

#### **Features**

- Formerly J. W. Miller® model
- Height of 3.0 mm max.
- Current rating up to 3.1 A
- RoHS compliant\*

# **Applications**

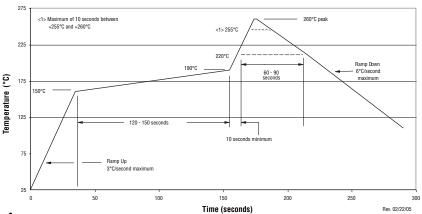
- Input/output of DC/DC converters
- Power supplies for:
  - · Portable communication equipment
  - · Camcorders
  - LCD TVs

# PM428S Series - Shielded SMD Power Inductor

#### **Electrical Specifications**

Bourns Part No.         (μH)         Tol. %         Ref.         (MHz)         (MHz)         (mΩ)         (A)           PM428S-1R2-RC         1.2         ±30         9.34         7.96         176         20         3.10           PM428S-1R8-RC         1.8         ±30         9.18         7.96         146         25         2.70           PM428S-2R2-RC         2.2         ±30         9.24         7.96         111         28         2.50           PM428S-2R7-RC         2.7         ±30         8.64         7.96         92         30         2.35           PM428S-3R3-RC         3.3         ±30         7.72         7.96         76         35         2.15           PM428S-3R9-RC         3.9         ±30         8.58         7.96         56         60         1.72           PM428S-4R7-RC         4.7         ±30         8.12         7.96         55         70         1.55           PM428S-6R8-RC         5.6         ±30         9.56         7.96         69         85         1.38           PM428S-8R2-RC         8.2         ±30         8.24         7.96         77         90         1.30           PM428S-100-RC         <	(A) 2.56 2.20 2.05
PM428S-1R8-RC         1.8         ±30         9.18         7.96         146         25         2.70           PM428S-2R2-RC         2.2         ±30         9.24         7.96         111         28         2.50           PM428S-2R7-RC         2.7         ±30         8.64         7.96         92         30         2.35           PM428S-3R3-RC         3.3         ±30         7.72         7.96         76         35         2.15           PM428S-3R9-RC         3.9         ±30         8.58         7.96         56         60         1.72           PM428S-4R7-RC         4.7         ±30         8.12         7.96         55         70         1.55           PM428S-5R6-RC         5.6         ±30         9.56         7.96         69         85         1.38           PM428S-6R8-RC         6.8         ±30         9.624         7.96         77         90         1.30           PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-150-RC         15	2.20
PM428S-2R2-RC         2.2         ±30         9.24         7.96         111         28         2.50           PM428S-2R7-RC         2.7         ±30         8.64         7.96         92         30         2.35           PM428S-3R3-RC         3.3         ±30         7.72         7.96         76         35         2.15           PM428S-3R9-RC         3.9         ±30         8.58         7.96         56         60         1.72           PM428S-4R7-RC         4.7         ±30         8.12         7.96         55         70         1.55           PM428S-5R6-RC         5.6         ±30         9.56         7.96         69         85         1.38           PM428S-6R8-RC         6.8         ±30         9.624         7.96         77         90         1.30           PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-150-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-180-RC         18	
PM428S-2R7-RC         2.7         ±30         8.64         7.96         92         30         2.35           PM428S-3R3-RC         3.3         ±30         7.72         7.96         76         35         2.15           PM428S-3R9-RC         3.9         ±30         8.58         7.96         56         60         1.72           PM428S-4R7-RC         4.7         ±30         8.12         7.96         55         70         1.55           PM428S-5R6-RC         5.6         ±30         9.56         7.96         69         85         1.38           PM428S-6R8-RC         6.8         ±30         9.624         7.96         77         90         1.30           PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-180-RC         18         ±30         9.66         2.52         27         150         1.03           PM428S-220-RC         22	2.05
PM428S-3R3-RC         3.3         ±30         7.72         7.96         76         35         2.15           PM428S-3R9-RC         3.9         ±30         8.58         7.96         56         60         1.72           PM428S-4R7-RC         4.7         ±30         8.12         7.96         55         70         1.55           PM428S-5R6-RC         5.6         ±30         9.56         7.96         69         85         1.38           PM428S-6R8-RC         6.8         ±30         9.624         7.96         77         90         1.30           PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-220-RC         22	
PM428S-3R9-RC         3.9         ±30         8.58         7.96         56         60         1.72           PM428S-4R7-RC         4.7         ±30         8.12         7.96         55         70         1.55           PM428S-5R6-RC         5.6         ±30         9.56         7.96         69         85         1.38           PM428S-6R8-RC         6.8         ±30         9.624         7.96         77         90         1.30           PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-20-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-330-RC         23	1.80
PM428S-4R7-RC         4.7         ±30         8.12         7.96         55         70         1.55           PM428S-5R6-RC         5.6         ±30         9.56         7.96         69         85         1.38           PM428S-6R8-RC         6.8         ±30         9.624         7.96         77         90         1.30           PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-20-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         39	1.65
PM428S-5R6-RC         5.6         ±30         9.56         7.96         69         85         1.38           PM428S-6R8-RC         6.8         ±30         9.624         7.96         77         90         1.30           PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-220-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-470-RC         47	1.50
PM428S-6R8-RC         6.8         ±30         9.624         7.96         77         90         1.30           PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-220-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-370-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47	1.30
PM428S-8R2-RC         8.2         ±30         8.24         7.96         45         100         1.25           PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-220-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	1.20
PM428S-100-RC         10         ±30         11.26         2.52         34         110         1.19           PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-220-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	1.15
PM428S-120-RC         12         ±30         11.26         2.52         25         125         1.12           PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-220-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	1.05
PM428S-150-RC         15         ±30         9.66         2.52         27         150         1.03           PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-220-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	1.00
PM428S-180-RC         18         ±30         11.64         2.52         25         160         0.98           PM428S-220-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	0.85
PM428S-220-RC         22         ±30         8.26         2.52         23         185         0.93           PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	0.78
PM428S-270-RC         27         ±30         10.76         2.52         18         200         0.89           PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	0.75
PM428S-330-RC         33         ±30         9.7         2.52         16         230         0.82           PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	0.72
PM428S-390-RC         39         ±30         9.74         2.52         14         250         0.80           PM428S-470-RC         47         ±30         10.88         2.52         13         280         0.75	0.60
PM428S-470-RC 47 ±30 10.88 2.52 13 280 0.75	0.58
	0.50
PM428S-560-RC 56 ±30 9 2.52 13 320 0.70	0.48
	0.41
PM428S-680-RC 68 ±30 8.42 2.52 11 400 0.63	0.36
PM428S-820-RC 82 ±30 8.6 2.52 8 520 0.56	0.32
PM428S-101-RC 100 ±30 8.78 0.796 9 600 0.51	0.30
PM428S-121-RC 120 ±30 13.32 0.796 8 700 0.47	0.28
PM428S-151-RC 150 ±30 11.72 0.796 6 860 0.42	
PM428S-181-RC 180 ±30 13.86 0.796 7 1000 0.39	0.26

