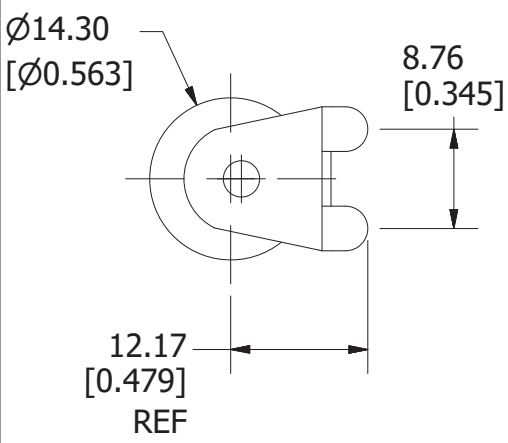
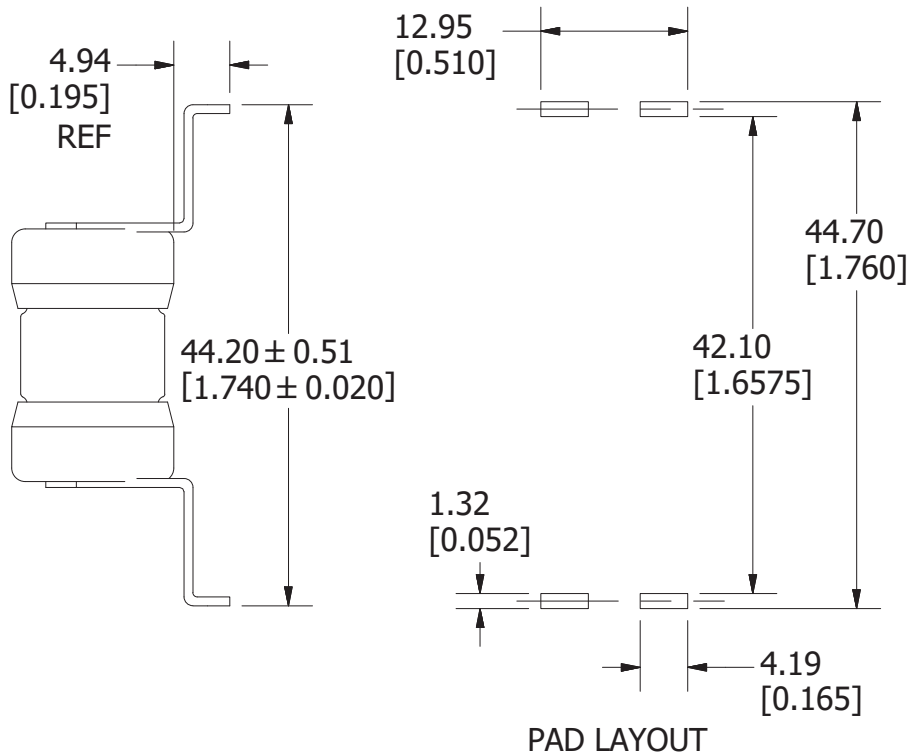


REVISION		
REV	DATE	DESCRIPTION
A	10/8/20	522906GCP - RELEASE MRY

<S>	CRITICAL CHARACTERISTIC FOR PART SAFETY/COMPLIANCE		
●	DENOTES CRITICAL CHARACTERISTICS.		
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE		
ST	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE. PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS.		
CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.		
MATL SPEC		FINISH	
DRW myork	DATE 9/30/2020	SCALE NTS	FINISH GOOD WT GRAMS/PIECE
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, DIMENSIONS IN BRACKETS [ ] ARE INCHES DIMENSIONING AND DO NOT INCLUDE PLATING. TOLERANCING TO BE INTERPRETED IN ACCORDANCE WITH ANSI Y14.5M-1994			
3RD ANGLE PROJECTION			
<b>TITLE</b> TLS CARTRIDGE STYLE OUTLINE			
<b>Littelfuse</b> CHICAGO, ILLINOIS 60631		REVISION A	DRWG NO. OL-0TLS000

**A**



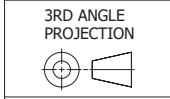
REVISION		
REV	DATE	DESCRIPTION
A	10/8/20	522906GCP - RELEASE MRY

<S>	CRITICAL CHARACTERISTIC FOR PART SAFETY/COMPLIANCE
●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
⬡	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE. PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS.
CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.

