



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



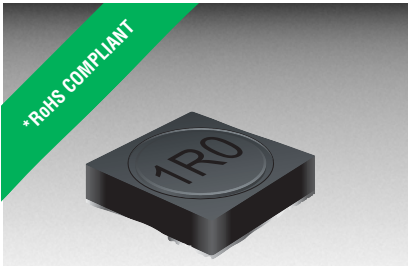
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BOURNS®

Features

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

Applications

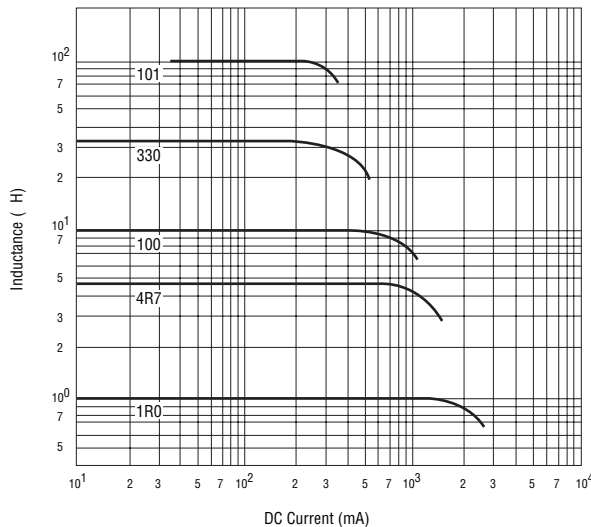
- Input/output of DC/DC converters
- Power supplies for:
 - Portable communication equipment
 - Camcorders
 - LCD TVs
 - Car radios

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



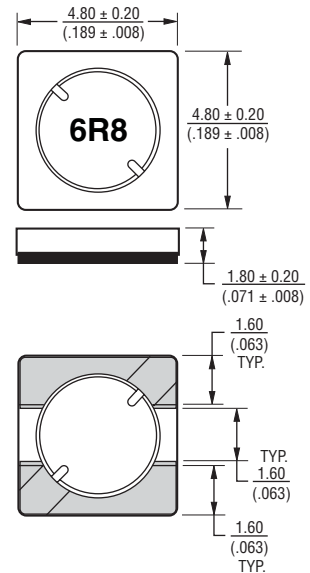
General Specifications

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.

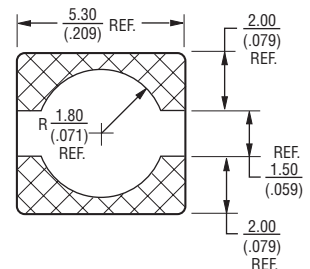
Materials

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



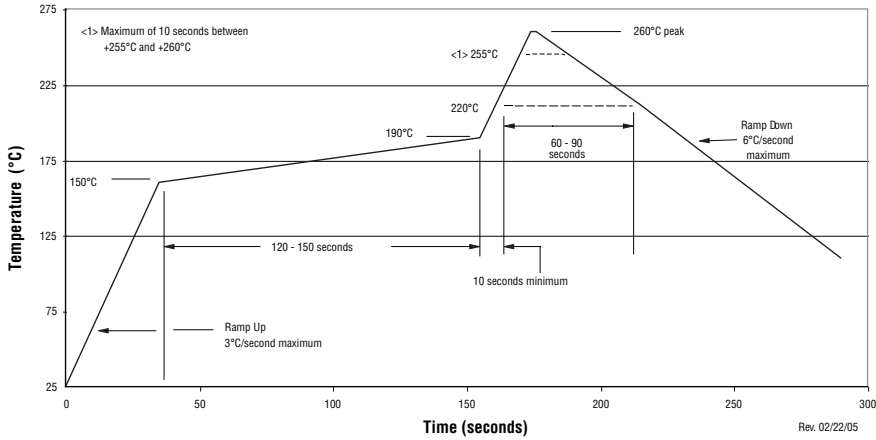
DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

*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.

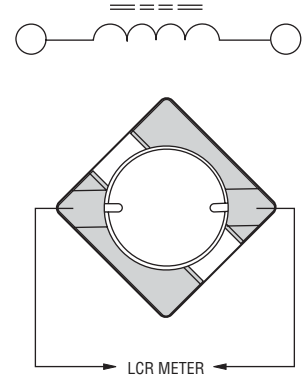
PM42S Series - Shielded SMD Power Inductors

BOURNS®

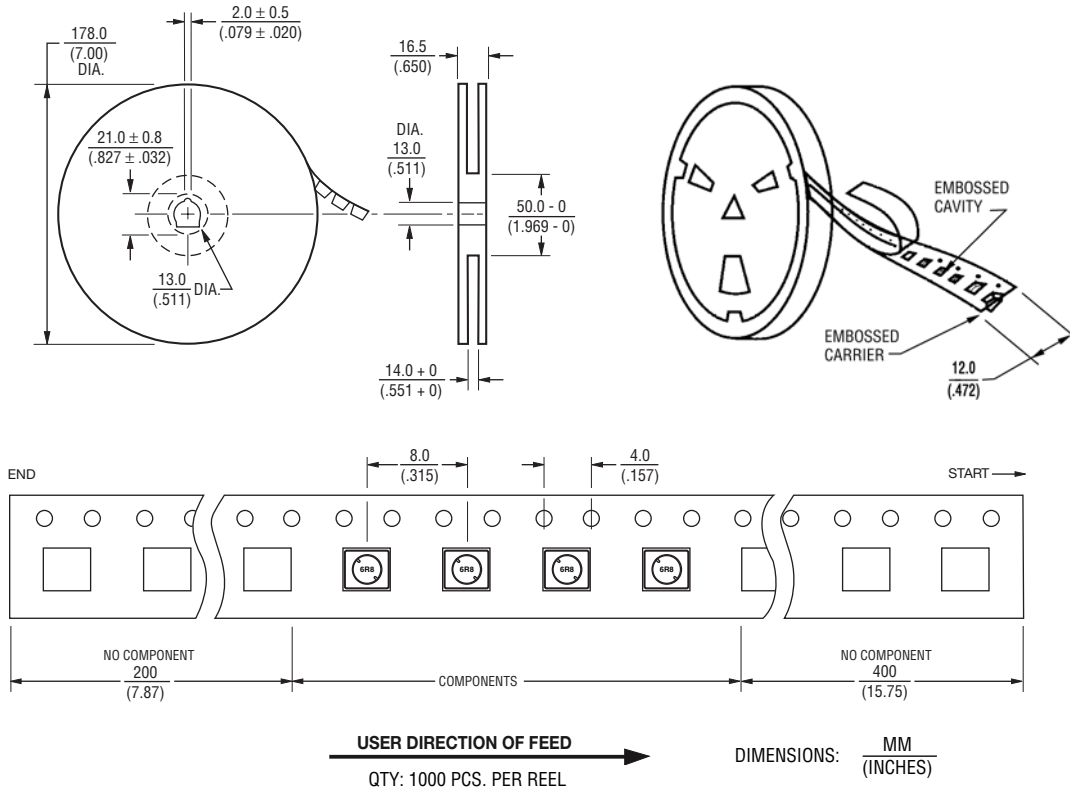
Soldering Profile



Electrical Schematic



Packaging Specifications



REV. 05/09

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