

BOURNS

SPECIFICATION FOR APPROVAL

Title	EMI Filter Inductor		
Reference Design	TIDA-010938		
Bourns Part Number	145454	Rev	X9
Customer			
Customer Part Number		Rev	

Designed		
Drawn	MD	20/Jul/2024
Checked		
Approved		

Customer Approval	
Name	
Position	
Date	

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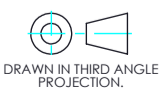
Preliminary

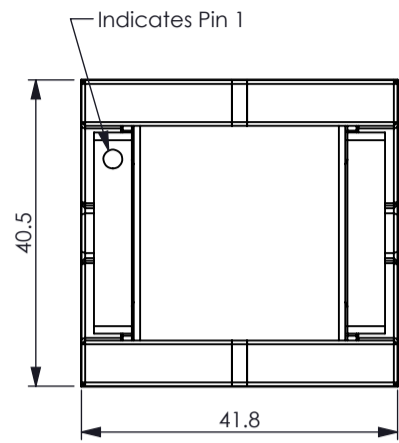
B180986 V0 D6761

CHANGE HISTORY

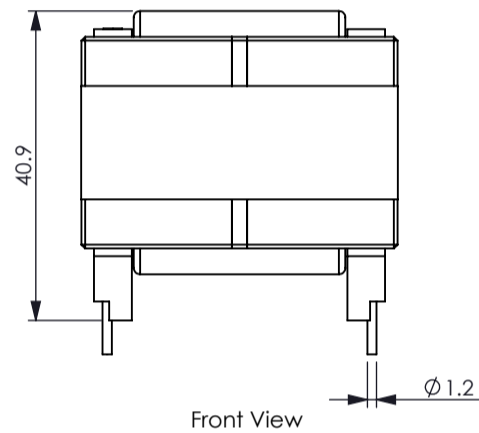
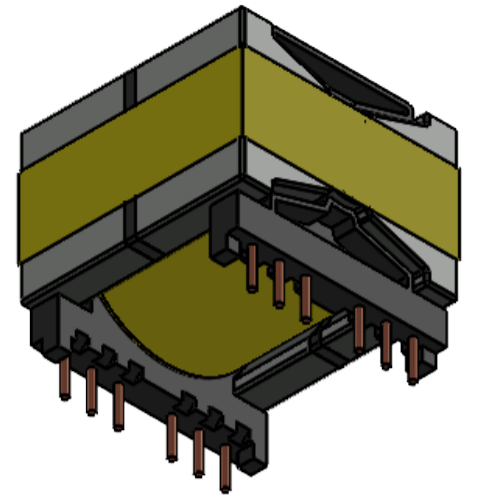
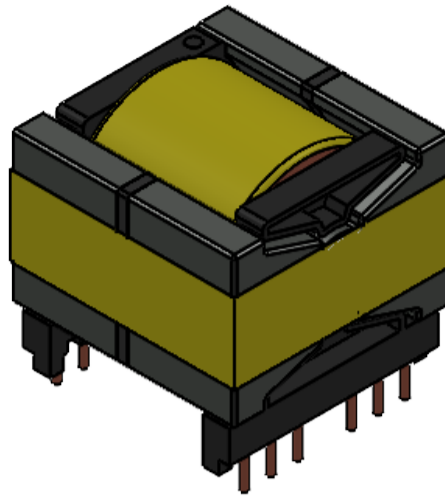
Revision	Date	Description of Change	Approved	Date
X1	12/Oct/2023	Updating of General Information and Electrical Specification.		
X2	16/Oct/2023	Updating of Winding Diagram.		
X3	18/Oct/2023	Changing of Wire Spec.		
X4	19/Oct/2023	Changing of Wire Spec.		
X5	02/Nov/2023	Changing of Wire Spec.		
X6	14/Dec/2023	Addition of Bourns Part Number		
X7	15/Jan/2024	Update Elec Spec		
X8	13/Feb/2024	Update DCR Value		
X9	02/Aug/2024	Wire Change and Bobbin Modification		