**A**

MATL SPEC		FINISH	
DRW myork	DATE 9/30/2020	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

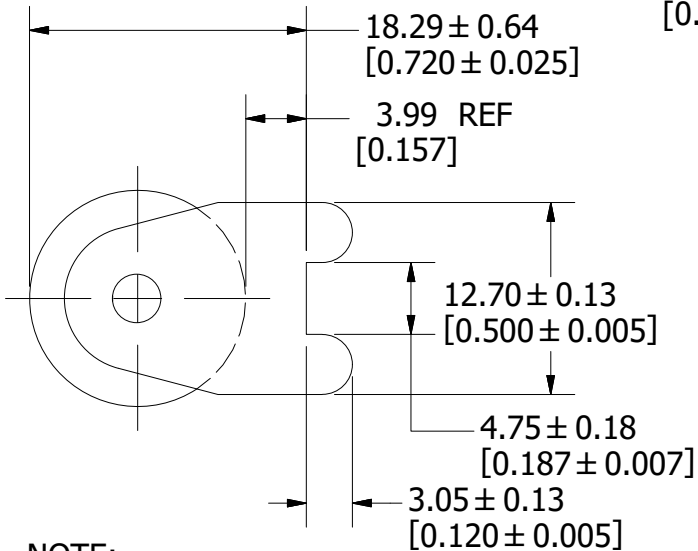
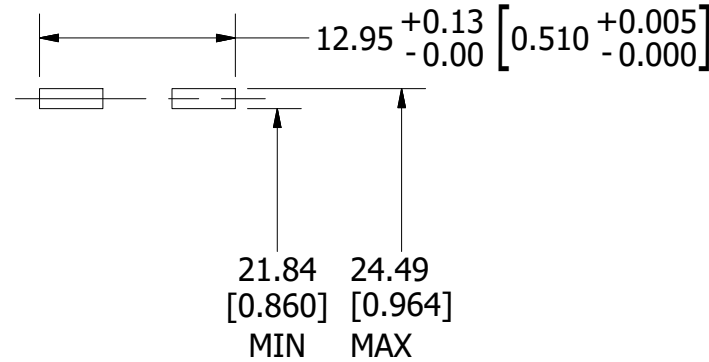
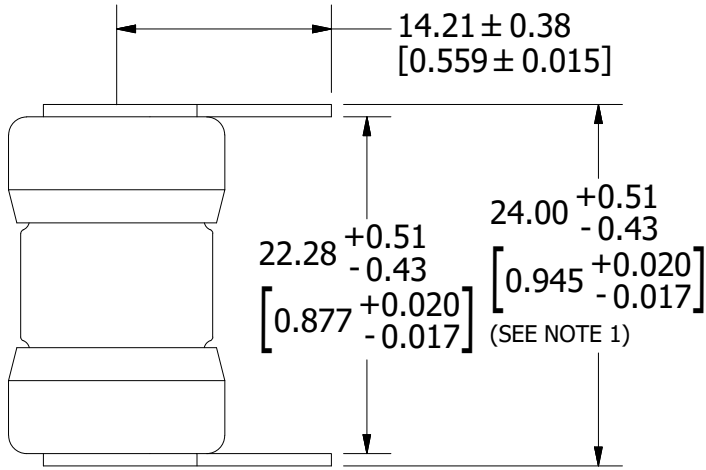
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, DIMENSIONS IN BRACKETS [ ] ARE INCHES DIMENSIONING AND DO NOT INCLUDE PLATING. TOLERANCING TO BE INTERPRETED IN ACCORDANCE WITH ANSI Y14.5M-1994



<b>TITLE</b>	TLS-L SERIES OUTLINE
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 CHICAGO, ILLINOIS 60631	REVISION	DRWG NO.	SHEET 1 OF 1
	A	OL-0TLS000L	

REVISION		
REV	DATE	DESCRIPTION
H	10/20/20	522885ECP/D - REDRAW IN INVENTOR, ADD METRIC DIMENSIONS MRY



1.32  
[0.052]  
REF

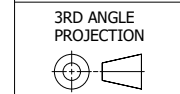
**PAD LAYOUT**

<S>	CRITICAL CHARACTERISTIC FOR PART SAFETY/COMPLIANCE
●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
⬡	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE. PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS.
CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.

**A**

MATL SPEC		FINISH	
DRW myork	DATE 9/22/2020	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, DIMENSIONS IN BRACKETS [ ] ARE INCHES DIMENSIONING AND DO NOT INCLUDE PLATING. TOLERANCING TO BE INTERPRETED IN ACCORDANCE WITH ANSI Y14.5M-1994



