



## Features

- Formerly **J. W. Miller®** model
- Available in E12 series
- Low profile of only 2.5 mm
- Low inductance values
- RoHS compliant\*

## Applications

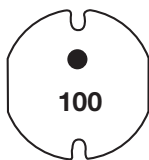
- Input/output of DC-DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

# PM32 Series - SMD Power Inductors

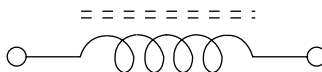
## Electrical Specifications

| Bourns Part No. | Inductance 100 kHz |        | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) |
|-----------------|--------------------|--------|--------|----------------------|----------------|--------------|----------------|----------------|
|                 | (μH)               | Tol. % |        |                      |                |              |                |                |
| PM32-1R0M-RC    | 1.0                | ± 20   | 20     | 7.96                 | 125.0          | 0.06         | 2.100          | 2.700          |
| PM32-1R4M-RC    | 1.4                | ± 20   | 22     | 7.96                 | 95.0           | 0.07         | 1.500          | 2.300          |
| PM32-1R8M-RC    | 1.8                | ± 20   | 23     | 7.96                 | 85.0           | 0.08         | 1.800          | 2.000          |
| PM32-2R2M-RC    | 2.2                | ± 20   | 22     | 7.96                 | 75.0           | 0.09         | 1.650          | 1.850          |
| PM32-2R7M-RC    | 2.7                | ± 20   | 22     | 7.96                 | 72.0           | 0.10         | 1.500          | 1.700          |
| PM32-3R3M-RC    | 3.3                | ± 20   | 23     | 7.96                 | 68.0           | 0.11         | 1.400          | 1.600          |
| PM32-3R9M-RC    | 3.9                | ± 20   | 24     | 7.96                 | 50.0           | 0.12         | 1.300          | 1.500          |
| PM32-4R7M-RC    | 4.7                | ± 20   | 18     | 7.96                 | 45.0           | 0.15         | 1.200          | 1.350          |
| PM32-5R6M-RC    | 5.6                | ± 20   | 18     | 7.96                 | 42.0           | 0.16         | 1.100          | 1.300          |
| PM32-6R8M-RC    | 6.8                | ± 20   | 18     | 7.96                 | 40.0           | 0.18         | 1.000          | 1.200          |
| PM32-8R2M-RC    | 8.2                | ± 20   | 16     | 7.96                 | 35.0           | 0.20         | 0.900          | 1.050          |
| PM32-100M-RC    | 10.0               | ± 20   | 18     | 2.52                 | 34.0           | 0.25         | 0.800          | 0.900          |
| PM32-120M-RC    | 12.0               | ± 20   | 15     | 2.52                 | 33.0           | 0.28         | 0.750          | 0.850          |
| PM32-150M-RC    | 15.0               | ± 20   | 20     | 2.52                 | 32.0           | 0.40         | 0.650          | 0.800          |
| PM32-180M-RC    | 18.0               | ± 20   | 18     | 2.52                 | 28.0           | 0.46         | 0.580          | 0.750          |
| PM32-220M-RC    | 22.0               | ± 20   | 23     | 2.52                 | 22.0           | 0.66         | 0.520          | 0.650          |
| PM32-270M-RC    | 27.0               | ± 20   | 23     | 2.52                 | 20.0           | 0.75         | 0.480          | 0.550          |
| PM32-330M-RC    | 33.0               | ± 20   | 20     | 2.52                 | 18.0           | 0.85         | 0.420          | 0.500          |
| PM32-390M-RC    | 39.0               | ± 20   | 24     | 2.52                 | 18.0           | 1.12         | 0.380          | 0.450          |
| PM32-470M-RC    | 47.0               | ± 20   | 23     | 2.52                 | 17.0           | 1.27         | 0.360          | 0.400          |
| PM32-560M-RC    | 56.0               | ± 20   | 18     | 2.52                 | 16.0           | 1.45         | 0.340          | 0.350          |
| PM32-680M-RC    | 68.0               | ± 20   | 24     | 2.52                 | 14.0           | 1.85         | 0.300          | 0.320          |
| PM32-820M-RC    | 82.0               | ± 20   | 24     | 2.52                 | 12.0           | 2.10         | 0.280          | 0.300          |
| PM32-101M-RC    | 100.0              | ± 20   | 40     | 0.796                | 10.0           | 2.85         | 0.260          | 0.280          |
| PM32-121M-RC    | 120.0              | ± 20   | 40     | 0.796                | 10.0           | 3.20         | 0.220          | 0.250          |
| PM32-151M-RC    | 150.0              | ± 20   | 38     | 0.796                | 9.0            | 4.60         | 0.200          | 0.230          |
| PM32-181M-RC    | 180.0              | ± 20   | 45     | 0.796                | 8.5            | 5.00         | 0.185          | 0.210          |
| PM32-221M-RC    | 220.0              | ± 20   | 40     | 0.796                | 8.0            | 5.70         | 0.170          | 0.190          |
| PM32-271M-RC    | 270.0              | ± 20   | 45     | 0.796                | 7.0            | 8.60         | 0.150          | 0.170          |
| PM32-331M-RC    | 330.0              | ± 20   | 40     | 0.796                | 6.0            | 10.00        | 0.130          | 0.150          |
| PM32-391M-RC    | 390.0              | ± 20   | 40     | 0.796                | 5.5            | 10.80        | 0.120          | 0.140          |
| PM32-471M-RC    | 470.0              | ± 20   | 42     | 0.796                | 5.0            | 14.30        | 0.105          | 0.130          |

