



## Features

- Formerly *J.W. Miller* model
- Height of 5.4 mm max.
- Current rating up to 2.65 A
- RoHS compliant\*

## Applications

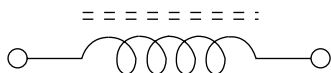
- Input/output of DC/DC converters
- Industrial electronics
- Power supplies for:
  - Portable communications equipment
  - Camcorders
  - LCD TVs
  - Car radios

## PM125S Series - Shielded SMD Power Inductors

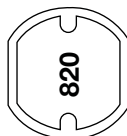
### Electrical Specifications

| Bourns Part No. | Inductance 100 kHz |          | Test Frequency (MHz) | SRF MHz Typ. | DCR Max. (mΩ) | Idc (A) | Isat (A) |
|-----------------|--------------------|----------|----------------------|--------------|---------------|---------|----------|
|                 | (μH)               | Tol. (%) |                      |              |               |         |          |
| PM125S-100M-RC  | 10                 | ±20      | 2.52                 | 24           | 50            | 2.65    | 4.43     |
| PM125S-120M-RC  | 12                 | ±20      | 2.52                 | 21           | 50            | 2.50    | 5.31     |
| PM125S-150M-RC  | 15                 | ±20      | 2.52                 | 19           | 60            | 2.45    | 3.68     |
| PM125S-180M-RC  | 18                 | ±20      | 2.52                 | 16           | 60            | 2.40    | 4.32     |
| PM125S-220M-RC  | 22                 | ±20      | 2.52                 | 15           | 70            | 2.20    | 4.04     |
| PM125S-270M-RC  | 27                 | ±20      | 2.52                 | 14           | 80            | 2.00    | 3.62     |
| PM125S-330M-RC  | 33                 | ±20      | 2.52                 | 13           | 100           | 1.80    | 3.00     |
| PM125S-390M-RC  | 39                 | ±20      | 2.52                 | 12           | 110           | 1.65    | 3.00     |
| PM125S-470M-RC  | 47                 | ±20      | 2.52                 | 10           | 120           | 1.50    | 1.78     |
| PM125S-560M-RC  | 56                 | ±20      | 2.52                 | 9            | 150           | 1.38    | 1.90     |
| PM125S-680M-RC  | 68                 | ±20      | 2.52                 | 9            | 170           | 1.26    | 2.08     |
| PM125S-820M-RC  | 82                 | ±20      | 2.52                 | 8            | 200           | 1.14    | 1.82     |
| PM125S-101M-RC  | 100                | ±20      | 1.00                 | 7            | 250           | 1.05    | 1.19     |
| PM125S-121M-RC  | 120                | ±20      | 1.00                 | 6            | 280           | 0.95    | 0.95     |
| PM125S-151M-RC  | 150                | ±20      | 1.00                 | 6            | 400           | 0.85    | 1.18     |
| PM125S-181M-RC  | 180                | ±20      | 1.00                 | 5            | 480           | 0.77    | 1.07     |
| PM125S-221M-RC  | 220                | ±20      | 1.00                 | 5            | 520           | 0.70    | 0.95     |
| PM125S-271M-RC  | 270                | ±20      | 1.00                 | 4            | 700           | 0.63    | 1.07     |
| PM125S-331M-RC  | 330                | ±20      | 1.00                 | 4            | 800           | 0.57    | 0.78     |
| PM125S-391M-RC  | 390                | ±20      | 1.00                 | 4            | 1080          | 0.52    | 0.91     |
| PM125S-471M-RC  | 470                | ±20      | 1.00                 | 3            | 1200          | 0.48    | 0.87     |
| PM125S-561M-RC  | 560                | ±20      | 1.00                 | 3            | 1340          | 0.44    | 0.74     |
| PM125S-681M-RC  | 680                | ±20      | 1.00                 | 3            | 1780          | 0.40    | 0.74     |
| PM125S-821M-RC  | 820                | ±20      | 1.00                 | 2            | 2000          | 0.36    | 0.26     |

### Electrical Schematic



### Typical Part Marking



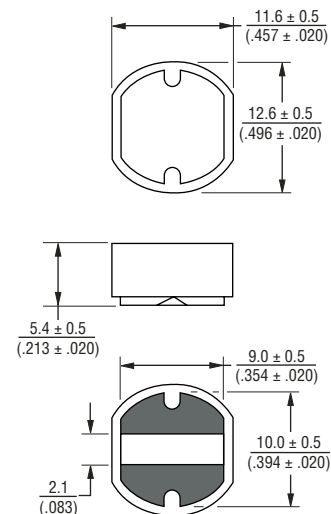
### General Specifications

Test Voltage.....0.1 V  
 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, 10 sec. max.