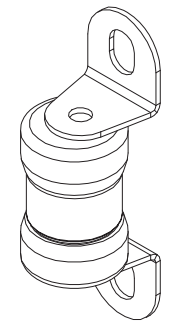
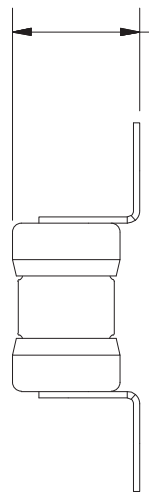
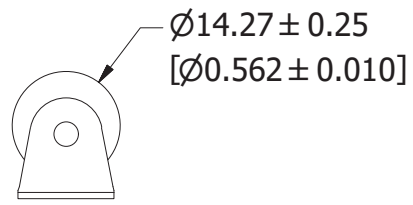
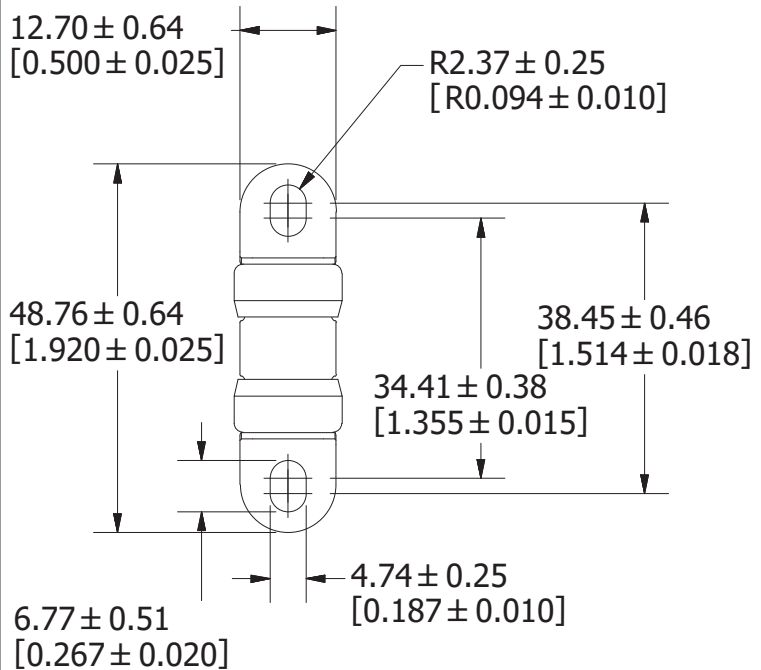
**TITLE** TLS-LS OUTLINE & PAD LAYOUT

 CHICAGO, ILLINOIS 60631	REVISION	DRWG NO.	SHEET 1 OF 1
	H	OL-0TLS000LS	

**NOTE:**  
1. MEASUREMENT TAKEN AT END OF TERMINALS.

**LEAD-FREE SOLDERING PROFILE:**  
PRE-HEAT: ABOVE 130°C FOR 75 SECONDS MAX  
REFLOW: 278°C FOR 8 SECONDS MAX  
TIME: 250 SECONDS MAX.  
MAX. TEMP: 280°C

REVISION		
REV	DATE	DESCRIPTION
A	12/20/18	520065GCP - RELEASE MRY
B	11/14/19	521621ECP/D - ADD TOLERANCES MRY

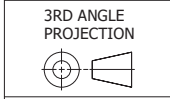


<S>	CRITICAL CHARACTERISTIC FOR PART SAFETY/COMPLIANCE
●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
ST	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE. PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS.
CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.

**A**

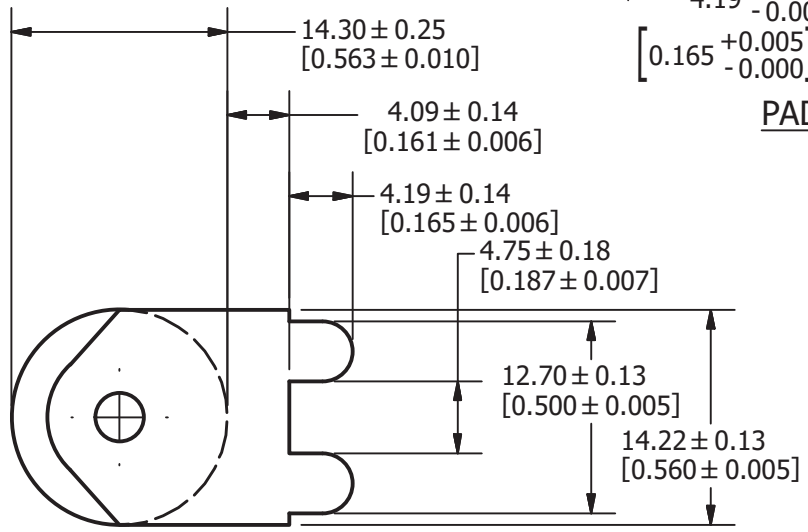
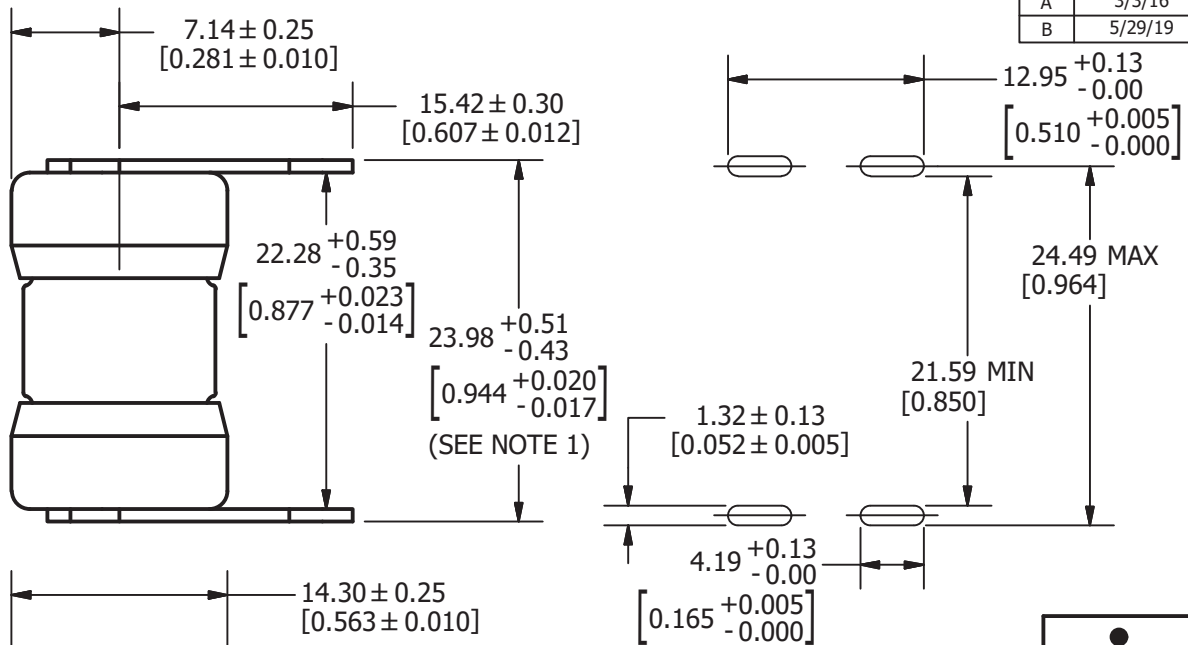
MATL SPEC		FINISH	
DRW myork	DATE 10/16/2018	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, DIMENSIONS IN BRACKETS [ ] ARE INCHES DIMENSIONING AND DO NOT INCLUDE PLATING. TOLERANCING TO BE INTERPRETED IN ACCORDANCE WITH ANSI Y14.5M-1994