## Typical Part Marking



## Electrical Schematic



## Additional Information

Click these links for more information:



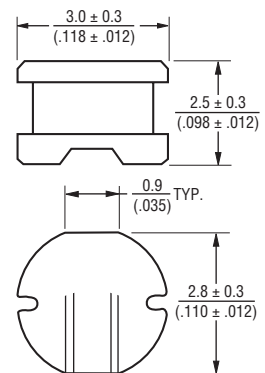
## General Specifications

Test Voltage.....0.1 V  
 Operating Temperature  
 .....-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature  
 .....-40 °C to +125 °C  
 Moisture Sensitivity Level.....1  
 ESD Classification (HBM).....N/A

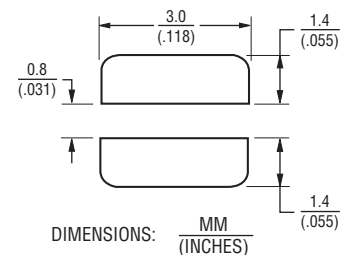
## Materials

Core ..... Ferrite DR  
 Wire ..... Enamelled copper wire  
 Terminal Finish ..... SnAgCu  
 Rated Current  
 ..... Ind. drop 10 % typ. at Isat  
 Temperature Rise ..... 40 °C max.  
 at rated I rms  
 Packaging..... 1500 pcs. per reel

## Product Dimensions



## Recommended Layout



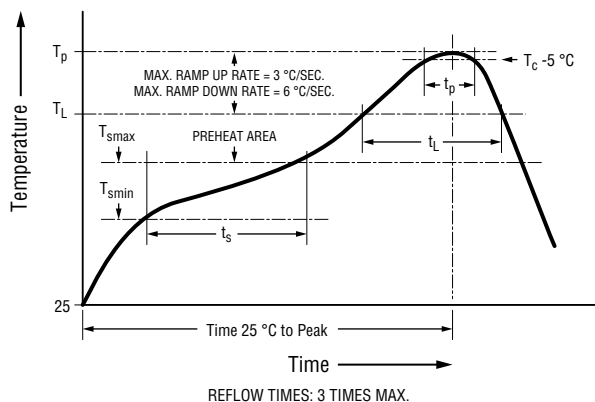
**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant.  
 See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 Specifications are subject to change without notice.  
 Users should verify actual device performance in their specific applications.  
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# PM32 Series - SMD Power Inductors

