



**THE DATASHEET OF
PM105-560K-RC**





Features

- Formerly J. W. Miller® model
- Available in E12 series
- Small design of only 9.8 mm maximum diameter
- RoHS compliant*

Applications

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

PM105 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. % | | | | | | |
| PM105-100M-RC | 10 | ± 20 | 30 | 2.52 | 21 | 0.060 | 2.60 | 5.10 |
| PM105-120M-RC | 12 | ± 20 | 30 | 2.52 | 20 | 0.070 | 2.45 | 4.50 |
| PM105-150M-RC | 15 | ± 20 | 30 | 2.52 | 16 | 0.080 | 2.25 | 4.00 |
| PM105-180M-RC | 18 | ± 20 | 30 | 2.52 | 15 | 0.090 | 2.15 | 3.80 |
| PM105-220M-RC | 22 | ± 20 | 25 | 2.52 | 13 | 0.10 | 1.95 | 3.50 |
| PM105-270K-RC | 27 | ± 10 | 25 | 2.52 | 11 | 0.11 | 1.75 | 3.40 |
| PM105-330K-RC | 33 | ± 10 | 25 | 2.52 | 10 | 0.12 | 1.50 | 2.90 |
| PM105-390K-RC | 39 | ± 10 | 20 | 2.52 | 9.0 | 0.14 | 1.35 | 2.60 |
| PM105-470K-RC | 47 | ± 10 | 20 | 2.52 | 8.0 | 0.17 | 1.25 | 2.30 |
| PM105-560K-RC | 56 | ± 10 | 20 | 2.52 | 7.5 | 0.19 | 1.15 | 2.10 |
| PM105-680K-RC | 68 | ± 10 | 15 | 2.52 | 7.0 | 0.22 | 1.10 | 2.00 |
| PM105-820K-RC | 82 | ± 10 | 15 | 2.52 | 6.0 | 0.25 | 1.00 | 1.90 |
| PM105-101K-RC | 100 | ± 10 | 15 | 0.796 | 5.2 | 0.35 | 0.97 | 1.70 |
| PM105-121K-RC | 120 | ± 10 | 15 | 0.796 | 5.0 | 0.40 | 0.89 | 1.50 |
| PM105-151K-RC | 150 | ± 10 | 15 | 0.796 | 4.5 | 0.47 | 0.78 | 1.40 |
| PM105-181K-RC | 180 | ± 10 | 12 | 0.796 | 4.0 | 0.63 | 0.72 | 1.30 |
| PM105-221K-RC | 220 | ± 10 | 12 | 0.796 | 3.8 | 0.73 | 0.66 | 1.10 |
| PM105-271K-RC | 270 | ± 10 | 12 | 0.796 | 3.5 | 0.97 | 0.57 | 1.00 |
| PM105-331K-RC | 330 | ± 10 | 12 | 0.796 | 3.2 | 1.15 | 0.52 | 0.85 |
| PM105-391K-RC | 390 | ± 10 | 12 | 0.796 | 3.0 | 1.30 | 0.48 | 0.80 |
| PM105-471K-RC | 470 | ± 10 | 12 | 0.796 | 2.5 | 1.48 | 0.42 | 0.80 |
| PM105-561K-RC | 560 | ± 10 | 12 | 0.796 | 2.3 | 1.90 | 0.33 | 0.66 |
| PM105-681K-RC | 680 | ± 10 | 12 | 0.796 | 2.1 | 2.25 | 0.28 | 0.65 |
| PM105-821K-RC | 820 | ± 10 | 10 | 0.796 | 2.0 | 2.55 | 0.24 | 0.56 |

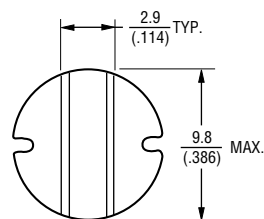
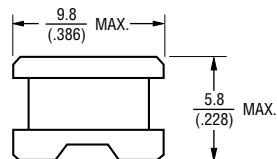
General Specifications

Test Frequency 1 KHz
 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.
 Moisture Sensitivity Level 1
 ESD Classification (HBM)..... N/A

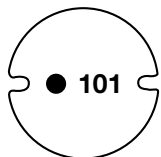
Materials

Core Ferrite DR core
 Wire Enameled copper wire
 Terminal Ag/Ni/Sn
 Rated Current
 Ind. drop 10 % typ. at Isat
 Temperature Rise
 40°C max. at rated I rms
 Packaging 500 pcs. per reel

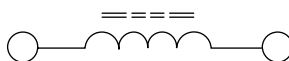
Product Dimensions



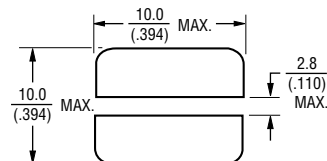
Typical Part Marking



Electrical Schematic



Recommended Layout



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



WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*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.

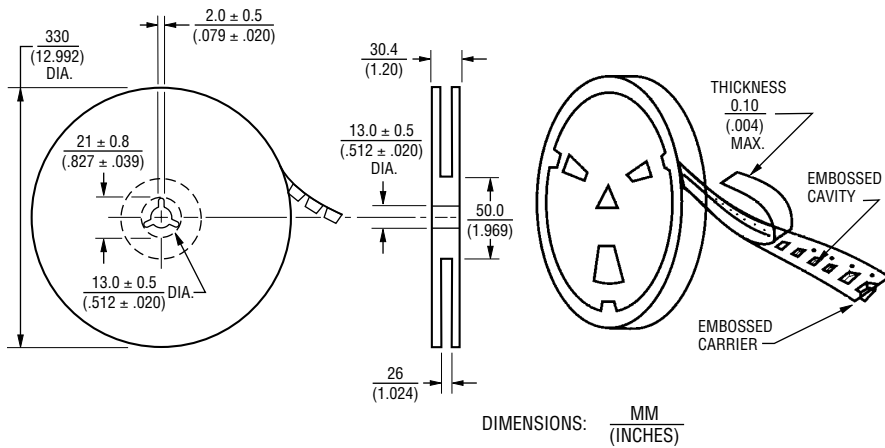
Users should verify actual device performance in their specific applications.

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PM105 Series - SMD Power Inductor

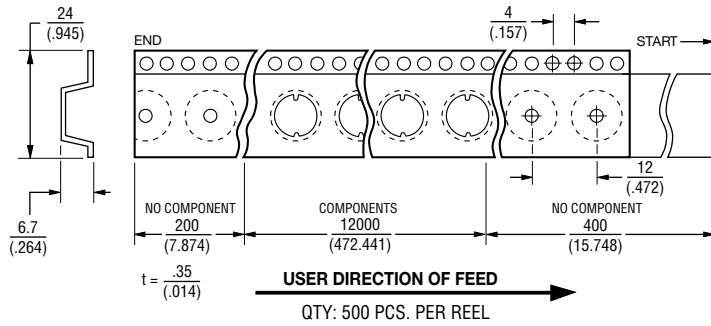
BOURNS®

Packaging Specifications

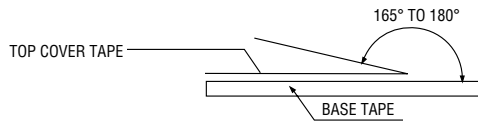


Materials

Paper
Plastics



Strength of Cover Tape



The force for tearing off cover tape is 10 to 130 grams in the arrow direction.

REV. 05/19

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