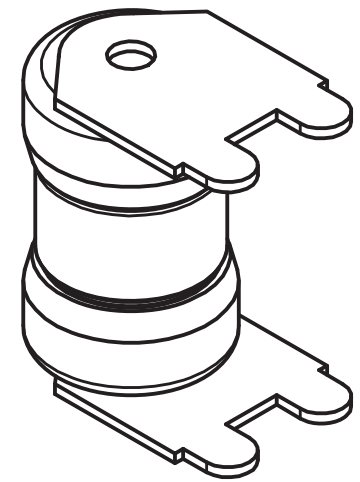
<b>TITLE</b>	TLS-LR OUTLINE
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 CHICAGO, ILLINOIS 60631	REVISION	DRWG NO.	SHEET 1 OF 1
	B	OL-0TLS000LR	



**PAD LAYOUT**

REVISION		
REV	DATE	DESCRIPTION
A	3/3/16	515620GCP - RELEASE PER SALES RELEASE EM2816 MRY
B	5/29/19	520867ECP/D - UPDATE DIMENSIONS MRY



●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
⊠	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE. PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS.
CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.

**A**

MATL SPEC		FINISH	
DRW MYORK	DATE 7/22/2015	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, DIMENSIONS IN BRACKETS [ ] ARE INCHES DIMENSIONING AND DO NOT INCLUDE PLATING. TOLERANCING TO BE INTERPRETED IN ACCORDANCE WITH ANSI Y14.5M-1994

3RD ANGLE PROJECTION	
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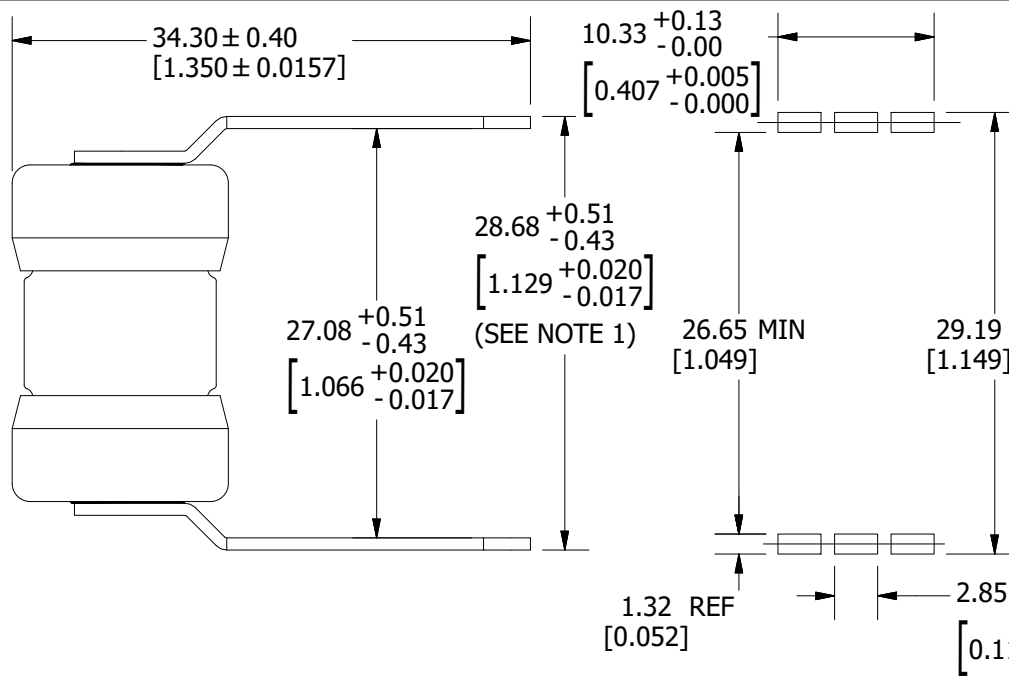
<b>TITLE</b>	TLS-LSE OUTLINE
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**NOTE:**  
1. MEASUREMENT TAKEN AT END OF TERMINALS.

