



## Features

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

## Applications

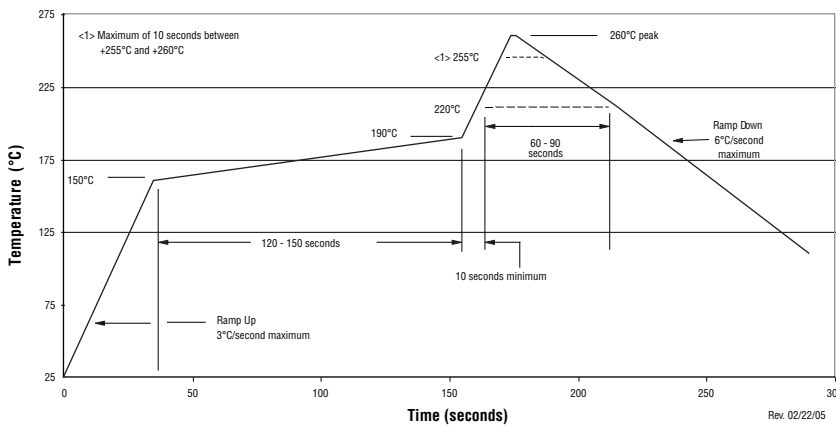
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs
  - Car radios

# PM518S 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 <sub>rms</sub> (A) | I <sub>sat</sub> (A) |
|-----------------|--------------------|--------|--------|----------------------|----------------|---------------|----------------------|----------------------|
|                 | (μH)               | Tol. % |        |                      |                |               |                      |                      |
| PM518S-4R1-RC   | 4.1                | ±30    | 8      | 7.96                 | 60             | 55            | 2.00                 | 2.10                 |
| PM518S-5R4-RC   | 5.4                | ±30    | 7.4    | 7.96                 | 58             | 76            | 1.65                 | 1.65                 |
| PM518S-6R2-RC   | 6.2                | ±30    | 7.5    | 7.96                 | 51             | 80            | 1.45                 | 1.60                 |
| PM518S-8R9-RC   | 8.9                | ±30    | 7.3    | 7.96                 | 40             | 116           | 1.25                 | 1.25                 |
| PM518S-100-RC   | 10                 | ±30    | 11     | 2.52                 | 41             | 130           | 1.10                 | 1.25                 |
| PM518S-120-RC   | 12                 | ±30    | 8.6    | 2.52                 | 39             | 160           | 1.00                 | 1.15                 |
| PM518S-150-RC   | 15                 | ±30    | 12.7   | 2.52                 | 32             | 190           | 0.95                 | 1.10                 |
| PM518S-180-RC   | 18                 | ±30    | 8.8    | 2.52                 | 29             | 210           | 0.90                 | 1.00                 |
| PM518S-220-RC   | 22                 | ±30    | 14.7   | 2.52                 | 22             | 280           | 0.80                 | 0.90                 |
| PM518S-270-RC   | 27                 | ±30    | 10.2   | 2.52                 | 21             | 320           | 0.75                 | 0.80                 |
| PM518S-330-RC   | 33                 | ±30    | 10.9   | 2.52                 | 20             | 350           | 0.65                 | 0.70                 |
| PM518S-390-RC   | 39                 | ±30    | 10.6   | 2.52                 | 17             | 500           | 0.55                 | 0.65                 |
| PM518S-470-RC   | 47                 | ±30    | 8.9    | 2.52                 | 14             | 550           | 0.52                 | 0.60                 |
| PM518S-560-RC   | 56                 | ±30    | 8.9    | 2.52                 | 13             | 600           | 0.48                 | 0.55                 |
| PM518S-680-RC   | 68                 | ±30    | 9.9    | 2.52                 | 12             | 850           | 0.40                 | 0.50                 |
| PM518S-820-RC   | 82                 | ±30    | 9.1    | 2.52                 | 11             | 950           | 0.38                 | 0.45                 |
| PM518S-101-RC   | 100                | ±30    | 13.1   | 0.796                | 10             | 1100          | 0.35                 | 0.42                 |

## Soldering Profile



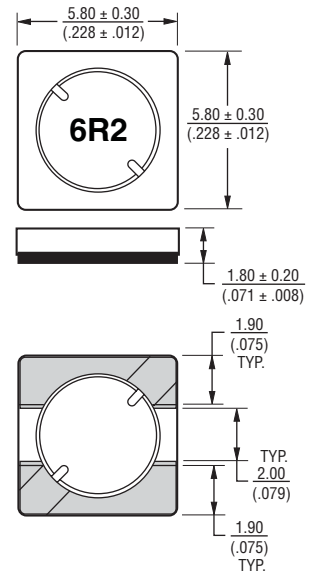
## General Specifications

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.

