



THE DATASHEET OF PM3316-3R3M-RC



Features

- Formerly J. W. Miller® model
- Available in E6 series
- Low profile of only 5.0 mm
- Inductance as low as 1.0 μ H
- RoHS compliant*

Applications

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

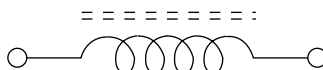
BOURNS®

PM3316 Series - SMD Power Inductors

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)
	(μ H)	Tol. %						
PM3316-1R0M-RC	1	± 20	20	10	137	0.007	7.50	9.00
PM3316-1R5M-RC	1.5	± 20	50	3	95	0.009	6.50	8.00
PM3316-2R2M-RC	2.2	± 20	50	3	65	0.012	6.10	7.00
PM3316-3R3M-RC	3.3	± 20	50	4	54	0.015	5.00	6.40
PM3316-4R7M-RC	4.7	± 20	50	4	42	0.019	4.50	5.40
PM3316-6R8M-RC	6.8	± 20	50	3	31	0.030	3.40	4.50
PM3316-100M-RC	10	± 20	50	3	26	0.050	2.90	3.70
PM3316-150M-RC	15	± 20	50	3	22	0.060	2.50	3.00
PM3316-220M-RC	22	± 20	40	3	18	0.10	2.00	2.50
PM3316-330M-RC	33	± 20	25	1	14	0.12	1.80	2.00
PM3316-470M-RC	47	± 20	25	1	12	0.19	1.40	1.60
PM3316-680M-RC	68	± 20	25	1	11	0.24	1.20	1.40
PM3316-101M-RC	100	± 20	30	0.05	8	0.33	1.00	1.20
PM3316-151M-RC	150	± 20	30	0.05	6	0.59	0.80	1.00
PM3316-221M-RC	220	± 20	33	0.05	5	0.78	0.70	0.80
PM3316-331M-RC	330	± 20	33	0.05	4	1.15	0.55	0.60
PM3316-471M-RC	470	± 20	57	0.05	4	1.70	0.45	0.50
PM3316-681M-RC	680	± 20	57	0.05	3	2.60	0.35	0.40
PM3316-102M-RC	1000	± 20	81	0.07	2	3.90	0.30	0.35

Electrical Schematic



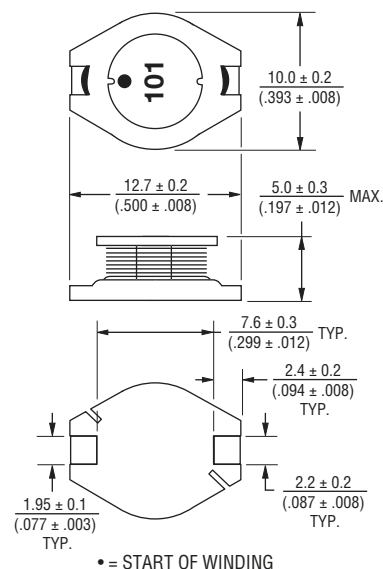
General Specifications

Test Voltage 0.1 V
 Reflow soldering 250 °C; 10 sec max.
 (In compliance with JEDEC,
 J-STD-020C, Table 4-2)
 Operating Temperature
 -55 °C to +125 °C
 (Temperature rise included)
 Storage Temperature .. -55 °C to +125 °C
 Resistance to Soldering Heat
 250 °C, 10 sec. max.
 Moisture Sensitivity Level 2
 ESD Classification (HBM) N/A

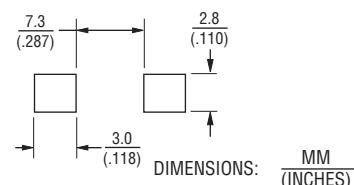
Materials

Core Ferrite DR
 Wire Enameled copper
 Base DAP
 Terminal Cu/Sn
 Rated Current
 Ind. drop 10 % typ. at Isat
 Temperature Rise 15 °C max.
 at rated I rms
 Packaging 500 pcs. per reel

Product Dimensions



Recommended Layout



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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.
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The graph illustrates a thermal cycle with the following parameters:

- Ramp-up:** 4 °C/second maximum.
- Hold:** 120 - 150 seconds at 160 °C.
- Peak:** 250 °C (labeled <1> Max. of 10 seconds at 250 °C).
- Ramp-down:** 5 °C/second maximum (labeled <2> Max. of 30 seconds > 220 °C).

Technical drawing of a 12200 component, showing top, side, and end views with dimensions in mm and inches.

Top View Dimensions:

- Overall Diameter: 330 ± 0.5 (12.99) DIA.
- Inner Hole Diameter: 21.0 ± 0.8 (.827 $\pm$.031)
- Inner Hole Diameter: 13.0 ± 0.5 (.512 $\pm$.020) DIA.

Side View Dimensions:

- Overall Width: 30.4 (1.20)
- Inner Hole Diameter: 13.0 ± 0.5 (.512 $\pm$.020) DIA.
- Distance from Center to Edge: 50.0 (1.969)
- Overall Width: 26 (1.02)

End View Dimensions:

- THICKNESS: 0.10 (.004) MAX.
- EMBOSS CAVITY
- EMBOSS CARRIER

End View Dimensions (Continued):

- Overall Length: 11.5 ± 0.1 (.453 $\pm$.004)
- Distance from END to START: 4.0 ± 0.1 (.157 $\pm$ 0.04)
- Distance from END to START: 16.0 ± 0.1 (.630 $\pm$.004)

End View Dimensions (Continued):

- Overall Length: 24.0 ± 0.3 (.945 $\pm$.012)
- Distance from END to START: 5.3 ± 0.1 (.153 $\pm$.004)
- Distance from END to START: 10.4 ± 0.1 (.409 $\pm$.004)

End View Dimensions (Continued):

- Overall Length: 1.55 ± 0.05 (.061 $\pm$.002) DIA.
- Overall Length: 1.5 MIN. (.059)
- Overall Length: 4.4 ± 0.1 (.173 $\pm$.004)

End View Dimensions (Continued):

- Overall Length: 13.2 ± 0.1 (.520 $\pm$.004)
- Overall Length: 0.4 ± 0.05 (.016 $\pm$.002)

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