

BOURNS®

Features

- Formerly J. W. Miller® model
- Six windings - multiple configurations
- Compact size
- Tape and reel packaging
- RoHS compliant*

Applications

- Inductors: Buck-boost, coupled, filtering, common mode
- Transformers: Flyback, push-pull, inverter, gate drive, isolation

PM600/PM610/PM620 Series - SMD Inductor/Transformer

Electrical Specifications

Bourns Part No.	Inductance 100 KHz		DCR (Ω) Max.	Isat (A)	Irms (A)	<1> ET (VmS) Based on 40 °C Rise (260 KHz)	<1> ET (VmS) Based on Core Saturation
	(μH)	Tol. (%)					
PM600-01-RC	201.6	±30	0.324	0.02	0.46	16.8	103.2
PM600-02-RC	89.6	±30	0.137	0.03	0.71	11.2	68.8
PM600-03-RC	27.4	±10	0.324	0.31	0.46	16.8	103.2
PM600-04-RC	12.2	±10	0.137	0.47	0.71	11.2	68.8
PM600-05-RC	14.7	±10	0.324	0.58	0.46	16.8	103.2
PM600-06-RC	6.5	±10	0.137	0.87	0.71	11.2	68.8
PM600-07-RC	10.9	±10	0.324	0.88	0.46	16.8	103.2
PM600-08-RC	4.9	±10	0.137	1.32	0.71	11.2	68.8
PM600-09-RC	8.5	±10	0.324	1.23	0.46	16.8	103.2
PM600-10-RC	3.8	±10	0.137	1.85	0.71	11.2	68.8
PM610-01-RC	160.0	±30	0.202	0.04	0.68	21.0	130
PM610-02-RC	78.4	±30	0.094	0.06	1.00	14.7	91
PM610-03-RC	21.6	±10	0.202	0.67	0.68	21.0	130
PM610-04-RC	10.6	±10	0.094	0.96	1.00	14.7	91
PM610-05-RC	11.6	±10	0.202	1.30	0.68	21.0	130
PM610-06-RC	5.7	±10	0.094	1.86	1.00	14.7	91
PM610-07-RC	8.3	±10	0.202	2.00	0.68	21.0	130
PM610-08-RC	4.1	±10	0.094	2.86	1.00	14.7	91
PM610-09-RC	6.6	±10	0.202	2.30	0.68	21.0	130
PM610-10-RC	3.2	±10	0.094	3.29	1.00	14.7	91
PM620-01-RC	160.6	±30	0.094	0.03	1.28	20.8	130
PM620-02-RC	77.0	±30	0.065	0.04	1.54	14.4	90
PM620-03-RC	131.8	±20	0.094	0.08	1.28	20.8	130
PM620-04-RC	63.2	±20	0.065	0.12	1.54	14.4	90
PM620-05-RC	23.3	±10	0.094	0.36	1.28	20.8	130
PM620-06-RC	11.2	±10	0.065	0.52	1.54	14.4	90
PM620-07-RC	14.2	±10	0.094	0.76	1.28	20.8	130
PM620-08-RC	6.8	±10	0.065	1.10	1.54	14.4	90
PM620-09-RC	9.3	±10	0.094	1.11	1.28	20.8	130
PM620-10-RC	4.5	±10	0.065	1.60	1.54	14.4	90
PM620-11-RC	7.9	±10	0.094	1.40	1.28	20.8	130
PM620-12-RC	3.8	±10	0.065	2.02	1.54	14.4	90

<1> Single or multi-windings in parallel. ET of multiple winding in series is number of windings times value of ET.

General Specifications

Rated Current..... Ind. drop of 30 % typ.
at Isat
 Temperature Rise ... 40 °C typical at Irms
 Operating Temperature
 -40 °C to +105 °C
 Storage Temperature
 -40 °C to +105 °C
 Soldering 245 °C, 5 seconds max.
 Dielectric Strength 500 Vrms
 between windings

Materials

Core..... Ferrite
 Wire Polyurethane-coated copper
 Terminal Coating..... Sn-Ag-Cu alloy
 Packaging
 PM600..... 600 pcs. per 13-inch reel
 PM610..... 300 pcs. per 13-inch reel
 PM620..... 200 pcs. per 13-inch reel

