

## Features

- Formerly **J.W. Miller**® model
- Available in E6 series
- Low profile of only 6.6 mm
- Inductance as low as 1  $\mu\text{H}$
- RoHS compliant\*

## Applications

- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

# PM5022 Series - SMD Power Inductor

## Electrical Specifications

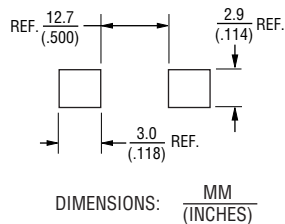
Bourns Part No.	Inductance 100 kHz		Test Q Ref.	SRF Frequency (MHz)	Typ. (MHz)	RDC (m $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu\text{H}$ )	Tol. %						
PM5022-1R0M-RC	1.0	$\pm 20$	21	7.96	100.0	4.0	10.0	30.00
PM5022-2R2M-RC	2.2	$\pm 20$	22	7.96	55.0	6.8	9.00	22.00
PM5022-3R3M-RC	3.3	$\pm 20$	22	7.96	40.0	9.8	7.60	17.00
PM5022-5R6M-RC	5.6	$\pm 20$	23	7.96	30.0	15.0	6.40	12.80
PM5022-8R2M-RC	8.2	$\pm 20$	22	7.96	27.0	20.0	7.00	9.40
PM5022-100M-RC	10	$\pm 20$	22	2.52	25.0	25.0	5.30	10.00
PM5022-150M-RC	15	$\pm 20$	20	2.52	17.0	35.0	4.30	8.00
PM5022-220M-RC	22	$\pm 20$	22	2.52	13.0	45.0	3.60	6.70
PM5022-330M-RC	33	$\pm 20$	24	2.52	11.0	68.0	3.00	5.40
PM5022-470M-RC	47	$\pm 20$	22	2.52	9.0	95.0	2.50	4.60
PM5022-680M-RC	68	$\pm 20$	22	2.52	8.0	130.0	2.10	3.80
PM5022-101<1>-RC	100	$\pm 10$	25	0.796	7.0	190.0	1.70	3.20
PM5022-151<1>-RC	150	$\pm 10$	23	0.796	5.0	270.0	1.40	2.60
PM5022-221<1>-RC	220	$\pm 10$	20	0.796	4.5	420.0	1.10	2.20
PM5022-331<1>-RC	330	$\pm 10$	18	0.796	3.5	580.0	1.00	1.80
PM5022-471<1>-RC	470	$\pm 10$	15	0.796	3.0	820.0	0.80	1.50
PM5022-681<1>-RC	680	$\pm 10$	12	0.796	2.5	1200.0	0.70	1.20
PM5022-102<1>-RC	1000	$\pm 10$	10	0.252	2.0	1800.0	0.50	1.00

<1> Enter tolerance code: K =  $\pm 10\%$ , M =  $\pm 20\%$ .

## Electrical Schematic



## Recommended Layout



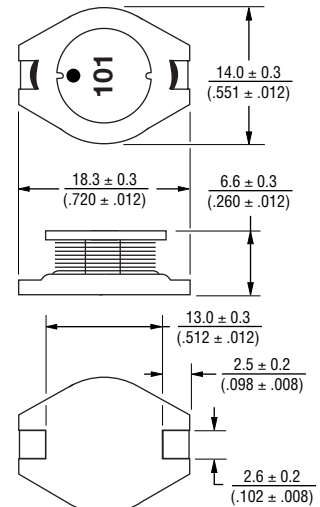
## General Specifications

Test Voltage ..... 0.1 V  
 Reflow soldering .... 250 °C; 10 sec max.  
 (In compliance with JEDEC,  
 J-STD-020C, Table 4-2)  
 Operating Temperature  
 ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature  
 ..... -40 °C to +125 °C  
 Resistance to Soldering Heat  
 ..... 250 °C, 10 sec. max.  
 Moisture Sensitivity Level ..... 2  
 ESD Classification (HBM) ..... N/A

## Materials

Core ..... Ferrite DR  
 Wire ..... Enameled copper  
 Base ..... LCP E4008  
 Terminal ..... Cu/Sn  
 Rated Current  
 ..... Ind. drop 10 % typ. at Isat  
 Temp. Rise ..... 40 °C max. at rated I rms  
 Packaging ..... 250 pcs. per reel

