



Features

- Formerly J. W. Miller® model
- Available in E12 series
- Small diameter of only 5.8 mm maximum
- Profile of 4.8 mm
- RoHS compliant*

Applications

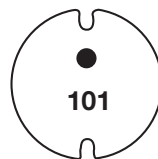
- Input/output of DC/DC converters
- Power supplies for:
 - Portable communication equipment
 - Camcorders
 - LCD TVs
 - Car radios

PM54 Series - SMD Power Inductor

Electrical Specifications

| Bourns Part No. | Inductance 1 kHz | | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC (Ω) | I _{rms} Max. (A) | I _{sat} Typ. (A) |
|-----------------|------------------|--------|--------|----------------------|----------------|---------|---------------------------|---------------------------|
| | (μH) | Tol. % | | | | | | |
| 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



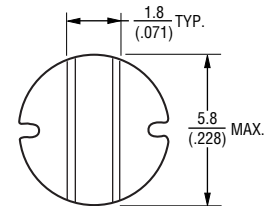
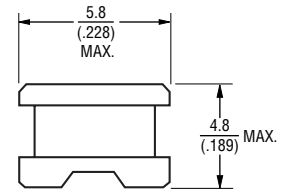
General Specifications

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
 260 °C for 5 sec.

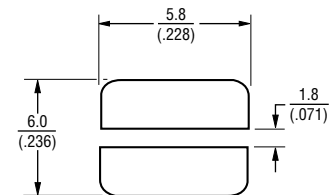
Materials

Core Ferrite DR core
 Wire Enameled copper
 Terminal: Ag/Ni/Sn
 Rated Current
 Ind. drop 10 % typ. at I_{sat}
 Temperature Rise
 40 °C max. at rated I_{rms}
 Packaging 1500 pcs. per reel

Product Dimensions



Recommended Layout



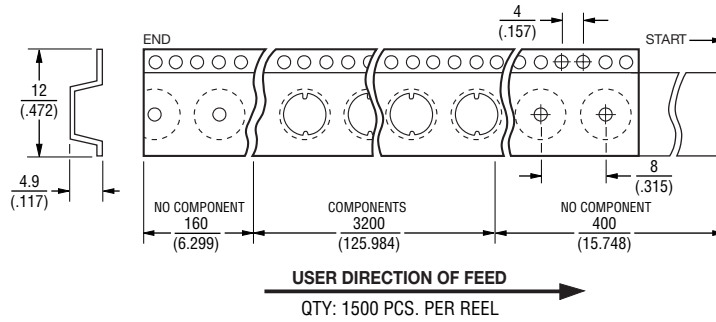
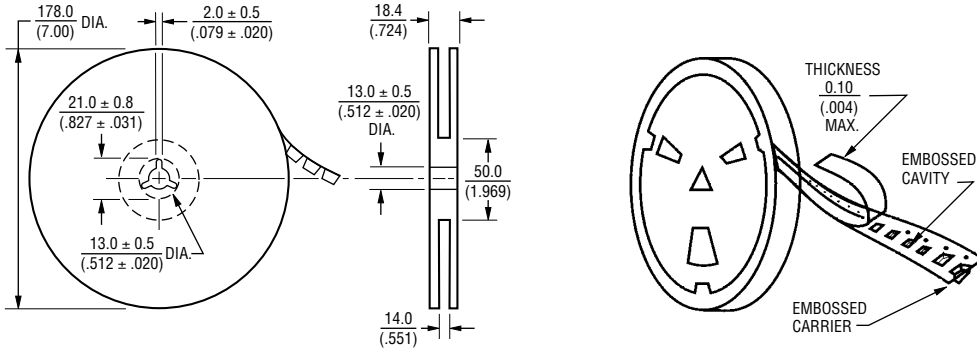
DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

*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. Customers should verify actual device performance in their specific applications.

PM54 Series - SMD Power Inductor

BOURNS®

Packaging Specifications



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

REV. 05/12

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