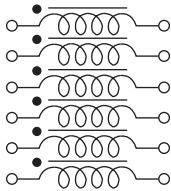


WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Typical Configurations

Inductor:



Basic Diagram
Inductance: L
Current: I

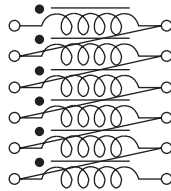


Figure 1
Inductance: 36 x L
Current: I

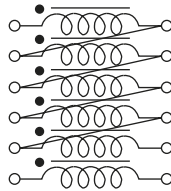


Figure 2
Inductance: 25 x L
Current: I

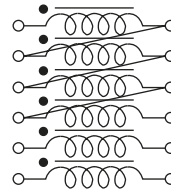


Figure 3
Inductance: 16 x L
Current: I

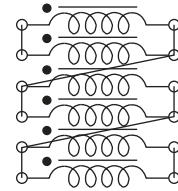


Figure 4
Inductance: 9 x L
Current: 2 x I

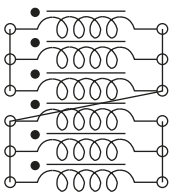


Figure 5
Inductance: 4 x L
Current: 3 x I

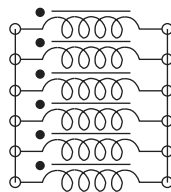
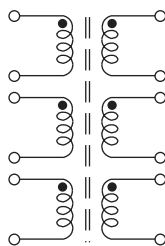


Figure 6
Inductance: L
Current: 6 x I

Transformer:



