

**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

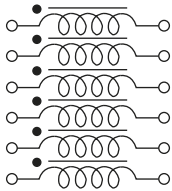


**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

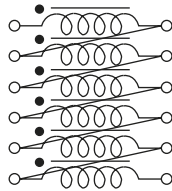
\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific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

Typical Configurations

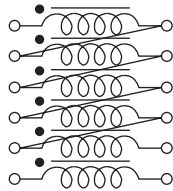
**Inductor:**



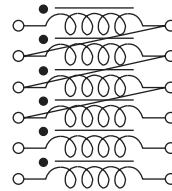
*Basic Diagram*  
Inductance: L  
Current: I



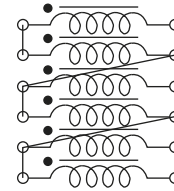
*Figure 1*  
Inductance: 36 x L  
Current: I



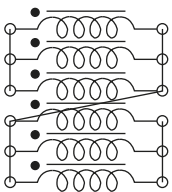
*Figure 2*  
Inductance: 25 x L  
Current: I



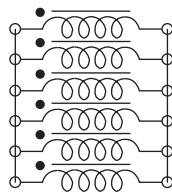
*Figure 3*  
Inductance: 16 x L  
Current: I



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

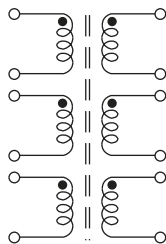


*Figure 5*  
Inductance: 4 x L  
Current: 3 x I

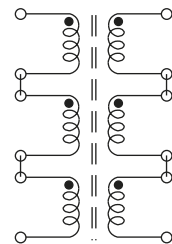


*Figure 6*  
Inductance: L  
Current: 6 x I

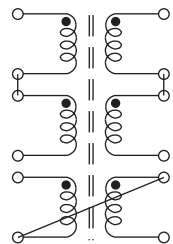
**Transformer:**



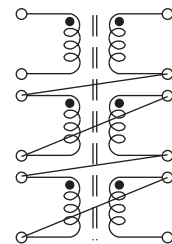
*Basic Diagram*  
Turns Ratio:  
1:1:1:1:1:1



