



Features

- Formerly J.W. Miller® model
- Available in E6 series
- Low profile of only 6.6 mm
- Inductance as low as 1 μH
- RoHS compliant*

Applications

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

PM5022 Series - SMD Power Inductor

Electrical Specifications

Bourns Part No.	Inductance 100 kHz		Test Q Ref.	SRF Frequency (MHz)	Typ. (MHz)	RDC (m Ω)	I rms Max. (A)	I sat Typ. (A)
	(μH)	Tol. %						
PM5022-1R0M-RC	1.0	± 20	21	7.96	100.0	4.0	10.0	30.00
PM5022-2R2M-RC	2.2	± 20	22	7.96	55.0	6.8	9.00	22.00
PM5022-3R3M-RC	3.3	± 20	22	7.96	40.0	9.8	7.60	17.00
PM5022-5R6M-RC	5.6	± 20	23	7.96	30.0	15.0	6.40	12.80
PM5022-8R2M-RC	8.2	± 20	22	7.96	27.0	20.0	6.00	9.40
PM5022-100M-RC	10	± 20	22	2.52	25.0	25.0	5.30	10.00
PM5022-150M-RC	15	± 20	20	2.52	17.0	35.0	4.30	8.00
PM5022-220M-RC	22	± 20	22	2.52	13.0	45.0	3.60	6.70
PM5022-330M-RC	33	± 20	24	2.52	11.0	68.0	3.00	5.40
PM5022-470M-RC	47	± 20	22	2.52	9.0	95.0	2.50	4.60
PM5022-680M-RC	68	± 20	22	2.52	8.0	130.0	2.10	3.80
PM5022-101<1>-RC	100	± 10	25	0.796	7.0	190.0	1.70	3.20
PM5022-151<1>-RC	150	± 10	23	0.796	5.0	270.0	1.40	2.60
PM5022-221<1>-RC	220	± 10	20	0.796	4.5	420.0	1.10	2.20
PM5022-331<1>-RC	330	± 10	18	0.796	3.5	580.0	1.00	1.80
PM5022-471<1>-RC	470	± 10	15	0.796	3.0	820.0	0.80	1.50
PM5022-681<1>-RC	680	± 10	12	0.796	2.5	1200.0	0.70	1.20
PM5022-102<1>-RC	1000	± 10	10	0.252	2.0	1800.0	0.50	1.00

<1> Enter tolerance code: K = $\pm 10\%$, M = $\pm 20\%$.

Additional Information

Click these links for more information:



Electrical Schematic



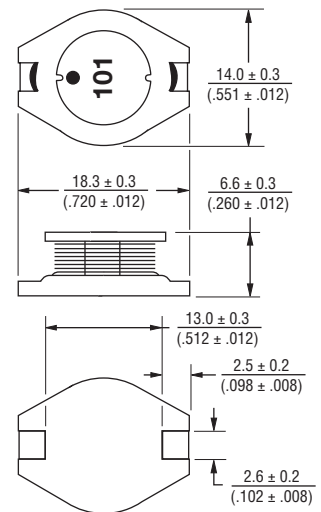
General Specifications

Test Voltage.....0.1 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

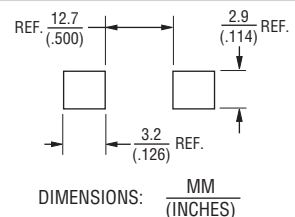
Materials

Core..... Ferrite DR
 Wire..... Enameled copper
 Base..... LCP E4008
 Terminal Finish..... Sn
 Rated Current
 Ind. drop 10 % typ. at Isat
 Temp. Rise..... 40 °C max. at rated I_{rms}
 Packaging..... 250 pcs. per reel

Product Dimensions



Recommended Layout



CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.
 See www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Specifications are subject to change without notice.