Basic Diagram
Turns Ratio:
1:1:1:1:1:1

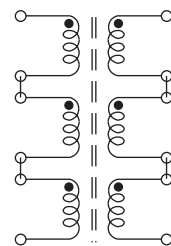


Figure 1
Turns Ratio:
1:1

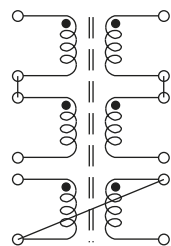


Figure 2
Turns Ratio:
1:1:1

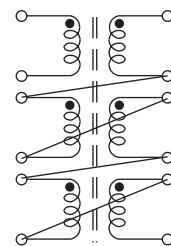


Figure 3
Turns Ratio:
1:5 or 5:1

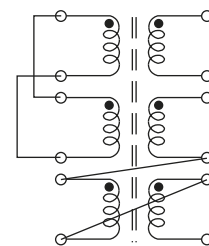


Figure 4
Turns Ratio:
1:4 or 4:1

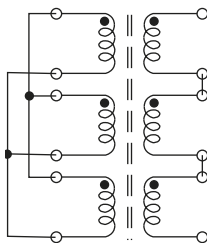


Figure 5
Turns Ratio:
1:3 or 3:1

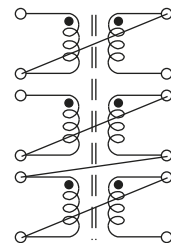


Figure 6
Turns Ratio:
1:2 or 2:1

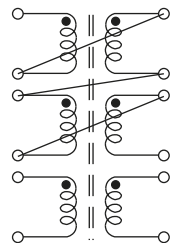


Figure 7
Turns Ratio:
4:1:1

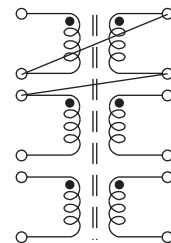


Figure 8
Turns Ratio:
3:1:1:1

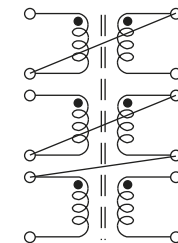


Figure 9
Turns Ratio:
2:3 or 3:2

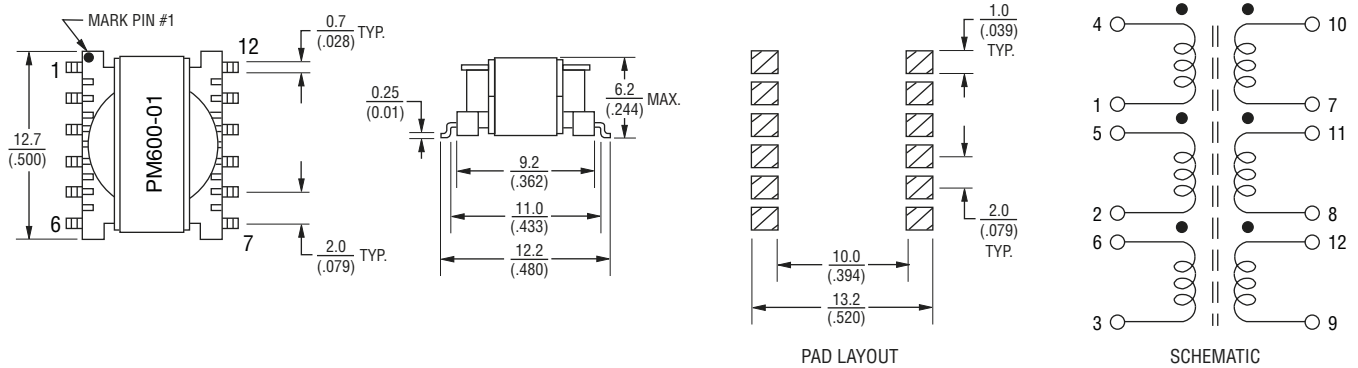
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PM600/PM610/PM620 Series - SMD Inductor/Transformer

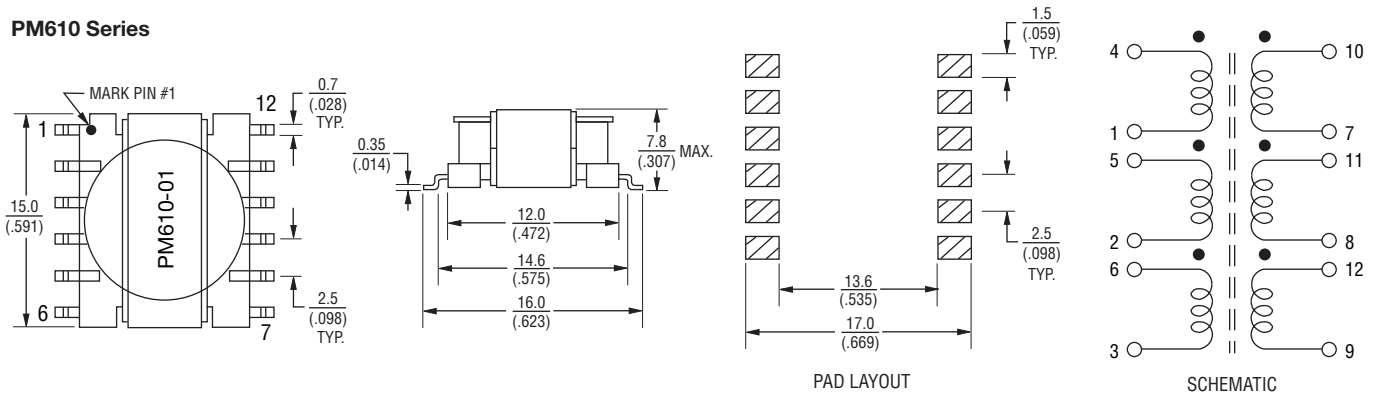
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Product Dimensions