#### **Soldering Profile**





## WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

\*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. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at <a href="https://www.bourns.com/docs/legal/disclaimer.pdf">www.bourns.com/docs/legal/disclaimer.pdf</a>

#### **General Specifications**

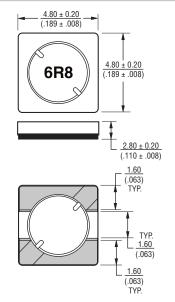
Storage Temperature .. -40 °C to +125 °C Resistance to Soldering Heat

#### **Materials**

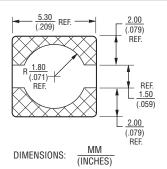
Core Material Ferrite
Wire Enameled Copper
Adhesive Epoxy Resin
Terminal Ag/Ni/Sn
Rated Current Ind. drop of 35 % typ.
at Isat

Temperature Rise ...... 30 °C typ. at Irms Packaging ...... 2000 pcs. per reel

### **Product Dimensions**

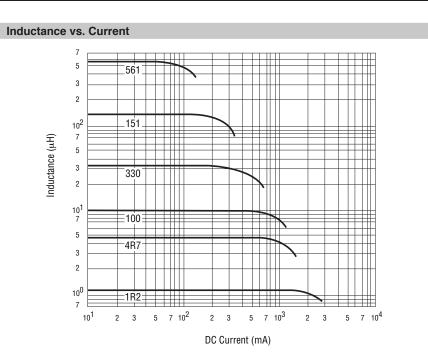


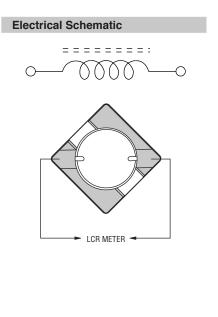
## **Recommended Layout**



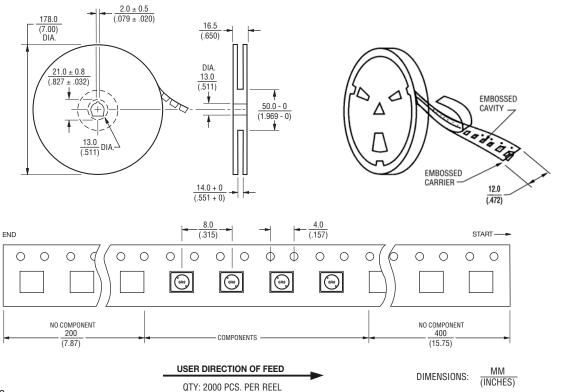
# PM428S Series - Shielded SMD Power Inductor

# **BOURNS**®





## **Packaging Specifications**



REV. 03/18

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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