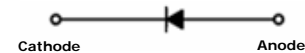
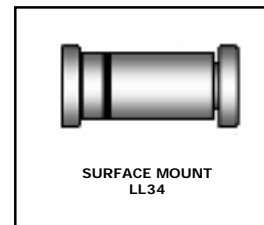


## 500mW LL34(Mini-MELF) Hermetically Sealed Glass Zener Voltage Regulators

### Specification Features:

- Low Reverse Leakage
- Low Zener Impedance
- High Stability and High Reliability
- LL34(Mini-MELF) Package
- Leadless Diode
- Hermetically Sealed Glass
- 1st Band indicates negative polarity or Cathode Band
- We declare that the material of product compliance with RoHS requirements.

ZMM2V0(B)-56(B)



### Absolute Maximum Ratings & Thermal Characteristics:

(TA=25°C)

Parameter	Symbols	Value	Unit
Power Dissipation	$P_D$	500.0	mW
Operating Junction Temperature	$T_J$	+175	°C
Storage Temperature Range	$T_S$	-55----+175	°C

## ZMM2V0(B)-56(B)

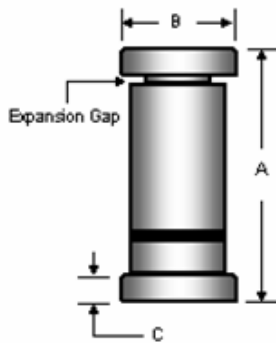
**Electrical Characteristics**  $T_A = 25^\circ\text{C}$  unless otherwise noted

Device Type	$V_Z$ @ $I_{ZT}$ (Volts) Nominal	$I_{ZT}$ (mA)	$Z_{ZT}$ @ $I_{ZT}$ ( $\Omega$ ) Max	$I_R$ @ $V_R$ ( $\mu\text{A}$ ) Max	$V_R$ (Volts)
ZMM2V0(B)	2.0	5	100	120	0.5
ZMM2V2(B)	2.2	5	100	120	0.7
ZMM2V4(B)	2.4	5	100	120	1
ZMM2V7(B)	2.7	5	110	100	1
ZMM3V0(B)	3.0	5	120	50	1
ZMM3V3(B)	3.3	5	120	20	1
ZMM3V6(B)	3.6	5	100	10	1
ZMM3V9(B)	3.9	5	100	5	1
ZMM4V3(B)	4.3	5	100	5	1
ZMM4V7(B)	4.7	5	80	5	1
ZMM5V1(B)	5.1	5	80	5	1.5
ZMM5V6(B)	5.6	5	60	5	2.5
ZMM6V2(B)	6.2	5	60	5	3
ZMM6V8(B)	6.8	5	20	2	3.5
ZMM7V5(B)	7.5	5	20	0.5	4
ZMM8V2(B)	8.2	5	20	0.5	5
ZMM9V1(B)	9.1	5	25	0.5	6
ZMM10(B)	10	5	30	0.2	7
ZMM11(B)	11	5	30	0.2	8
ZMM12(B)	12	5	30	0.2	9
ZMM13(B)	13	5	35	0.2	10
ZMM15(B)	15	5	40	0.2	11
ZMM16(B)	16	5	40	0.2	12
ZMM18(B)	18	5	45	0.2	13
ZMM20(B)	20	5	45	0.2	15
ZMM22(B)	22	5	30	0.2	17
ZMM24(B)	24	5	35	0.2	19
ZMM27(B)	27	5	45	0.2	21
ZMM30(B)	30	5	55	0.2	23
ZMM33(B)	33	5	65	0.2	25
ZMM36(B)	36	5	75	0.2	27
ZMM39(B)	39	5	85	0.2	30
ZMM43(B)	43	5	90	0.2	33
ZMM47(B)	47	5	90	0.2	36
ZMM51(B)	51	5	110	0.2	39
ZMM56(B)	56	5	110	0.2	43

$V_F$  Forward Voltage = 1.2 V Maximum @  $I_F = 200$  mA for all types

**Notes:**

- The type numbers listed have zener voltage min/max limits as shown and have a standard tolerance on the nominal zener voltage of 5%.
- For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
- 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  $I_{ZK}$ .
- suffix B $\pm$  2%



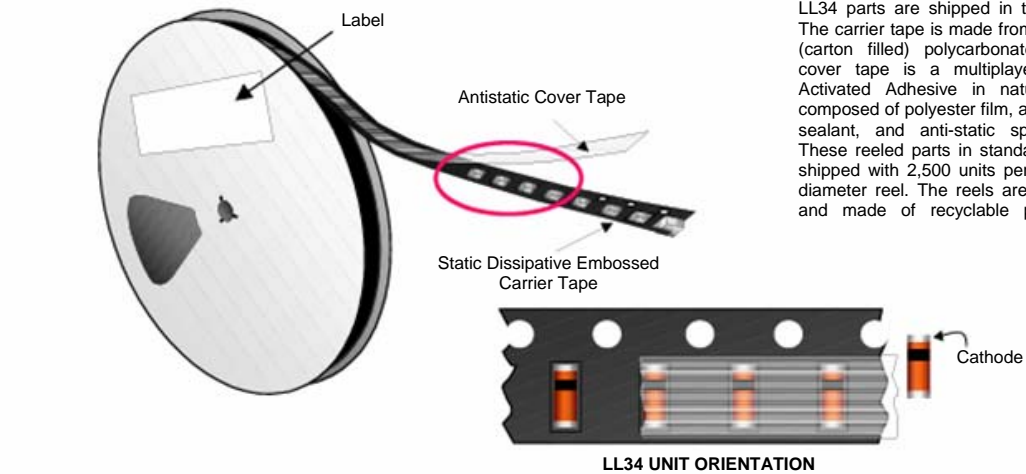
DIM	LL-34			
	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	3.302	3.505	0.130	0.138
<b>B</b>	1.39	1.54	0.054	0.060
<b>C</b>	0.350	0.500	0.014	0.020

