

Features

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

Applications

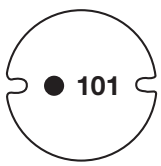
- Input/output of DC-DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

PM105 Series - SMD Power Inductor

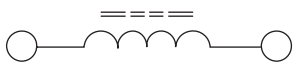
Electrical Specifications

Bourns Part No.	Inductance 1 kHz (μH)	Inductance 1 kHz Tol. %	Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	I rms Typ. (A)	I sat Typ. (A)
PM105-100M-RC	10	± 20	30	2.52	21	0.060	3.20	5.40
PM105-120M-RC	12	± 20	30	2.52	20	0.070	3.00	4.70
PM105-150M-RC	15	± 20	30	2.52	16	0.080	2.70	4.40
PM105-180M-RC	18	± 20	30	2.52	15	0.090	2.60	4.10
PM105-220M-RC	22	± 20	25	2.52	13	0.10	2.50	3.60
PM105-270K-RC	27	± 10	25	2.52	11	0.11	2.44	3.30
PM105-330K-RC	33	± 10	25	2.52	10	0.12	2.30	3.00
PM105-390K-RC	39	± 10	20	2.52	9.0	0.14	2.20	2.70
PM105-470K-RC	47	± 10	20	2.52	8.0	0.17	2.00	2.50
PM105-560K-RC	56	± 10	20	2.52	7.5	0.19	1.90	2.30
PM105-680K-RC	68	± 10	15	2.52	7.0	0.22	1.80	2.10
PM105-820K-RC	82	± 10	15	2.52	6.0	0.25	1.70	2.00
PM105-101K-RC	100	± 10	15	0.796	5.2	0.35	1.40	1.70
PM105-121K-RC	120	± 10	15	0.796	5.0	0.40	1.30	1.60
PM105-151K-RC	150	± 10	15	0.796	4.5	0.47	1.20	1.40
PM105-181K-RC	180	± 10	12	0.796	4.0	0.63	1.10	1.30
PM105-221K-RC	220	± 10	12	0.796	3.8	0.73	1.00	1.20
PM105-271K-RC	270	± 10	12	0.796	3.5	0.97	0.90	1.10
PM105-331K-RC	330	± 10	12	0.796	3.2	1.15	0.80	0.95
PM105-391K-RC	390	± 10	12	0.796	3.0	1.30	0.75	0.85
PM105-471K-RC	470	± 10	12	0.796	2.5	1.48	0.70	0.85
PM105-561K-RC	560	± 10	12	0.796	2.3	1.90	0.65	0.75
PM105-681K-RC	680	± 10	12	0.796	2.1	2.25	0.60	0.70
PM105-821K-RC	820	± 10	10	0.796	2.0	2.55	0.50	0.62

Typical Part Marking



Electrical Schematic



Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

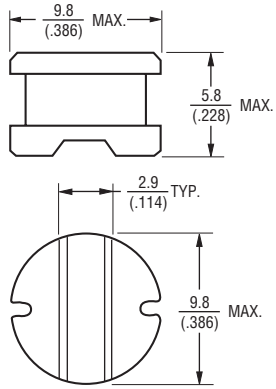
General Specifications

Test Frequency ..... 1 KHz
Test Voltage ..... 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

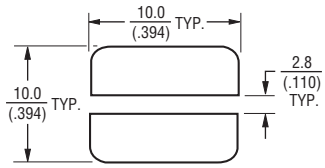
Materials

Core ..... Ferrite DR core
Wire ..... Enameled copper wire
Terminal Finish ..... SnAgCu
Rated Current
..... Ind. drop 10 % typ. at Isat
Temperature Rise
..... 40°C typ. at rated Irms
Packaging ..... 500 pcs. per reel

Product Dimensions



Recommended Layout

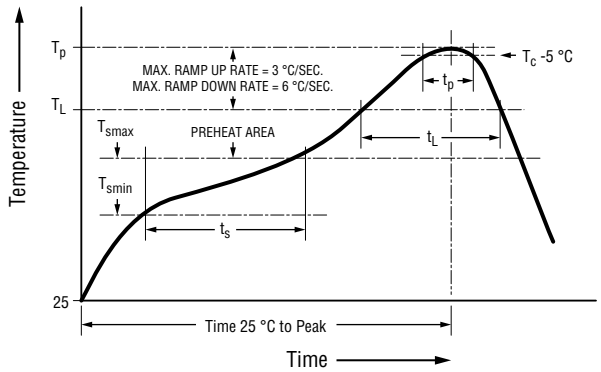


DIMENSIONS: MM (INCHES)

CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.
See 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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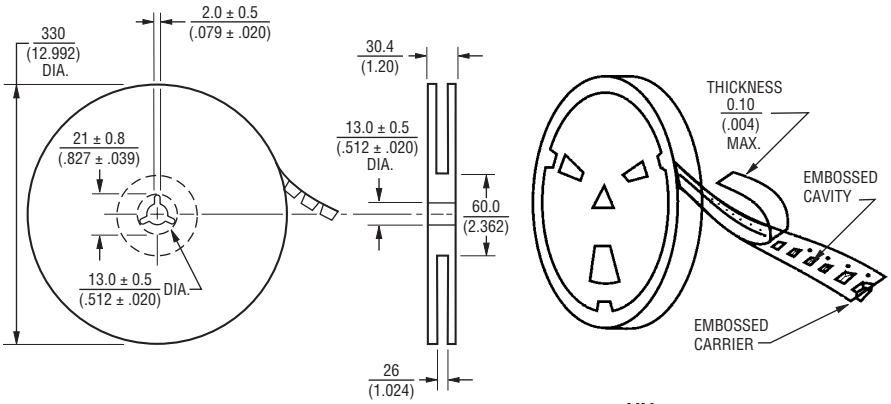
Soldering Profile

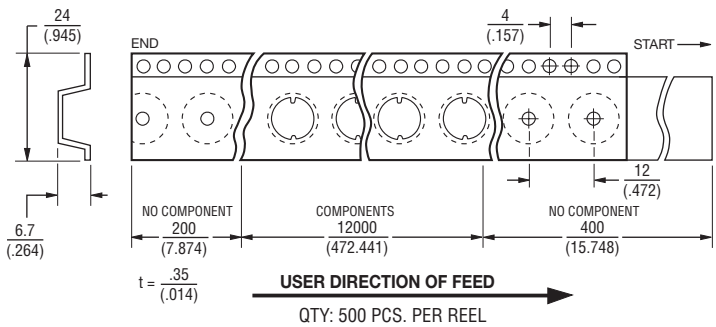


REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_p)	245 °C
Time (t_p) at T_c - 5 °C (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



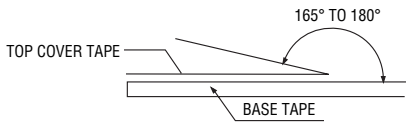


QTY: 500 PCS. PER REEL

Materials

Paper
Plastics

Strength Of Cover Tape



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

REV. 07/26

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