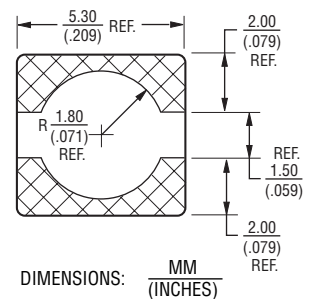
## Materials

Core Material ..... Ferrite  
 Wire ..... Enameled Copper  
 Adhesive ..... Epoxy Resin  
 Terminal ..... Ag/Ni/Sn  
 Rated Current ..... Ind. drop of 35 % typ.  
 at I<sub>sat</sub>  
 Temperature Rise ..... 40 °C typ. at I<sub>rms</sub>  
 Packaging ..... 2000 pcs. per reel

## Product Dimensions



## Recommended Layout



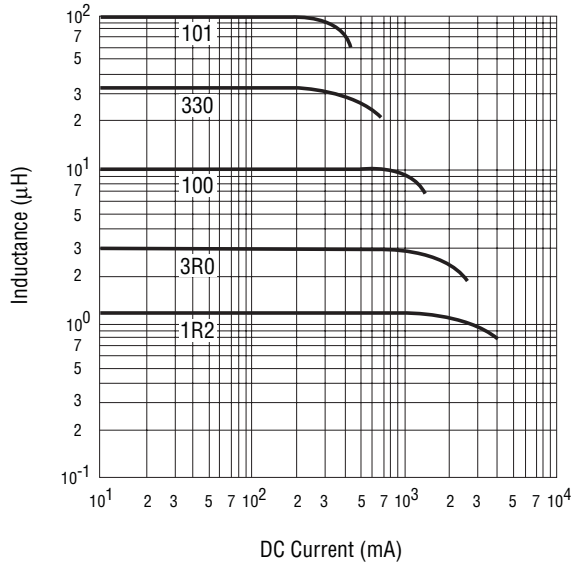
DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$

\*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.

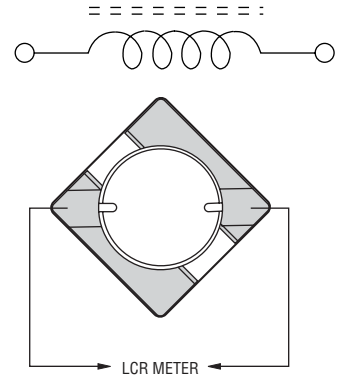
# PM518S Series - Shielded SMD Power Inductors

**BOURNS®**

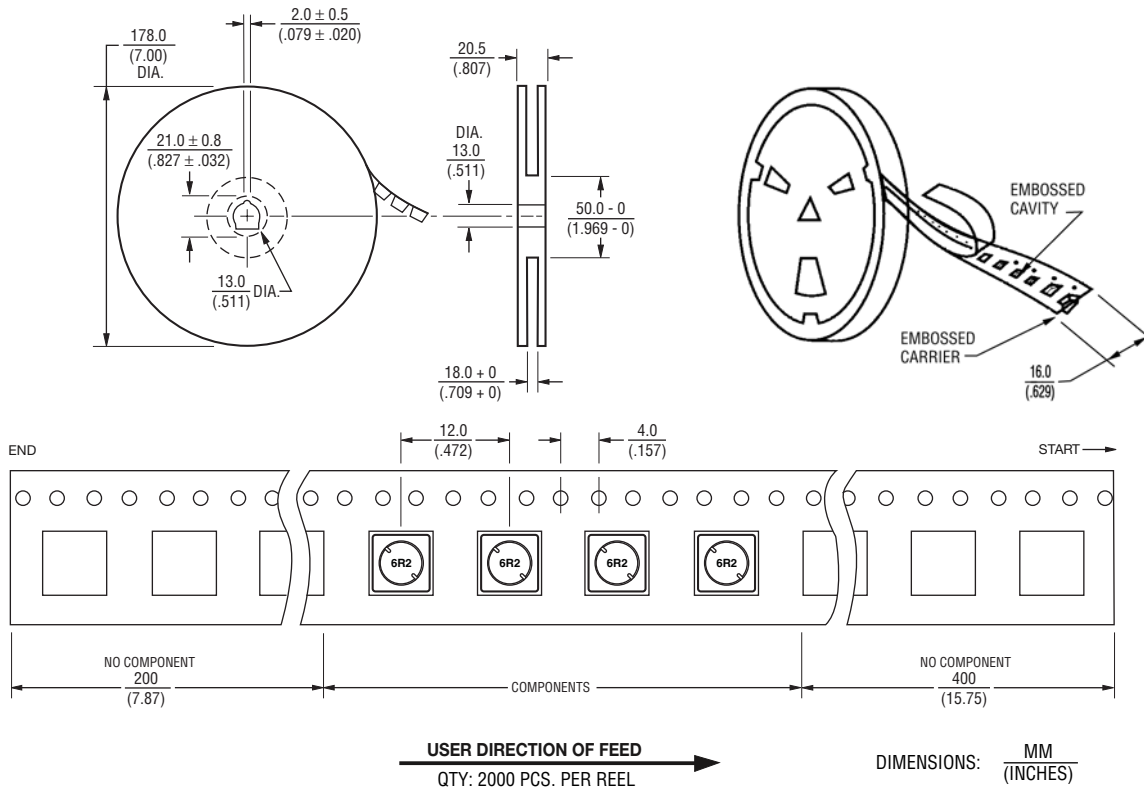
## Inductance vs. Current



## Electrical Schematic



## Packaging Specifications



REV. 05/09

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