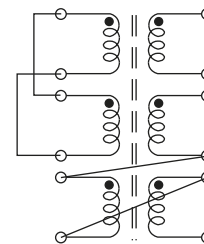
*Figure 1*  
Turns Ratio:  
1:1



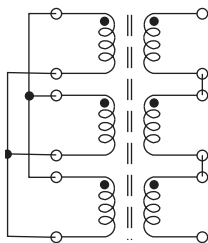
*Figure 2*  
Turns Ratio:  
1:1:1



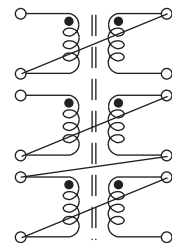
*Figure 3*  
Turns Ratio:  
1:5 or 5:1



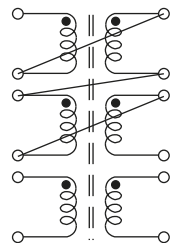
*Figure 4*  
Turns Ratio:  
1:4 or 4:1



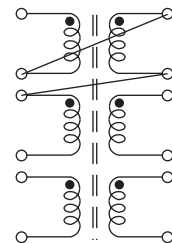
*Figure 5*  
Turns Ratio:  
1:3 or 3:1



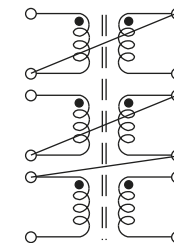
*Figure 6*  
Turns Ratio:  
1:2 or 2:1



*Figure 7*  
Turns Ratio:  
4:1:1



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



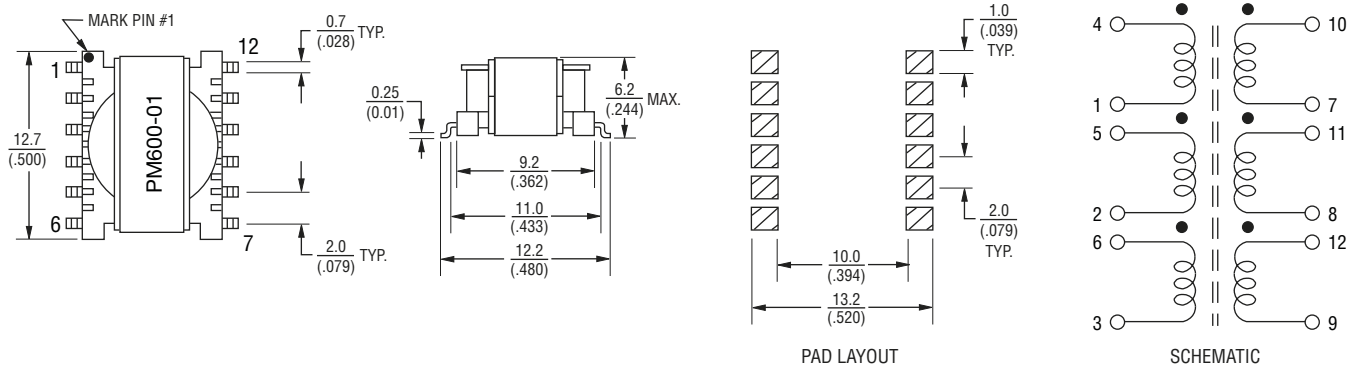
*Figure 9*  
Turns Ratio:  
2:3 or 3:2

# PM600/PM610/PM620 Series - SMD Inductor/Transformer

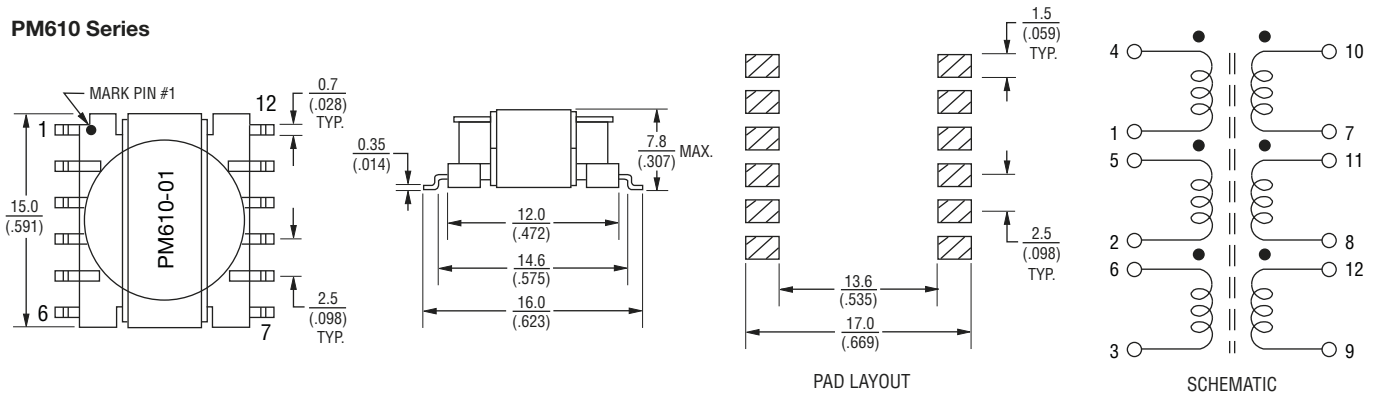
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## Product Dimensions