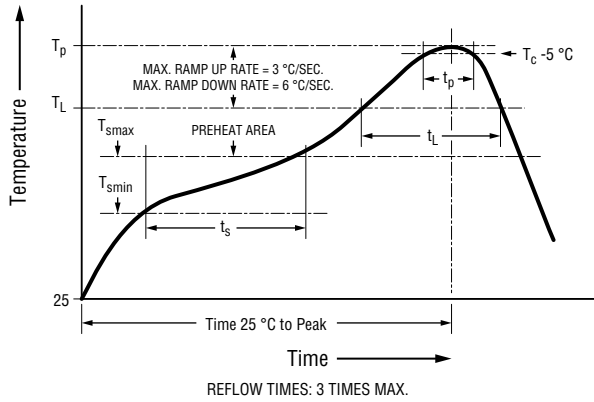
Users should verify actual device performance in their specific applications.

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PM5022 Series - SMD Power Inductor

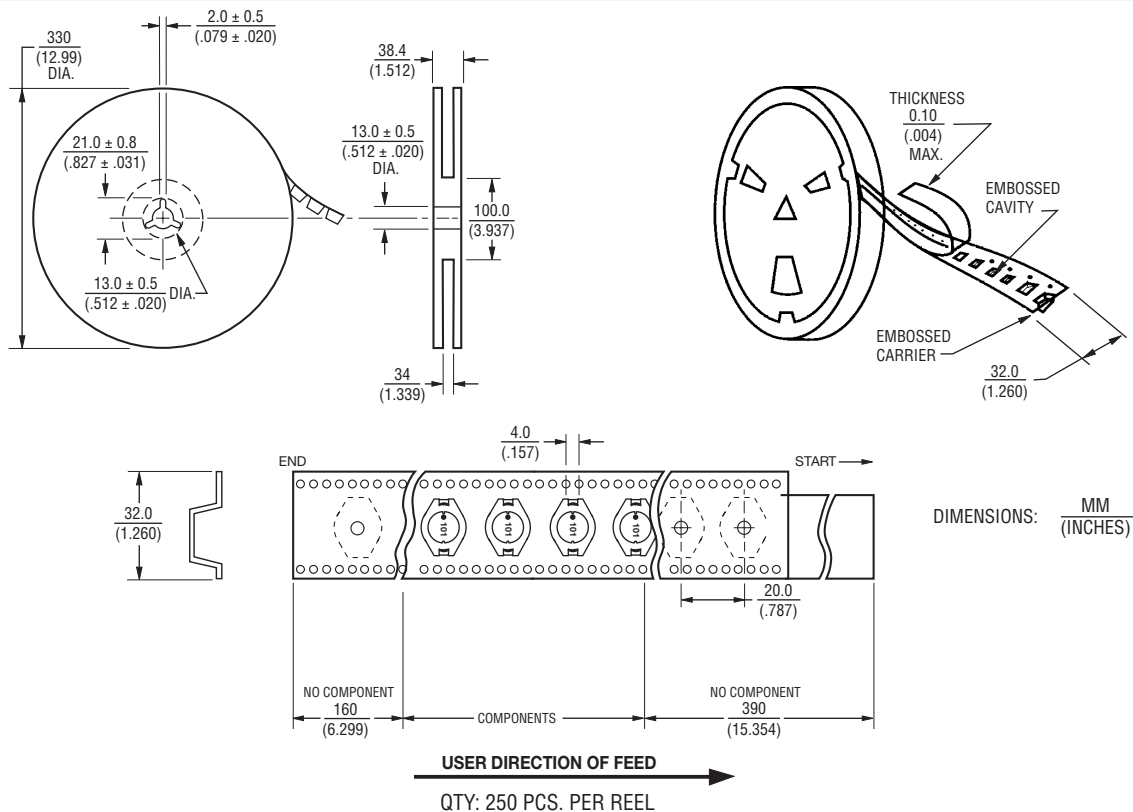
BOURNS®

Soldering Profile



Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> - 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
Classification Temperature (T_c)	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



REV. 03/26

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