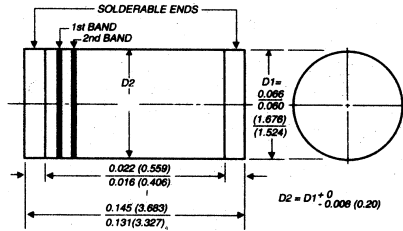
**MLL 700, 900 & 4300 Series**

## Description

**DO-213AA  
(Mini-MELF)**



## Mechanical Dimensions



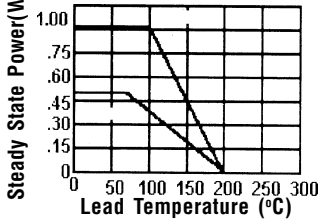
Dimensions in inches  
and (millimeters)

## Features

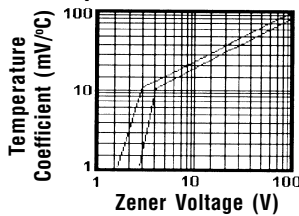
- WIDE VOLTAGE RANGES - 2.4 TO 110 VOLTS
- 5 & 10% VOLTAGE TOLERANCES AVAILABLE
- MEETS UL SPECIFICATION 94V-0

	Units
<b>Maximum Ratings</b>	
DC Power Dissipation with $T_A = 50^\circ\text{C} \dots P_D$	500 mW
Derate Above $50^\circ\text{C}$	3.3 mW / $^\circ\text{C}$
Operating & Storage Temperature Range... $T_J, T_{STRG}$	-65 to 200 $^\circ\text{C}$

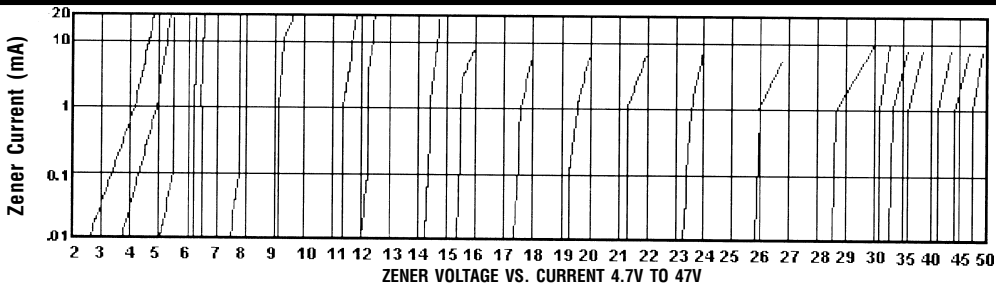
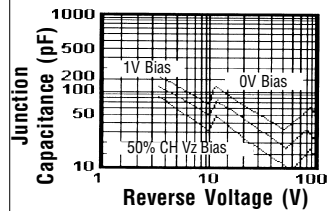
**Steady State Power Derating**



**Temp. Coefficients vs. Voltage**



**Typical Junction Capacitance**



ZENER VOLTAGE VS. CURRENT 4.7V TO 47V

# 2.4V to 110V MLL ZENER DIODES (1/2 Watt)

MLL700, 900 &  
4300 Series

## Electrical Characteristics @ 25°C.

Part #	Nominal Zener Voltage	Test Current $I_{ZT}$ (mA)	Max. Zener Impedance $Z_{ZT}$ @ $I_{ZT}$ ( $\Omega$ )	Max. DC Zener Current		Max. Reverse Current $T_A = 25^\circ\text{C}$ $V_A = 1\text{V}$		Max. Leakage Current $T_A = 150^\circ\text{C}$	
				(mA)	(mA)	( $\mu\text{A}$ )	( $\mu\text{A}$ )	( $\mu\text{A}$ )	( $\mu\text{A}$ )
MLL4370	2.4	20	30	150	190	100		200	
MLL4371	2.7	20	30	135	165	75		160	
MLL4372	3.0	20	29	120	150	50		100	
MLL740	3.3	20	28	110	135	10		30	
MLL745	3.6	20	24	100	125	10		30	
MLL748	3.9	20	23	95	115	10		30	
MLL749	4.3	20	22	85	105	3		30	
MLL750	4.7	20	10	75	95	2		30	
MLL751	5.1	20	12	70	85	1		20	
MLL752	5.6	20	11	65	80	1		20	
MLL753	6.2	20	7	60	70	0.1		20	
MLL754	6.8	20	5	55	65	0.1		20	
MLL755	7.5	20	6	50	60	0.1		20	
MLL756	8.2	20	8	45	55	0.1		20	
MLL757	9.1	20	10	40	50	0.1		20	
MLL758	10	20	12	35	45	0.1		20	
MLL759	12	20	30	30	35	0.1		20	

