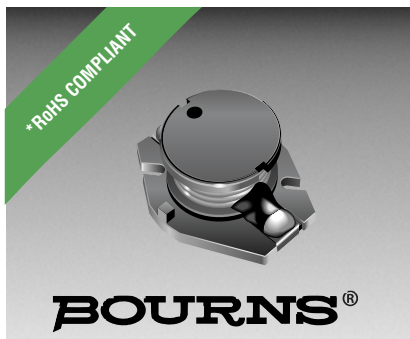




# THE DATASHEET OF PM5022-330M-RC



## Features

- Formerly J.W. Miller® model
- Available in E6 series
- Low profile of only 6.6 mm
- Inductance as low as 1  $\mu$ 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<br>100 kHz |          | Test<br>Q<br>Ref. | SRF<br>Frequency<br>(MHz) | Typ.<br>(MHz) | RDC<br>(m $\Omega$ ) | I rms<br>Max.<br>(A) | I sat<br>Typ.<br>(A) |
|------------------|-----------------------|----------|-------------------|---------------------------|---------------|----------------------|----------------------|----------------------|
|                  | ( $\mu$ 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 =  $\pm 20$  %.

## 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

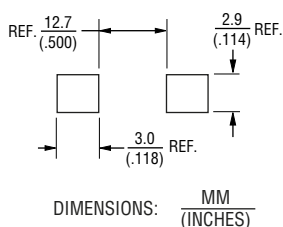
## Materials

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

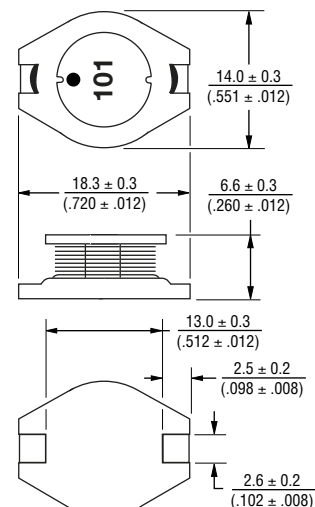
## Electrical Schematic



## Recommended Layout



## Product Dimensions



• = START OF WINDING



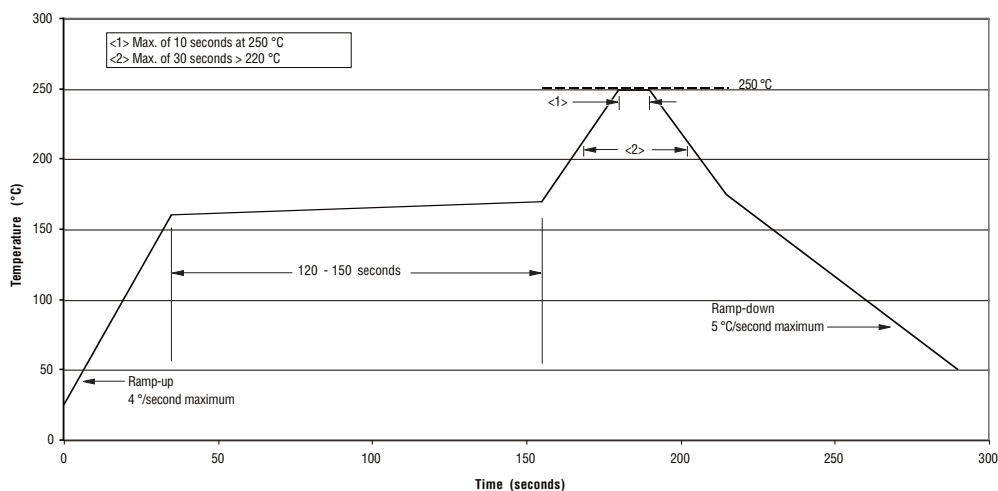
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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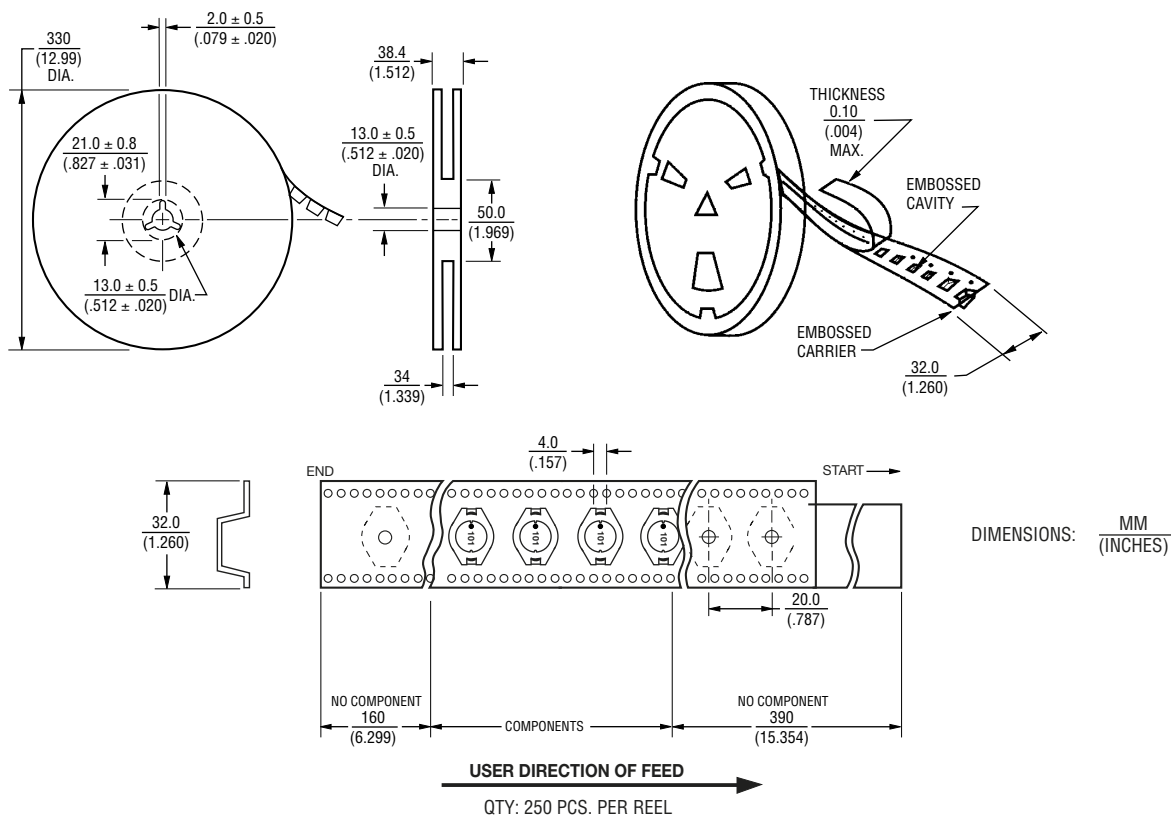
# PM5022 Series - SMD Power Inductor

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 03/18

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Users should verify actual device performance in their specific applications.

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