**LEAD-FREE SOLDERING PROFILE:**

PRE-HEAT: ABOVE 130°C FOR 75 SECONDS MAX.  
REFLOW: 278°C FOR 8 SECONDS MAX.  
TIME: 250 SECONDS MAX.  
MAX. TEMP: 280°C

<b>Littelfuse</b> CHICAGO, ILLINOIS 60631	REVISION <b>B</b>	DRWG NO. <b>OL-0TLS000LSE</b>	SHEET 1 OF 1
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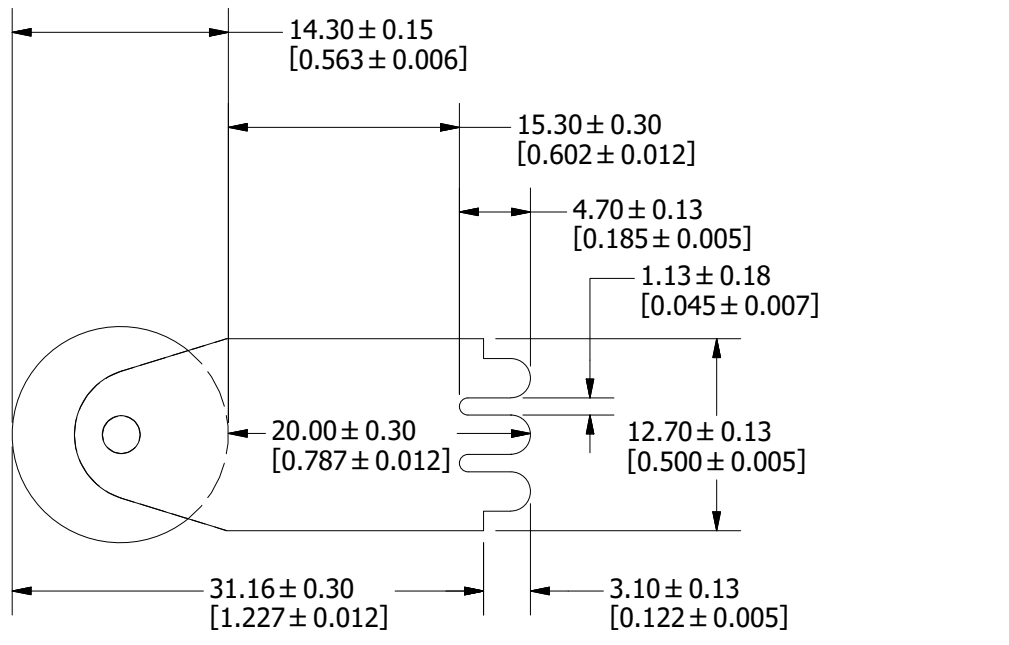
REVISION		
REV	DATE	DESCRIPTION
A	4/17/18	519174GCP - RELEASE MRY
B	11/19/20	523066ECP/B - UPDATE DIMENSIONS MRY

**NOTE:**  
1. MEASUREMENT TAKEN AT END OF TERMINALS.

**LEAD FREE SOLDERING PROFILE:**

PRE-HEAT: ABOVE 130°C FOR 75 SECONDS MAX  
 REFLOW: 278°C FOR 8 SECONDS MAX  
 TIME: 250 SECONDS MAX.  
 MAX TEMP: 280°C

**PAD LAYOUT**

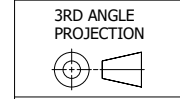


●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
⊠	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE. PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS.
CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.

