



### Features

- Formerly **J. W. Miller**® model
- Available in E12 series
- Height of 2.9 mm
- Current rating up to 2.1 A
- RoHS compliant\*

### Additional Information

Click these links for more information:



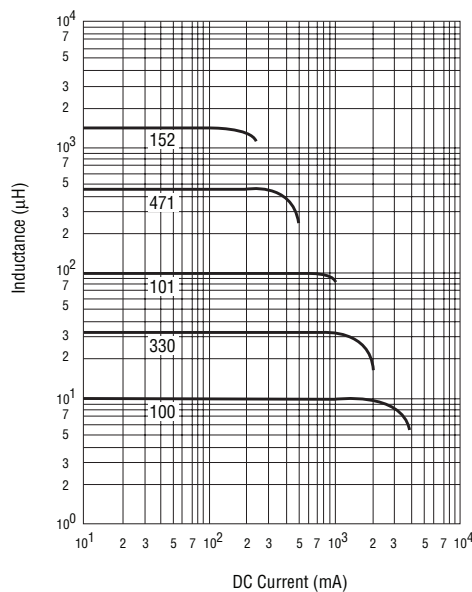
**BOURNS**®

## PM105SB Series - Shielded SMD Power Inductor

### Electrical Specifications

Bourns Part No.	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	DCR Max. (Ω)	Idc (A)
	(μH)	Tol. %					
PM105SB-100M-RC	10	±20	39	2.52	29	0.06	2.1
PM105SB-120M-RC	12	±20	40	2.52	26	0.07	1.9
PM105SB-150M-RC	15	±20	35	2.52	24	0.07	1.7
PM105SB-180M-RC	18	±20	39	2.52	21	0.08	1.6
PM105SB-220M-RC	22	±20	35	2.52	18	0.08	1.4
PM105SB-270M-RC	27	±20	35	2.52	17	0.10	1.3
PM105SB-330L-RC	33	±15	27	2.52	14	0.11	1.2
PM105SB-390L-RC	39	±15	31	2.52	14	0.12	1.1
PM105SB-470L-RC	47	±15	27	2.52	11	0.14	1.0
PM105SB-560L-RC	56	±15	26	2.52	11	0.19	0.93
PM105SB-680L-RC	68	±15	26	2.52	10	0.21	0.85
PM105SB-820L-RC	82	±15	26	2.52	9	0.28	0.79
PM105SB-101K-RC	100	±10	29	1 V / 1 K	8	0.34	0.72
PM105SB-121K-RC	120	±10	31	1 V / 1 K	7	0.37	0.63
PM105SB-151K-RC	150	±10	24	1 V / 1 K	6	0.51	0.55
PM105SB-181K-RC	180	±10	24	1 V / 1 K	5	0.57	0.50
PM105SB-221K-RC	220	±10	27	1 V / 1 K	5	0.78	0.47
PM105SB-271K-RC	270	±10	30	1 V / 1 K	5	0.87	0.41
PM105SB-331K-RC	330	±10	29	1 V / 1 K	4	1.20	0.37
PM105SB-391K-RC	390	±10	26	1 V / 1 K	3	1.34	0.35
PM105SB-471K-RC	470	±10	26	1 V / 1 K	3	1.50	0.33

### Inductance vs. Current



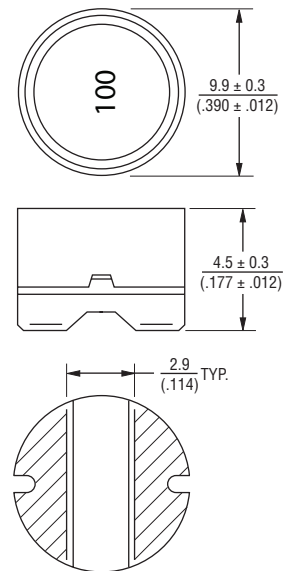
### General Specifications

Test Voltage ..... 1 Volt  
 Operating Temp..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .. -40 °C to +125 °C  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM)..... N/A