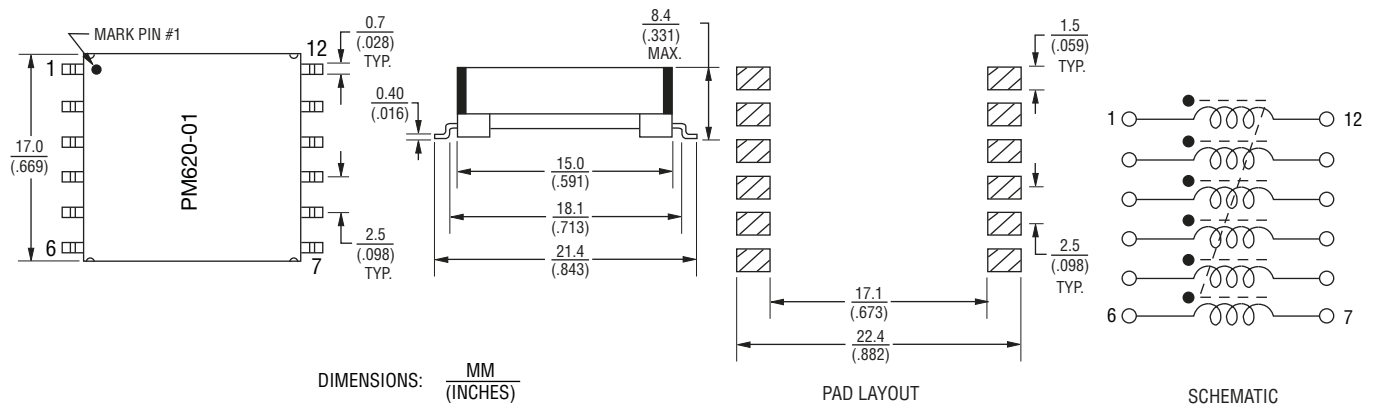
### PM600 Series



### PM610 Series



### PM620 Series



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

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

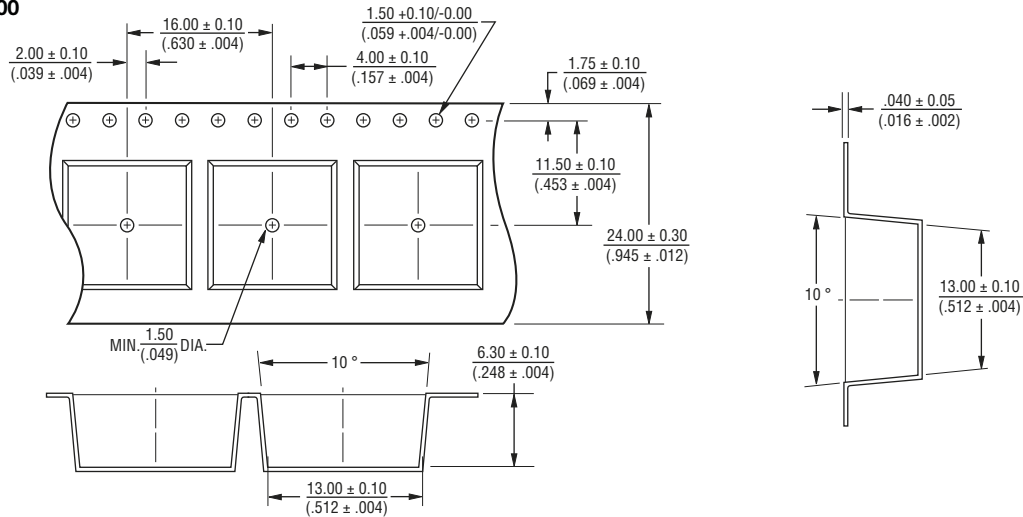
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# PM600/PM610/PM620 Series - SMD Inductor/Transformer

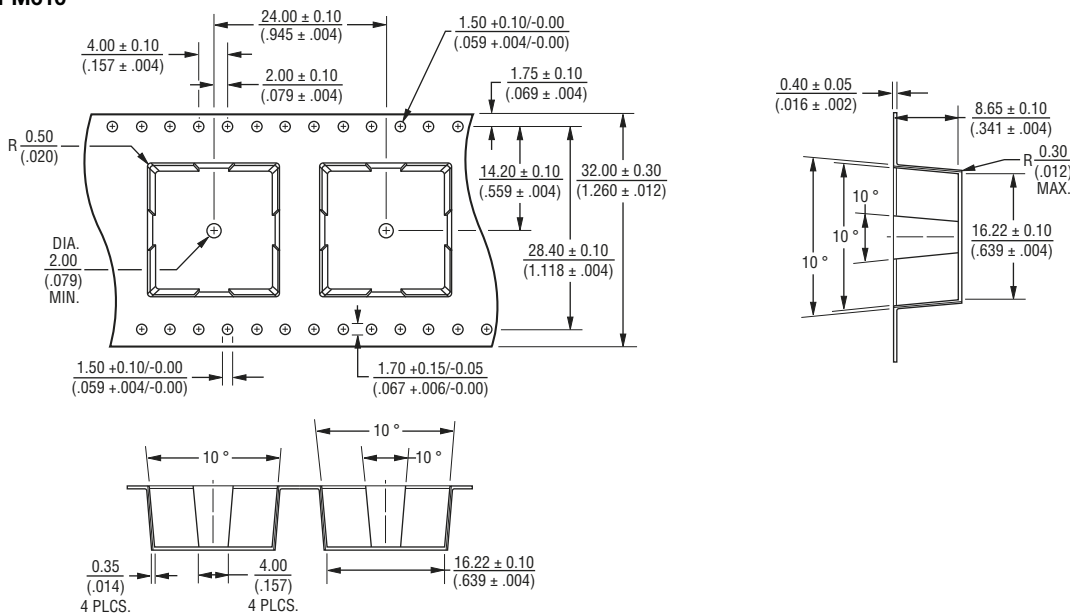
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## Packaging Specifications