**A**

MATL SPEC		FINISH	
DRW myork	DATE 4/4/2018	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

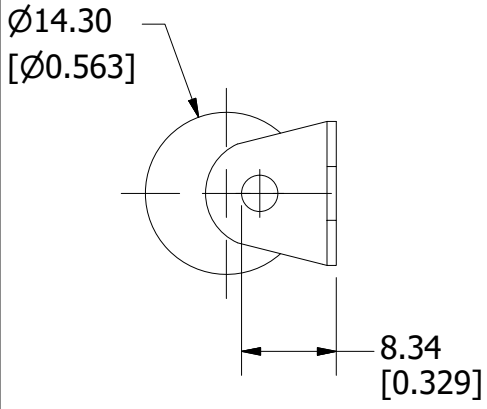
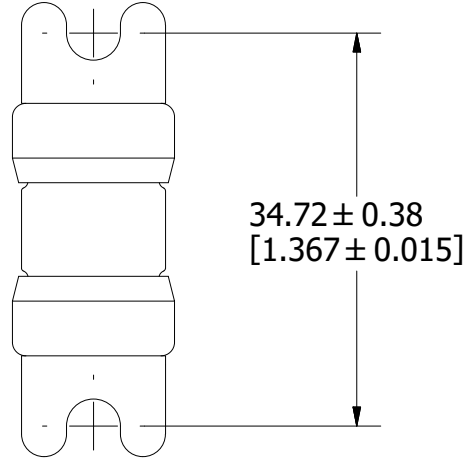
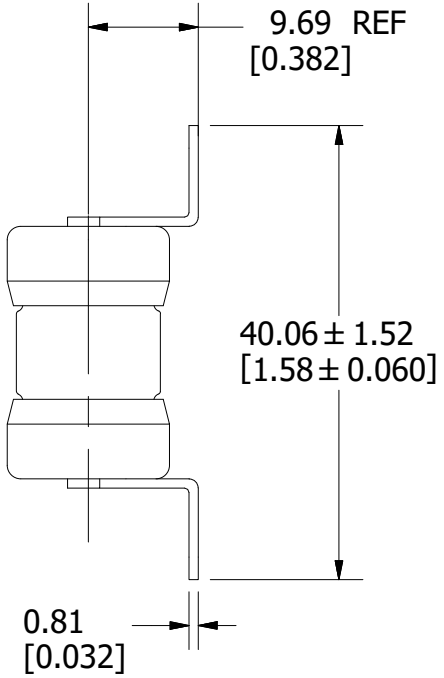
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<b>TITLE</b>	TLS-SLSA OUTLINE & PAD LAYOUT
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 CHICAGO, ILLINOIS 60631	REVISION	DRWG NO.	SHEET 1 OF 1
	B	OL-0TLS000SLSA	

REVISION		
REV	DATE	DESCRIPTION
A	12/28/20	523247GCP - RELEASE MRY

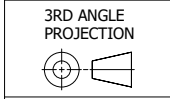


<S>	CRITICAL CHARACTERISTIC FOR PART SAFETY/COMPLIANCE
●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
⬡	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE. PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS.
CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.

**A**

MATL SPEC		FINISH	
DRW myork	DATE 12/28/2020	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

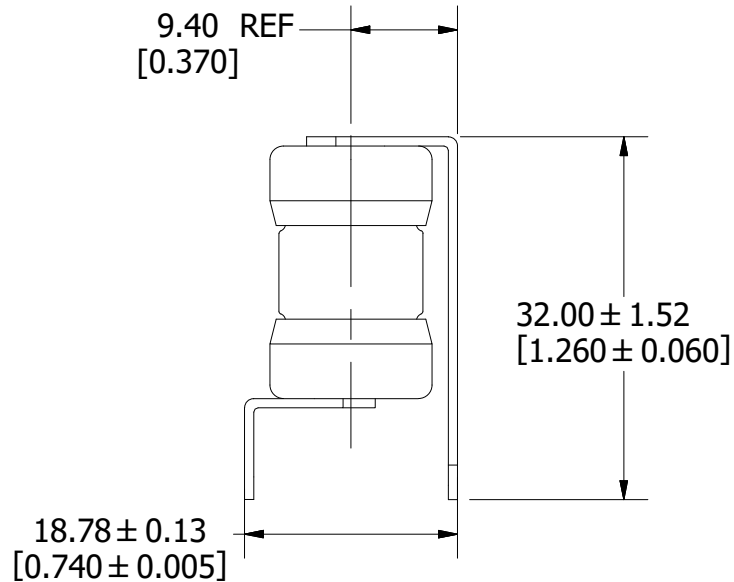
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<b>TITLE</b>	TLS-LB SERIES OUTLINE
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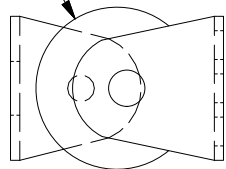
**NOTES:**  
 RECOMMENDED HARDWARE: #8 SLOTTED HEX WASHER HEAD MACHINE SCREW  
 TORQUE: 10 IN-LB