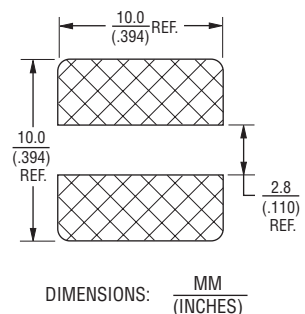
### Materials

Core Material ..... Ferrite DR & RI  
 Wire ..... Enameled Copper  
 Terminal ..... SnAgCu  
 Rated Current ..... Ind. drop 10 % typ.  
 Temperature Rise ..... 15 °C typ.  
 Packaging ..... 500 pcs. per reel

### Product Dimensions



### Recommended Layout



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

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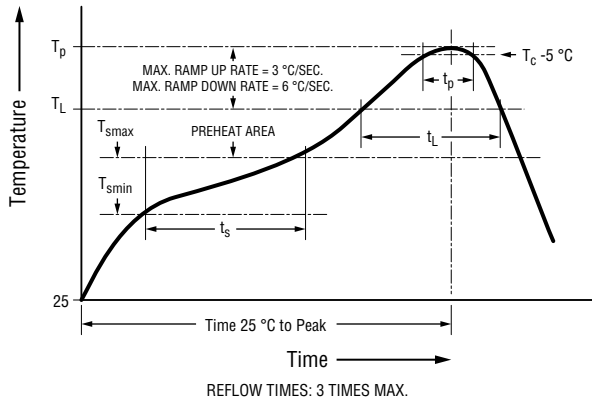
## Applications

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

# PM105SB Series - Shielded SMD Power Inductor

# BOURNS®

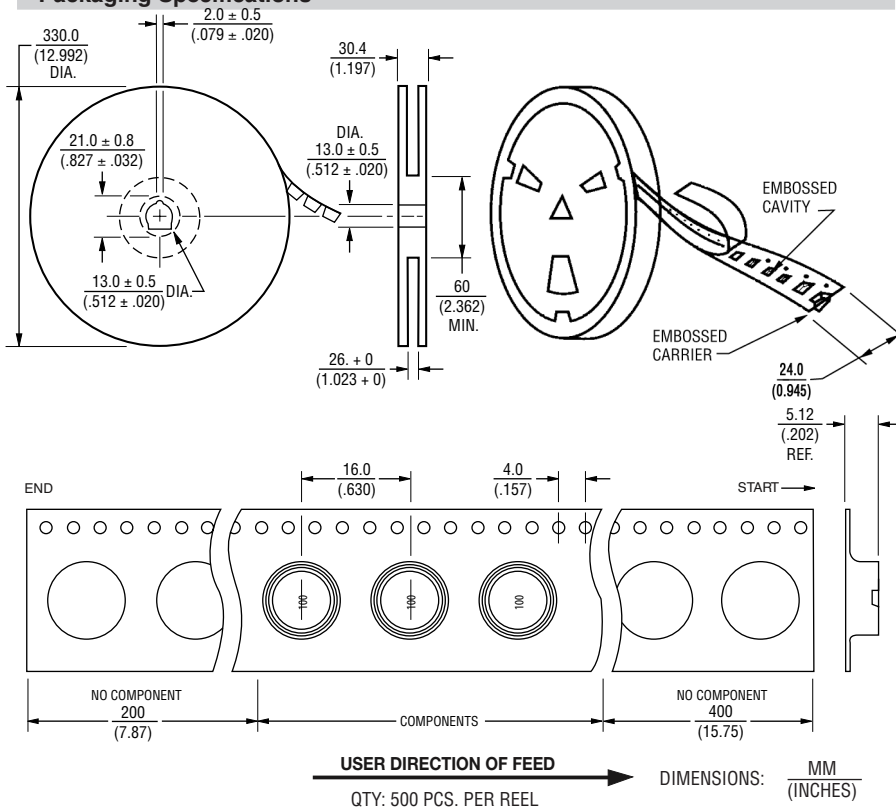
## Soldering Profile



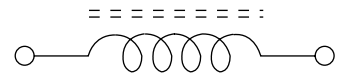
Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> <li>- Temperature Min. (<math>T_{smin}</math>)</li> <li>- Temperature Max. (<math>T_{smax}</math>)</li> <li>- Time (<math>t_s</math>) from <math>T_{smin}</math> to <math>T_{smax}</math></li> </ul>	150 °C 200 °C 60-120 seconds
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.

Refer to IPC/JEDEC J-STD-020E.

## Packaging Specifications



## Electrical Schematic



REV. 03/26

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