### PM600



### PM610



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

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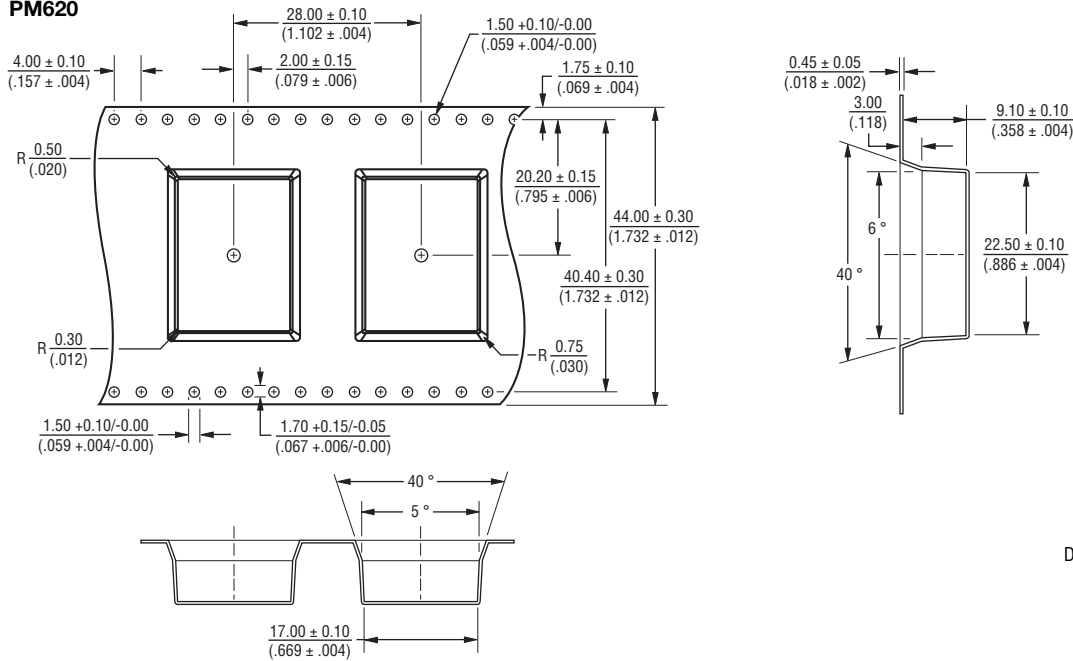
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# PM600/PM610/PM620 Series - SMD Inductor/Transformer

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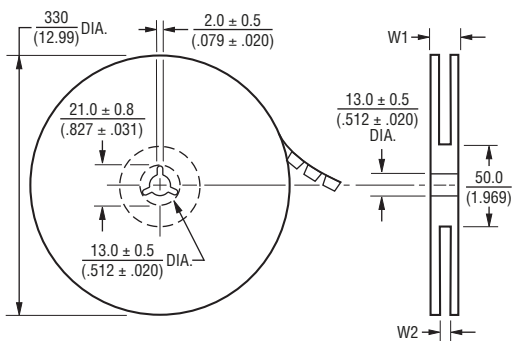
## Packaging Specifications (Continued)

### PM620

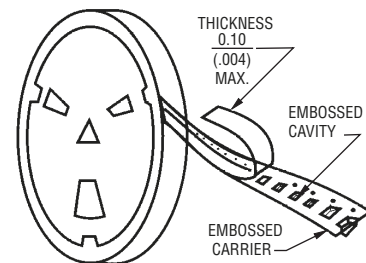


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

<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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