

**BOURNS®**

## Features

- Formerly J. W. Miller® model
- Height of 2.0 mm
- Current rating up to 2.7 A
- RoHS compliant

## Applications

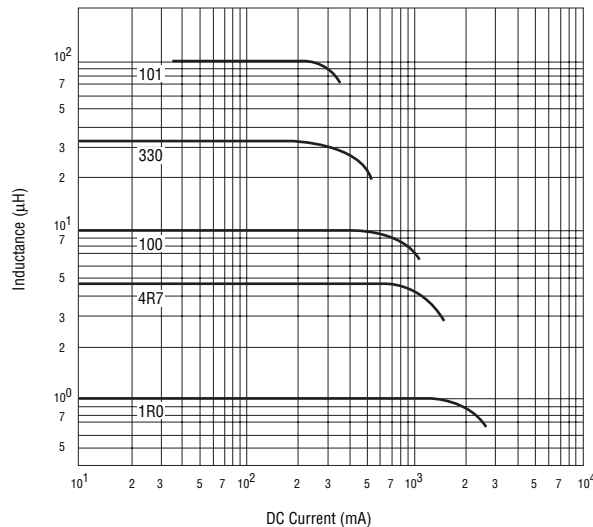
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs
  - Car radios

# PM42S Series - Shielded SMD Power Inductors

## Electrical Specifications

Bourns Part No.	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	DCR Max. (mΩ)	I rms (A)	I sat (A)
	(μH)	Tol. %						
PM42S-1R0-RC	1.0	±30	9	7.960	219	35	2.70	2.60
PM42S-2R2-RC	2.2	±30	8	7.960	90	55	2.10	2.10
PM42S-2R7-RC	2.7	±30	8	7.960	78	60	2.03	1.95
PM42S-3R3-RC	3.3	±30	8	7.960	61	65	1.95	1.80
PM42S-3R9-RC	3.9	±30	8	7.960	60	75	1.82	1.65
PM42S-4R7-RC	4.7	±30	8	7.960	55	82	1.72	1.50
PM42S-5R6-RC	5.6	±30	7	7.960	57	90	1.64	1.25
PM42S-6R8-RC	6.8	±30	8	7.960	49	100	1.50	1.15
PM42S-8R2-RC	8.2	±30	7	7.960	40	135	1.40	1.10
PM42S-100-RC	10	±30	10	2.520	38	150	1.30	1.00
PM42S-120-RC	12	±30	9	2.520	32	170	1.15	0.90
PM42S-150-RC	15	±30	8	2.520	30	220	1.03	0.82
PM42S-180-RC	18	±30	7	2.520	30	280	0.92	0.75
PM42S-220-RC	22	±30	7	2.520	29	300	0.88	0.65
PM42S-270-RC	27	±30	7	2.520	23	370	0.77	0.60
PM42S-330-RC	33	±30	7	2.520	21	420	0.73	0.50
PM42S-390-RC	39	±30	8	2.520	19	540	0.64	0.48
PM42S-470-RC	47	±30	8	2.520	20	600	0.62	0.45
PM42S-560-RC	56	±30	8	2.520	15	820	0.52	0.40
PM42S-680-RC	68	±30	7	2.520	13	860	0.50	0.38
PM42S-820-RC	82	±30	8	2.520	13	1200	0.43	0.32
PM42S-101-RC	100	±30	10	0.796	12	1350	0.40	0.30
PM42S-121-RC	120	±30	11	0.796	10	1950	0.33	0.28
PM42S-151-RC	150	±30	14	0.796	10	2600	0.28	0.26
PM42S-181-RC	180	±30	10	0.796	10	4000	0.18	0.25

## Inductance vs. Current



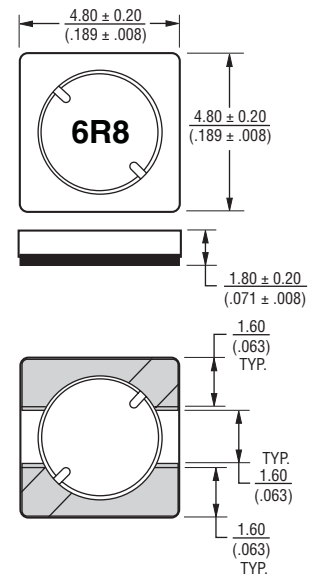
## General Specifications

Test Voltage ..... 0.1 V, 100 KHz  
 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 10 sec.

