

### Features

- Formerly J. W. Miller<sup>°</sup> model
- Available in E12 series
- Small diameter of only 5.8 mm maximum
- Profile of 4.8 mm
- RoHS compliant\*

### **Applications**

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

# **PM54 Series - SMD Power Inductor**

#### **Electrical Specifications**

|                 | Inductan | ce 1 kHz |           | Test               | SRF           |            | Irms        | Isat        |
|-----------------|----------|----------|-----------|--------------------|---------------|------------|-------------|-------------|
| Bourns Part No. | (µH)     | Tol. %   | Q<br>Ref. | Frequency<br>(MHz) | Min.<br>(MHz) | RDC<br>(Ω) | Max.<br>(A) | Тур.<br>(А) |
| PM54-100M-RC    | 10       | ± 20     | 30        | 2.52               | 23            | 0.10       | 1.45        | 2.00        |
| PM54-120M-RC    | 12       | ± 20     | 30        | 2.52               | 22            | 0.12       | 1.40        | 1.90        |
| PM54-150M-RC    | 15       | ± 20     | 30        | 2.52               | 20            | 0.14       | 1.30        | 1.60        |
| PM54-180M-RC    | 18       | ± 20     | 30        | 2.52               | 18            | 0.15       | 1.25        | 1.50        |
| PM54-220M-RC    | 22       | ± 20     | 30        | 2.52               | 16            | 0.19       | 1.10        | 1.40        |
| PM54-270M-RC    | 27       | ± 15     | 28        | 2.52               | 14            | 0.22       | 1.00        | 1.30        |
| PM54-330L-RC    | 33       | ± 15     | 24        | 2.52               | 13            | 0.25       | 0.88        | 1.10        |
| PM54-390L-RC    | 39       | ± 15     | 24        | 2.52               | 13            | 0.32       | 0.80        | 1.00        |
| PM54-470L-RC    | 47       | ± 15     | 22        | 2.52               | 12            | 0.37       | 0.72        | 1.00        |
| PM54-560K-RC    | 56       | ± 10     | 22        | 2.52               | 11            | 0.42       | 0.68        | 0.90        |
| PM54-680K-RC    | 68       | ± 10     | 22        | 2.52               | 10            | 0.52       | 0.62        | 0.84        |
| PM54-820K-RC    | 82       | ± 10     | 20        | 2.52               | 9             | 0.60       | 0.58        | 0.75        |
| PM54-101K-RC    | 100      | ± 10     | 20        | 0.796              | 9             | 0.70       | 0.52        | 0.68        |
| PM54-121K-RC    | 120      | ± 10     | 22        | 0.796              | 7             | 0.93       | 0.48        | 0.60        |
| PM54-151K-RC    | 150      | ± 10     | 20        | 0.796              | 6             | 1.10       | 0.40        | 0.54        |
| PM54-181K-RC    | 180      | ± 10     | 20        | 0.796              | 6             | 1.38       | 0.38        | 0.50        |
| PM54-221K-RC    | 220      | ± 10     | 20        | 0.796              | 6             | 1.57       | 0.35        | 0.44        |

#### **Typical Part Marking**



#### **General Specifications**

Test Voltage ......1 V Reflow soldering .... 230 °C, 50 sec max. Operating Temperature

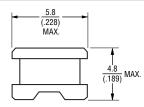
.....-40 °C to +125 °C (Temperature rise included) Storage Temperature .. -40 °C to +125 °C Resistance to Soldering Heat

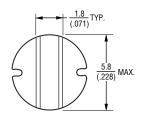
#### Materials

| Core          | Ferrite DR core |
|---------------|-----------------|
| Wire          | Enameled copper |
| Terminal:     | Ag/Ni/Sn        |
| Rated Current | -               |

.....Ind. drop 10 % typ. at Isat Temp. Rise......40 °C max. at rated Irms Packaging......1500 pcs. per reel

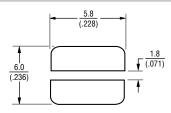
#### **Product Dimensions**





#### **Recommended Layout**

DIMENSIONS:



MM

(INCHES)

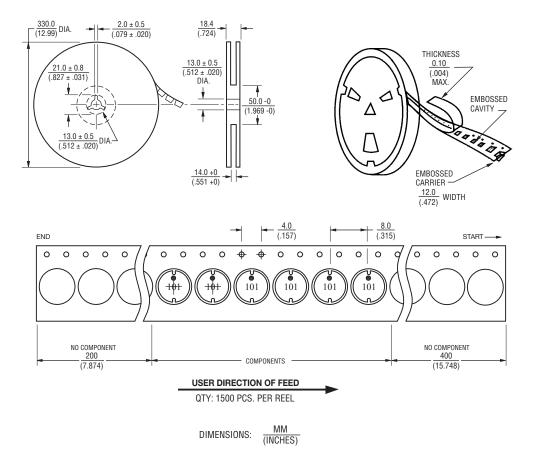
WARNING Cancer and Reproductive Harm - <u>www.P65Warnings.ca.gov</u>

\* 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 <a href="http://www.bourns.com/docs/legal/disclaimer.pdf">www.bourns.com/docs/legal/disclaimer.pdf</a>

# **PM54 Series - SMD Power Inductor**

## BOURNS

#### **Packaging Specifications**



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REV. 05/18

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