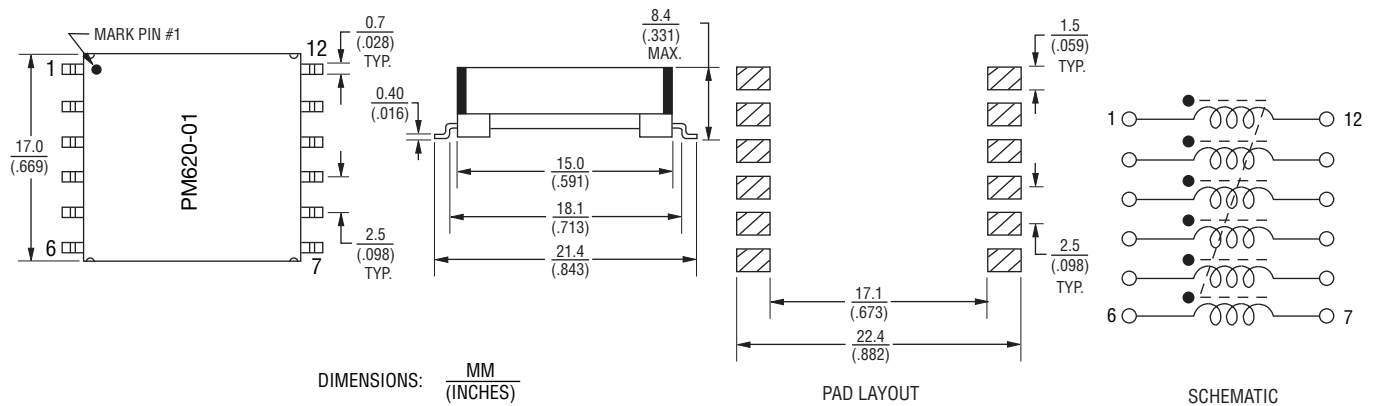
PM600 Series



PM610 Series



PM620 Series



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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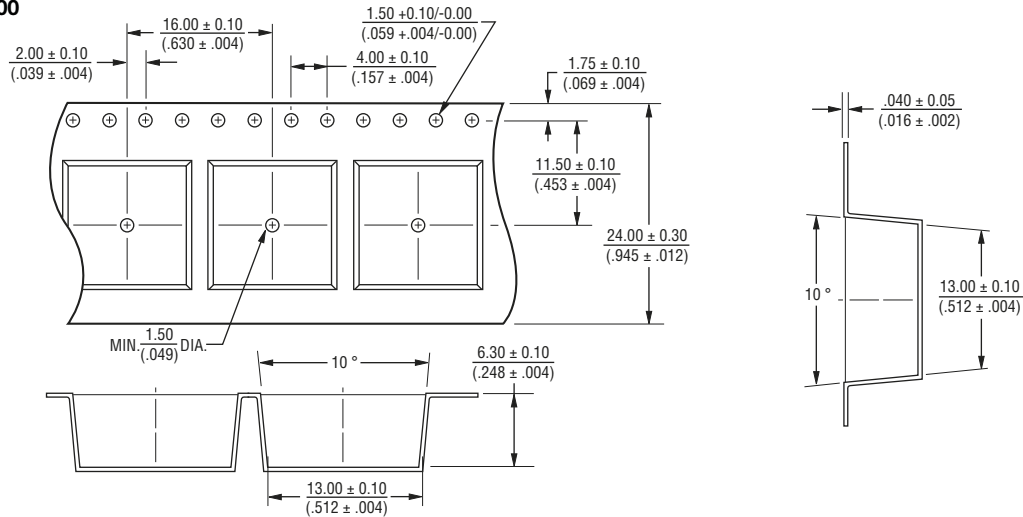
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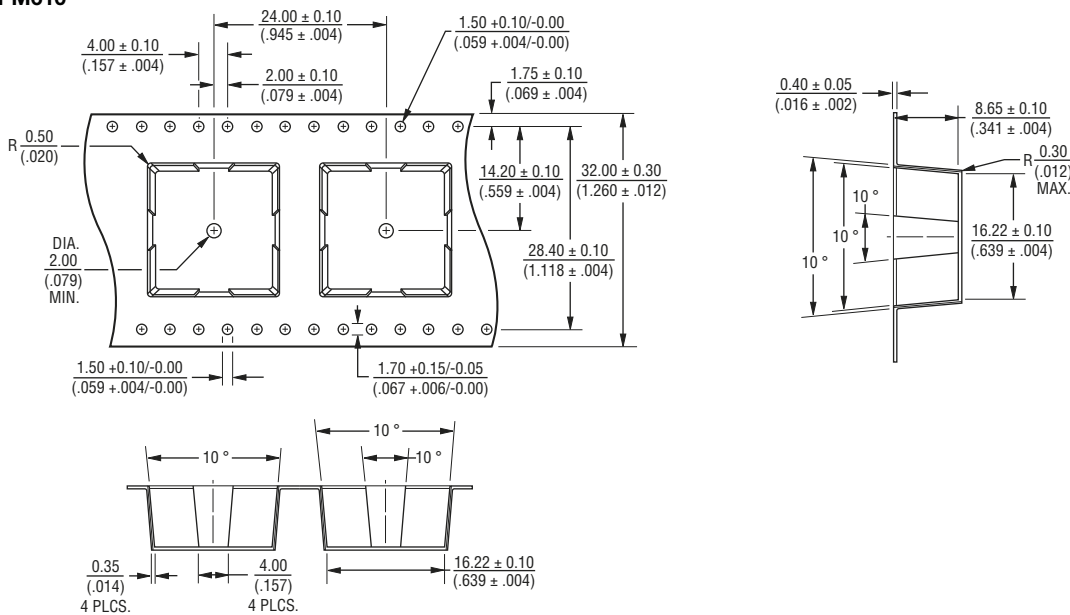
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Packaging Specifications