**Notes:**

1. LL34 polarity denoted by a band.
2. 'Expansion Gap' has no relation to the location of polarity.

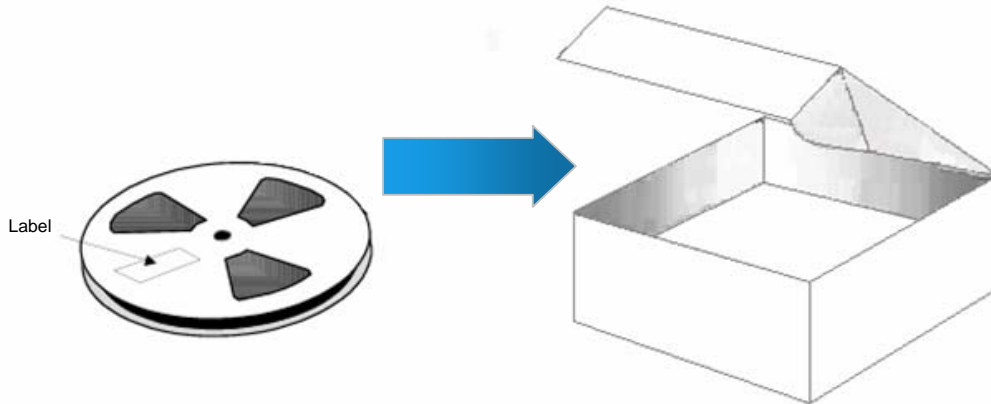
## LL-34 (Mini-MELF) Tape & Reel Packaging Information

### LL-34 Packaging Outline

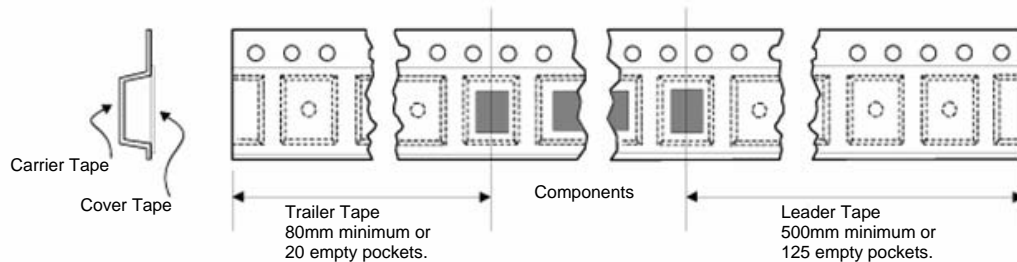


### Packaging Description:

LL34 parts are shipped in tape and reel. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multiplayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 2,500 units per 7" or 178cm diameter reel. The reels are blue in color and made of recyclable plastic.

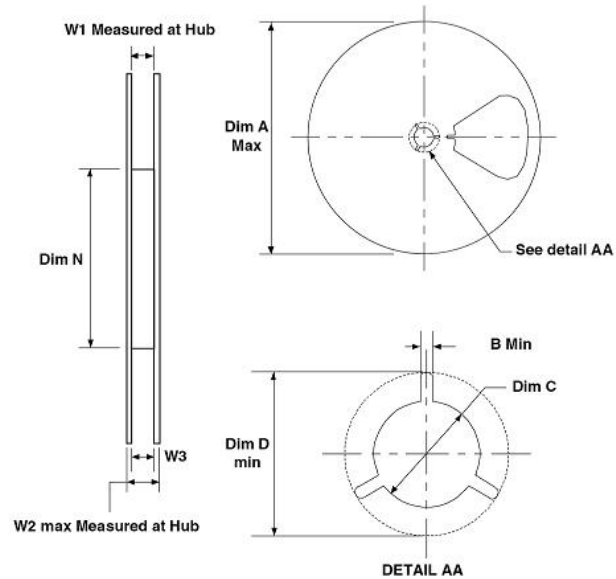


### LL-34 Leader and Trailer



## LL-34 (Mini-MELF) Tape & Reel Packaging Information

### LL-34 Reel Outline



Dimensions are in millimeters

Tape Size	QTY Option	Dim A	Dim B	Dim C	Dim D	Dim N	W1	W2	W3
8mm	2,500	178	1.5	13	20.2	55	8.4	14.4	7.9 – 10.9