 CHICAGO, ILLINOIS 60631	REVISION	DRWG NO.	SHEET 1 OF 1
	A	OL-0TLS000LB	OUTLINE

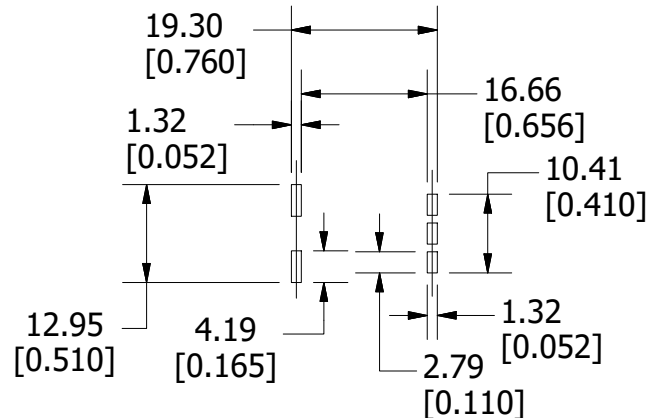


18.78 ± 0.13  
[0.740 ± 0.005]

Ø14.30  
[Ø0.563]



REVISION		
REV	DATE	DESCRIPTION
A	12/29/20	523247GCP - RELEASE MRY



PAD LAYOUT

<S>	CRITICAL CHARACTERISTIC FOR PART SAFETY/COMPLIANCE
●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
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CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.

**A**

MATL SPEC		FINISH	
DRW myork	DATE 12/29/2020	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, DIMENSIONS IN BRACKETS [ ] ARE INCHES DIMENSIONING AND DO NOT INCLUDE PLATING. TOLERANCING TO BE INTERPRETED IN ACCORDANCE WITH ANSI Y14.5M-1994

3RD ANGLE  
PROJECTION



**TITLE**

TLS-V SERIES OUTLINE



REVISION

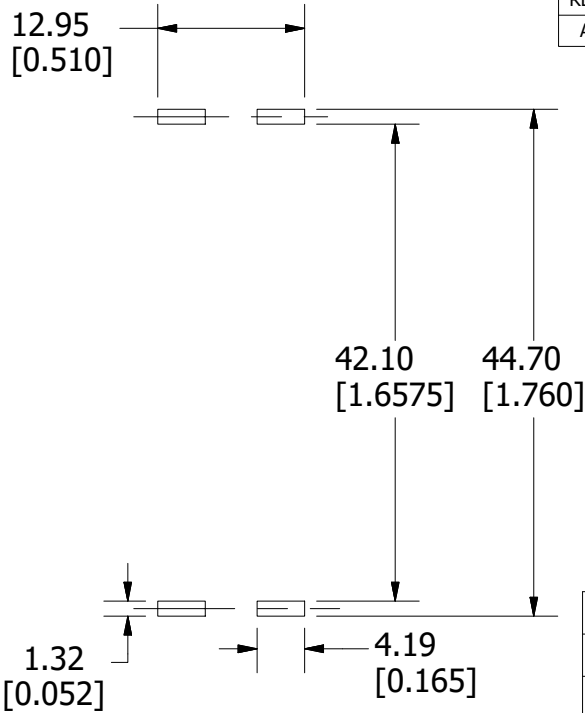
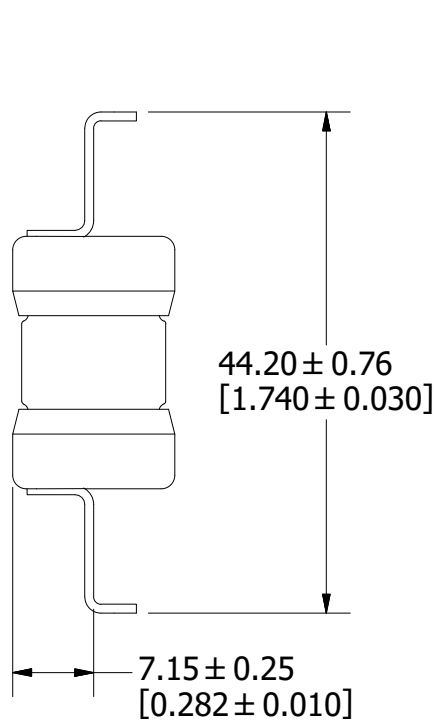
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DRWG NO.

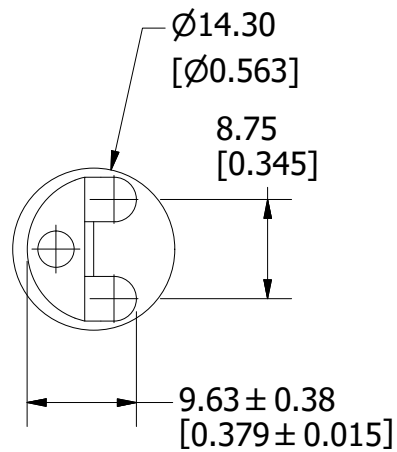
OL-0TLS000V

SHEET 1 OF 1  
OUTLINE





PAD LAYOUT



REVISION		
REV	DATE	DESCRIPTION
A	12/29/20	523247GCP - RELEASE MRY

<S>	CRITICAL CHARACTERISTIC FOR PART SAFETY/COMPLIANCE
●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
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**A**