Part # Jedec Type #	Nominal Zener Voltage	Test Current $I_{ZT}$ (mA)	Max. Zener Impedance			Max. DC Zener Current		Max. Reverse Current		
			$Z_{ZT}$ @ $I_{ZT}$ ( $\Omega$ )	$Z_{ZK}$ @ $I_{ZK}$ ( $\Omega$ )	$I_{ZK}$ (mA)	(mA)	(mA)	( $\mu\text{A}$ )	Test Voltage $V_{DC}$	
								5%	10%	
MLL957A	6.8	18.5	4.5	700	1.0	47	81	150	5.2	4.9
MLL958A	7.5	16.5	5.5	700	0.5	42	65	75	5.7	5.4
MLL959A	8.2	15	6.5	700	0.5	38	50	50	6.2	5.8
MLL960A	9.1	14	7.5	700	0.5	36	45	25	6.8	6.0
MLL961A	10	12.5	8.5	700	0.25	32	41	10	7.6	7.2
MLL962A	11	11.5	9.5	700	0.25	28	37	5.0	8.4	8.6
MLL963A	12	10.5	11.5	700	0.25	26	35	5.0	9.1	9.6
MLL964A	13	9.5	13	700	0.25	24	32	5.0	9.9	9.4
MLL965A	15	8.5	16	700	0.25	21	27	5.0	11.4	10.9
MLL966A	16	7.5	17	700	0.25	19	23	5.0	12.2	11.9
MLL967A	18	7.0	21	750	0.25	17	21	5.0	13.7	13.0
MLL968A	20	6.2	25	750	0.25	15	20	5.0	14.8	14.4
MLL969A	22	5.6	29	750	0.25	14	18	5.0	16.1	15.8
MLL970A	24	5.2	33	750	0.25	12	17	5.0	18.2	17.3
MLL971A	27	4.6	41	750	0.25	11	15	5.0	20.6	19.4
MLL972A	30	4.2	48	1000	0.25	10	13	5.0	22.8	21.8
MLL973A	33	3.6	58	1000	0.25	9.2	12	5.0	25.1	23.8
MLL974A	36	3.4	70	1000	0.25	8.5	11	5.0	27.4	25.8
MLL975A	39	3.2	80	1000	0.25	7.8	10	5.0	29.7	28.1
MLL976A	43	3.0	93	1500	0.25	7.0	9.6	5.0	32.7	31.0
MLL977A	47	2.7	105	1500	0.25	6.4	8.8	5.0	35.8	33.8
MLL978A	51	2.5	125	1500	0.25	5.8	8.1	5.0	38.8	36.7
MLL979A	56	2.2	150	2000	0.25	5.4	7.4	5.0	42.6	40.3
MLL980A	62	2.0	185	2000	0.25	4.9	6.7	5.0	47.1	44.0
MLL981A	68	1.8	230	2000	0.25	4.5	6.1	5.0	51.2	49.0
MLL982A	75	1.7	270	2000	0.25	4.0	5.5	5.0	55.0	54.0
MLL983A	82	1.5	330	3000	0.25	3.7	5.0	5.0	62.2	58.0
MLL984A	91	1.4	400	3000	0.25	3.3	4.6	5.0	69.2	65.6
MLL985A	100	1.3	500	3000	0.25	3.0	4.3	5.0	76.0	72.0
MLL986A	110	1.1	750	4000	0.25	2.7	4.1	5.0	83.6	79.2