PM600



PM610



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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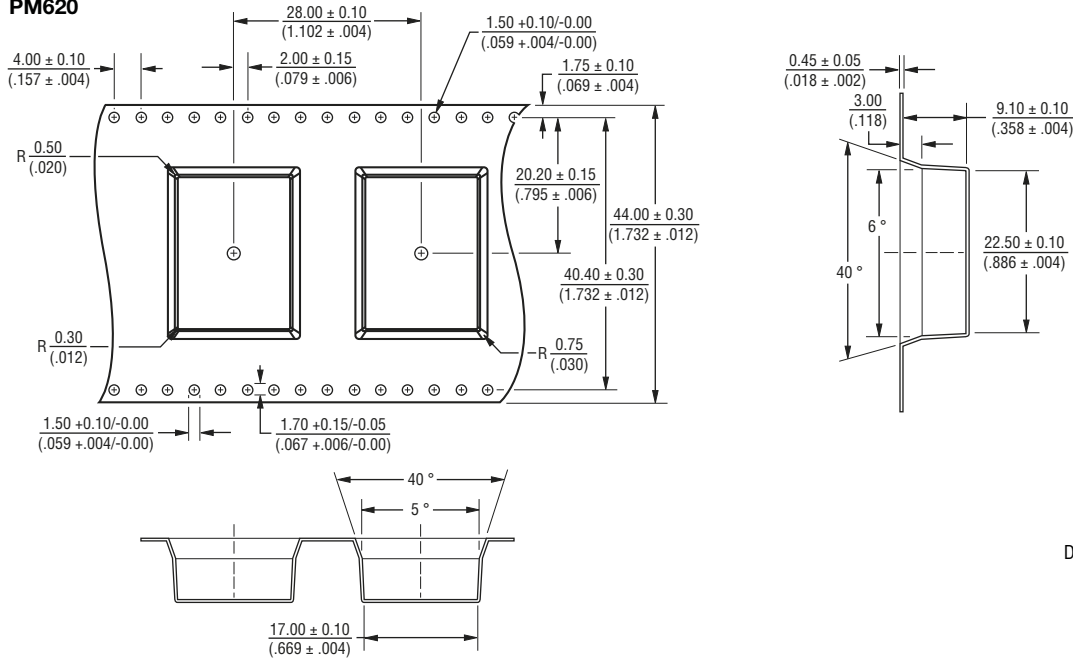
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PM600/PM610/PM620 Series - SMD Inductor/Transformer

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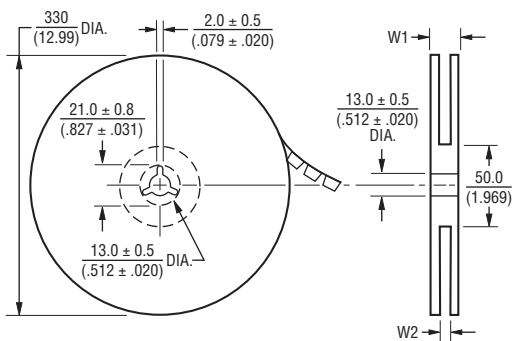
Packaging Specifications (Continued)

PM620

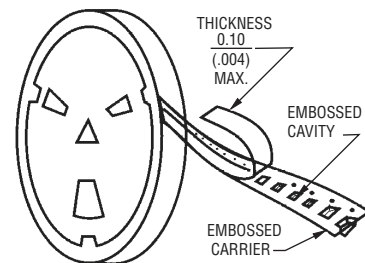


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

<1> Single or multi-windings in parallel. ET of multiple winding in series is number of windings times value of ET.



	W1	W2
PM600	30.4 (1.197)	26.0 (1.024)
PM610	38.4 (1.512)	34.0 (1.339)
PM620	50.4 (1.984)	46.0 (1.811)



REV. 06/08

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