## Product Dimensions



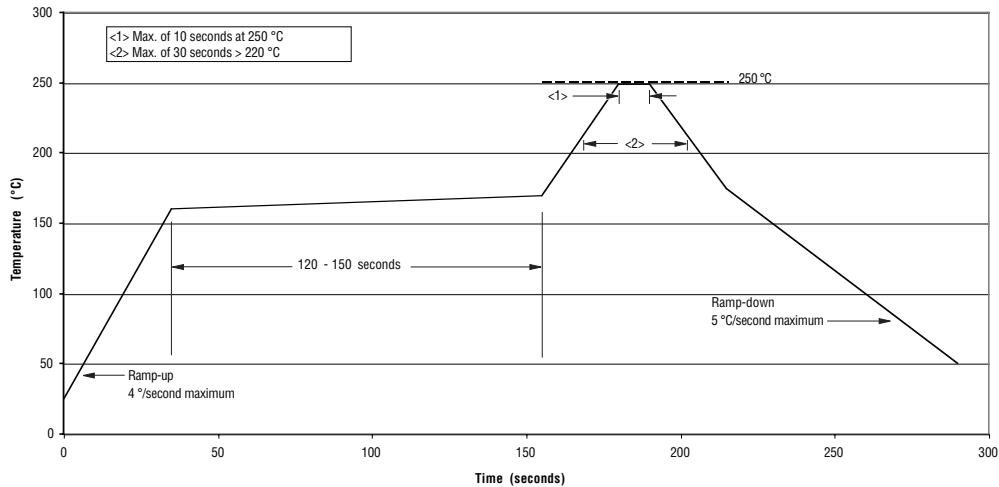
• = START OF WINDING

\*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.  
 The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
 Users should verify actual device performance in their specific applications.

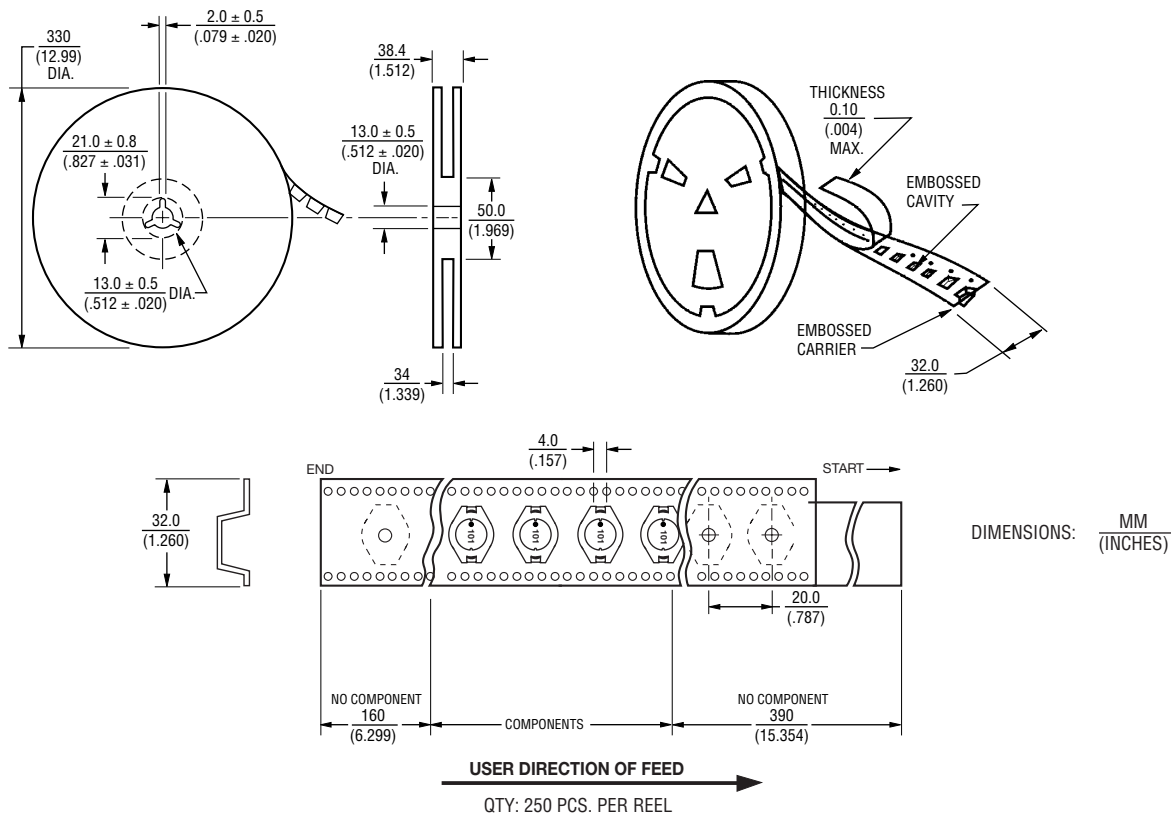
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**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 03/18

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