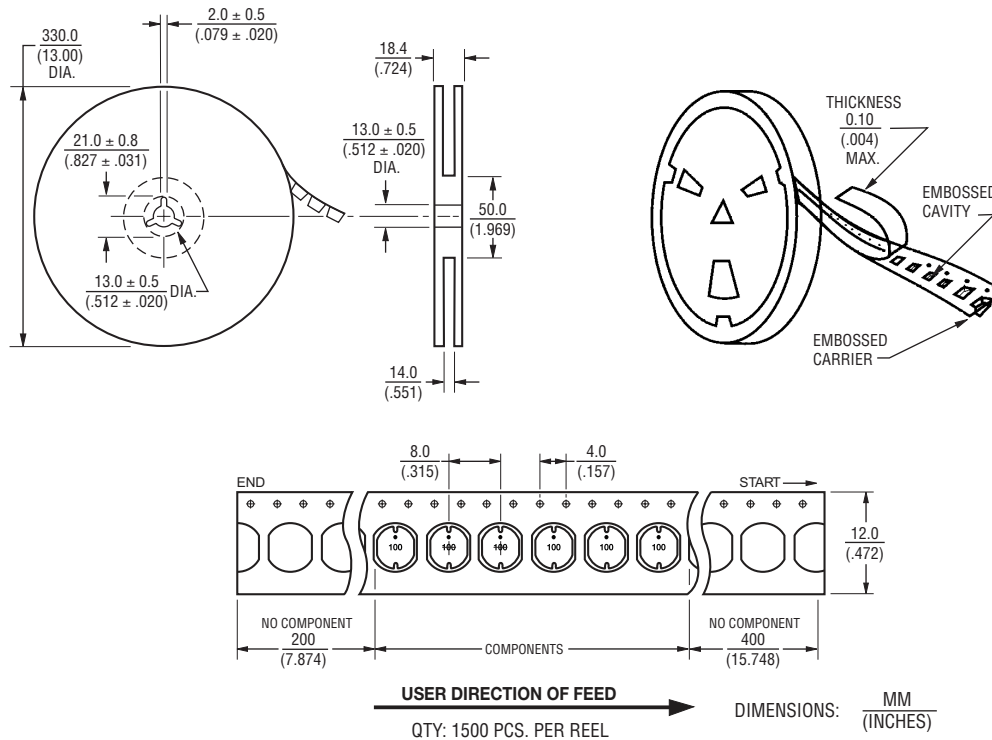
**BOURNS®**

## Soldering Profile



| Profile Feature                                                                                                                                                                                                                                 | Pb Free Assembly                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Preheat <ul style="list-style-type: none"> <li>- Temperature Min. (<math>T_{smin}</math>)</li> <li>- Temperature Max. (<math>T_{smax}</math>)</li> <li>- Time (<math>t_s</math>) from <math>T_{smin}</math> to <math>T_{smax}</math></li> </ul> | 150 °C<br>200 °C<br>60-120 seconds |
| Ramp-up Rate ( $T_L$ to $T_p$ )                                                                                                                                                                                                                 | 3 °C/second max.                   |
| Liquidous temperature ( $T_L$ )<br>Time ( $t_L$ ) maintained above $T_L$                                                                                                                                                                        | 217 °C<br>60-150 seconds           |
| Classification Temperature ( $T_c$ )                                                                                                                                                                                                            | 260 °C                             |
| Time ( $t_p$ ) at $T_c - 5$ °C<br>( $T_p$ should be equal to or less than $T_c$ )                                                                                                                                                               | < 30 seconds                       |
| Ramp-Down Rate ( $T_p$ to $T_L$ )                                                                                                                                                                                                               | 6 °C/second max.                   |
| Time 25 °C to Peak Temperature                                                                                                                                                                                                                  | 8 minutes max.                     |

## Packaging Specifications



REV. 03/26

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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