MATL SPEC		FINISH	
DRW myork	DATE 12/29/2020	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

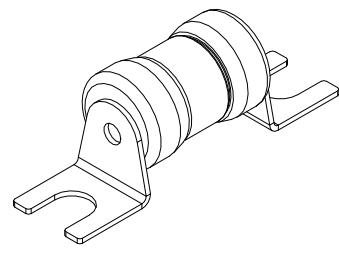
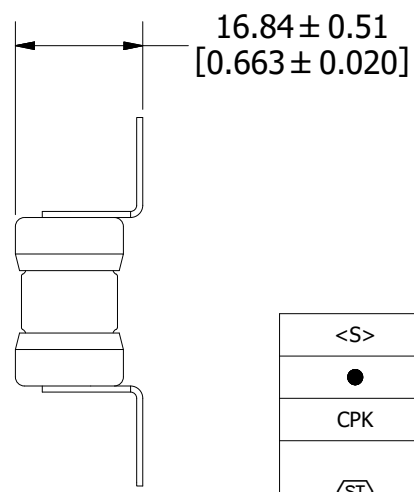
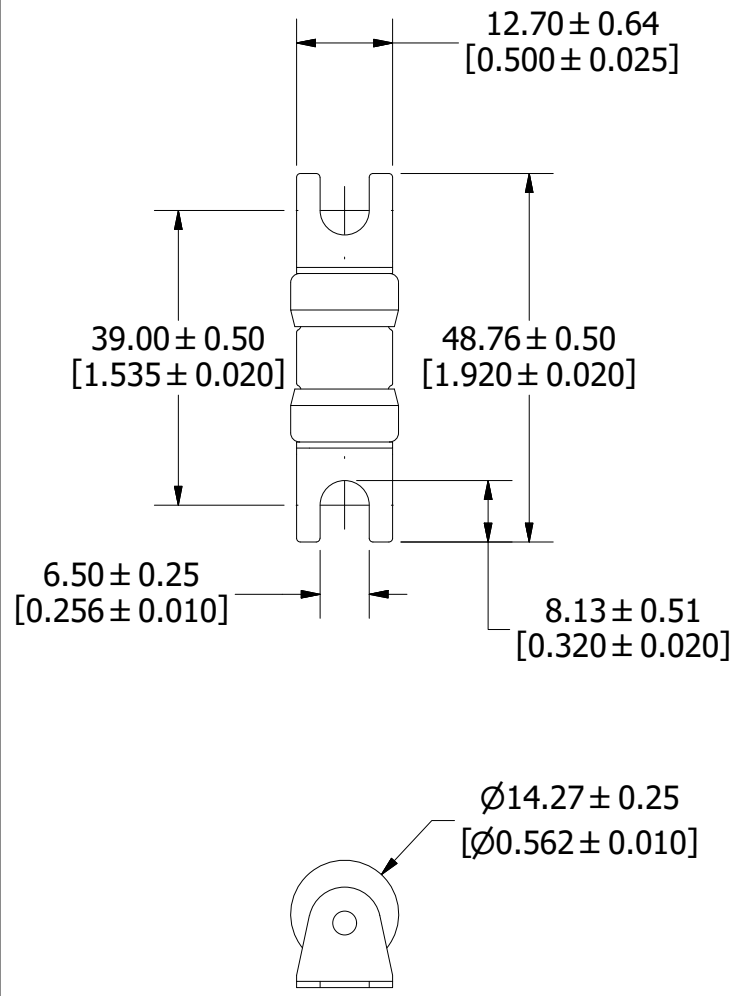
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3RD ANGLE PROJECTION	
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<b>TITLE</b>	TLS-MB SERIES OUTLINE
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<b>Littelfuse</b> CHICAGO, ILLINOIS 60631	<b>REVISION</b> A	<b>DRWG NO.</b> OL-0TLS000MB	SHEET 1 OF 1 OUTLINE
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REVISION		
REV	DATE	DESCRIPTION
A	3/23/21	523515GCP - RELEASE MRY



<S>	CRITICAL CHARACTERISTIC FOR PART SAFETY/COMPLIANCE
●	DENOTES CRITICAL CHARACTERISTICS.
CPK	DENOTES CPK DIMENSIONS, -MINIMUM CPK VALUE
ST	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE. PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS.
CP	DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE.

**A**

MATL SPEC		FINISH	
DRW MYORK	DATE 3/9/2021	SCALE NTS	FINISH GOOD WT GRAMS/PIECE

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS, DIMENSIONS IN BRACKETS [ ] ARE INCHES DIMENSIONING AND DO NOT INCLUDE PLATING. TOLERANCING TO BE INTERPRETED IN ACCORDANCE WITH ANSI Y14.5M-1994

3RD ANGLE PROJECTION	
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<b>TITLE</b>	TLS-LBE OUTLINE
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 CHICAGO, ILLINOIS 60631	REVISION	DRWG NO.	SHEET 1 OF 1
	A	OL-0TLS000LBE	