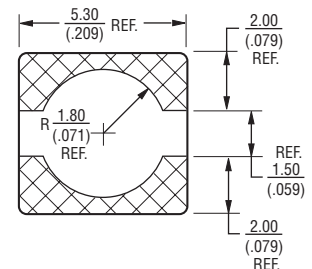
## Materials

Core Material ..... Ferrite  
 Wire ..... Enameled Copper  
 Adhesive ..... Epoxy Resin  
 Terminal ..... Ag/Ni/Sn  
 Rated Current ..... Ind. drop of 35 % typ.  
 at Isat  
 Temperature Rise ..... 30 °C typ. at I rms  
 Packaging ..... 1000 pcs. per reel

## Product Dimensions



## Recommended Layout



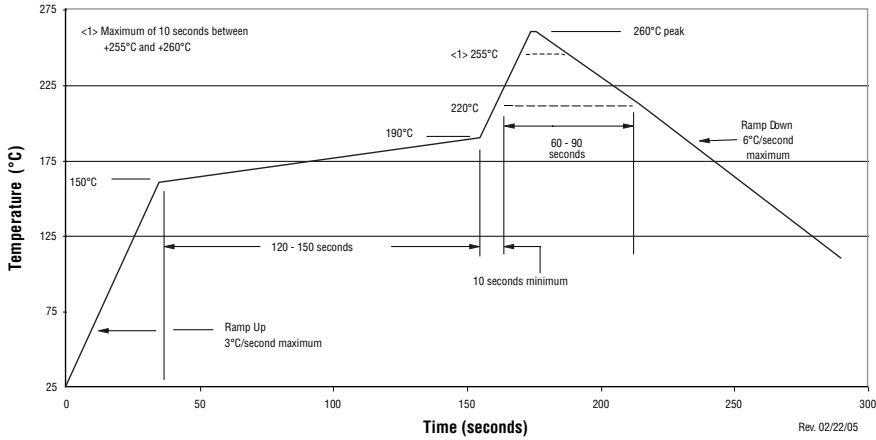
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

\*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. Customers should verify actual device performance in their specific applications.

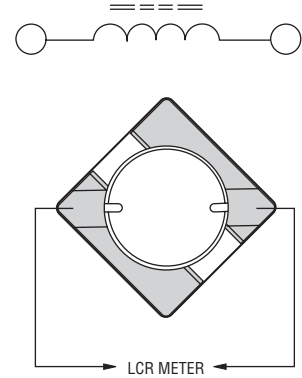
# PM42S Series - Shielded SMD Power Inductors

**BOURNS®**

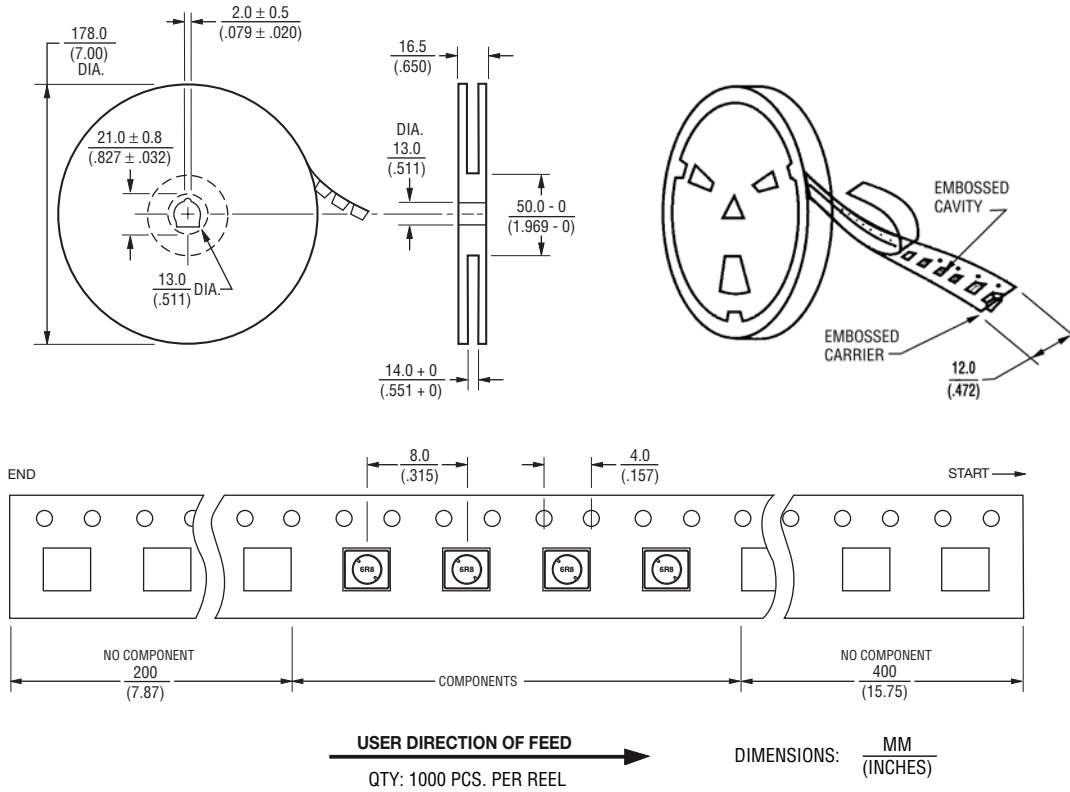
## Soldering Profile



## Electrical Schematic



## Packaging Specifications



REV. 05/09

Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.