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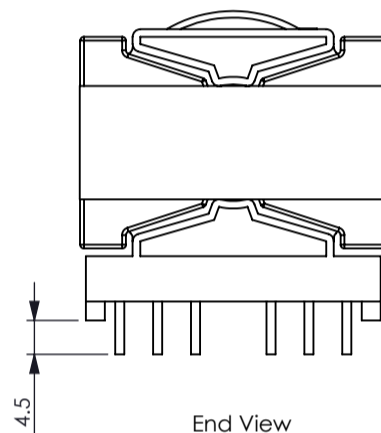
BOURNS	Title <p style="text-align: center;">EMI Filter Inductor</p>		Tolerance (Unless Otherwise Specified) 0 < L < 5 : ±0.1 Angle 5 < L < 16 : ±0.3 ± 1° 16 < L < 50 : ±0.5	
	Project Number <p style="text-align: center;">MAG-3001958</p>			
B180986 V0 D6761	Bourns P/N <p style="text-align: center;">145454</p>	Rev <p style="text-align: center;">X9</p>	Units: mm Scale: NTS	 <small>DRAWN IN THIRD ANGLE PROJECTION.</small>
Customer	Customer P/N	Rev	RoHS and REACH Compliant	



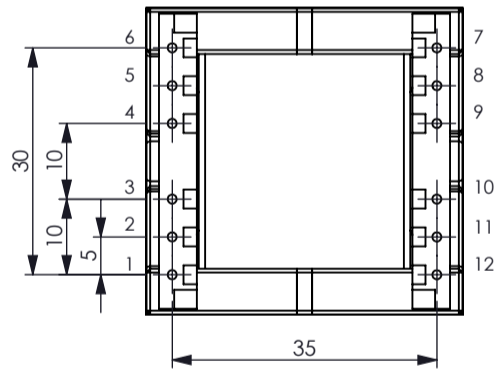
Top View



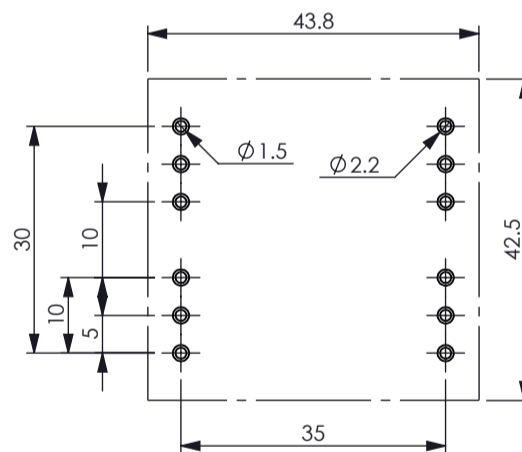
Front View



End View



Bottom View

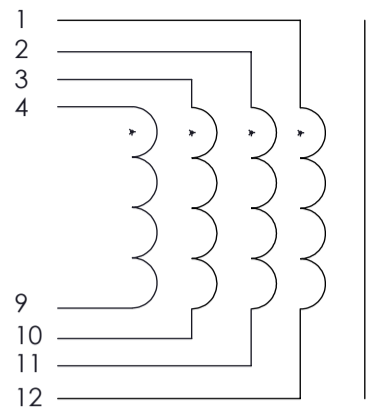


PCB Layout
(Top View)

Preliminary

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	Title		Tolerance (Unless Otherwise Specified)	
	EMI Filter Inductor		0 < L < 5 : ±0.1	Angle
Project Number		5 < L < 16 : ±0.3		± 1°
MAG-3001958		16 < L < 50 : ±0.5		
B180986 V0 D6761	Bourns P/N	Rev	Units: mm	 DRAWN IN THIRD ANGLE PROJECTION.
	145454	X9	Scale: NTS	
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Schematic
Connect Pins 1, 2, 3 & 4 on the PCB
Connect Pins 9, 10, 11, & 12 on the PCB

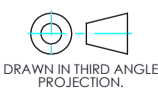
ELECTRICAL SPECIFICATION

No.	Item	Terminal	Value	Tolerance	Condition	Remarks
1	Inductance (0 ADC)	1,2,3,4 to 9, 10, 11, 12	22 μ H	$\pm 10\%$	1V at 100kHz	
3	Saturation Current	1,2,3,4 to 9, 10, 11, 12	35 A		20% Roll Off From Initial	
4	DC Resistance	1,2,3,4 to 9, 10, 11, 12	5 m Ω	$\pm 10\%$		

GENERAL INFORMATION

- Operating Temperature: -40°C to $+125^{\circ}\text{C}$ Including Temperature Rise
- Storage Temperature: -40°C to $+85^{\circ}\text{C}$

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BOURNS	Title EMI Filter Inductor		Tolerance (Unless Otherwise Specified) 0 < L < 5 : ± 0.1 Angle 5 < L < 16 : ± 0.3 $\pm 1^{\circ}$ 16 < L < 50 : ± 0.5	
	Project Number MAG-3001958			
B180986 V0 D6761	Bourns P/N 145454	Rev X9	Units: mm Scale: NTS	 DRAWN IN THIRD ANGLE PROJECTION.
Customer	Customer P/N	Rev	RoHS and REACH Compliant	Page: 4 of 9

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