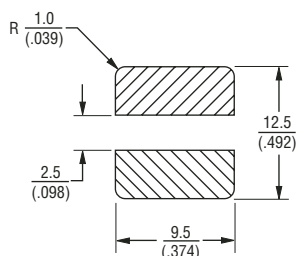
### Materials

Core.....Ferrite  
 Wire.....Enameled copper  
 Adhesive.....Epoxy resin  
 Terminal.....Sn/Ni/Ag  
 Rated Current  
 .....Ind. drop 10 % typ. at Isat  
 Temperature Rise  
 .....40 °C typical at Idc  
 Packaging.....500 pcs. per reel

### Product Dimensions



### Recommended Layout



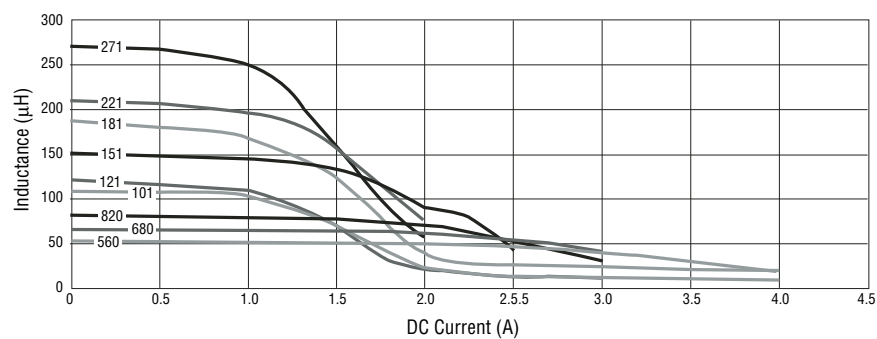
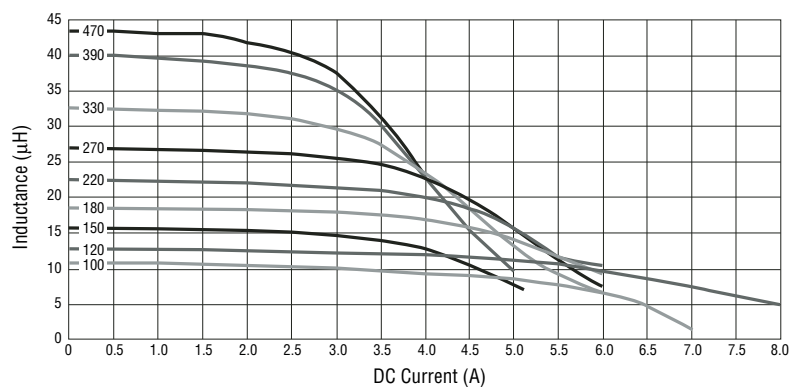
DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

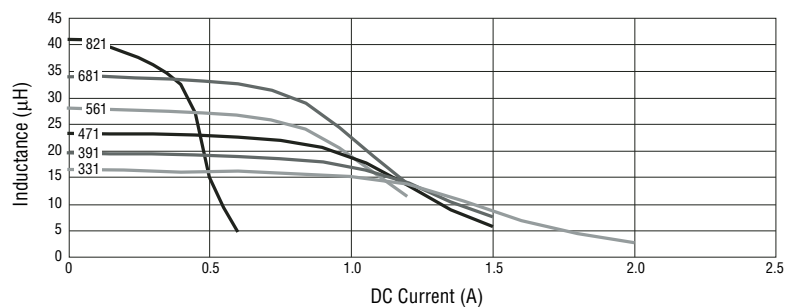
# PM125S Series - Shielded SMD Power Inductors

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## Inductance vs. Current



## L vs. I



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## Packaging Specifications

