

Features

- Formerly J. W. Miller[®] models
- Shielded construction
- Unit height of 5.9 mm
- Inductance range: 0.22 µH to 10 µH
- Current up to 45 A
- RoHS compliant*

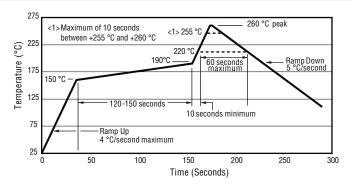


PM12645S, PM12651S, PM13560S, PM13656S, PM13666S Series -**Shielded Power Inductors**

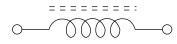
Electrical Specifications

Bourns Part No.	Inductance L (µH) ±20 %	l rms (A)	l sat (A)	DCR (mΩ) max.
PM12645S-1R2M-RC	1.20	27	49	3.3
PM12645S-1R8M-RC	1.80	21	40	4.7
PM12645S-2R7M-RC	2.70	17	32	7.3
PM12651S-R50M-RC	0.50	36	55	1.5
PM12651S-4R7M-RC	4.70	12	27	15.0
PM12651S-9R0M-RC	9.00	10	18	22.5
PM13560S-6R0M-RC	6.00	9.5	14	10.0
PM13560S-100M-RC	10.0	9	16	25.5
PM13656S-R22M-RC	0.22	45	80	1.0
PM13656S-R50M-RC	0.50	36	55	1.5
PM13666S-1R0M-RC	1.00	29	50	2.5

Soldering Profile



Electrical Schematic



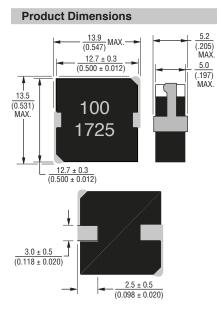
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* 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 www.bourns.com/docs/legal/disclaimer.pdf

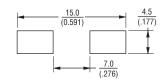
General Specifications

Test Voltage
Test Frequency 100 KHz Reflow Soldering230 °C; 50 sec max.
Operating Temperature
-55 °C to +150 °C
(Temperature rise included)
Storage Temperature
Resistance to Soldering Heat
+260 °C for 10 sec.
Moisture Sensitivity Level1
ESD Classification (HBM)N/A
Materials
materials
CoreIron WireEnameled copper

CoreIron
Wire Enameled copper
TerminalCu/Sn
Rated Current Ind. drops 20 % at I sat
Temperature Rise 40 °C at rated I rms
Packaging 500 pcs. per 13-inch reel



Recommended Layout





Applications

Input/output of DC/DC converters

- Power supplies for:
 - Portable communications equipment
 - Camcorders
 - LCD TVs

PM12645S, PM12651S, PM13560S, PM13656S, PM13666S Series - **BOURNS**[®]

L vs. I Charts PM12645S-2R7M-RC PM12645S-1R2M-RC PM12645S-1R8M-RC 1.6 60 160 2.4 4.0 140 120 Temperature Rise (°C) Temperature Rise (°C) Temperature Rise (°C) 2.0 3.2 Inductance (µH) Inductance (µH) 20 20 Inductance (µH) 1. 100 1.5 2.4 80 0.8 80 1.2 80 60 1.6 0.8 40 0.4 40 40 0.8 0.4 20 0 0 40 50 24 32 24 32 10 30 0 8 16 40 0 8 16 DC Current (A) DC Current (A) DC Current (A) PM12651S-R50M-RC PM12651S-9R0M-RC PM12651S-4R7M-RC 0.60 10 16 120 108 0.00 0.54 0.48 0.42 0.30 0.30 0.30 0.24 0.18 0.18 75 25 45 45 25 25 25 26 66 25 Temperature Rise (°C) 96 Temperature Rise (°C) Inductance (µH) Inductance (µH) 84 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 72 60 48 36 24 12 0.12 0.06 0 0 18 3 12 15 0 5 10 15 20 25 30 40 45 50 55 60 12 15 20 24 28 DC Current (A) DC Current (A) DC Current (A) PM13560S-6R0M-RC PM13560S-100M-RC 10 100 100 Temperature Rise (°C) emperature Rise (°C) 80 80 70 Inductance (µH) Inductance (µH) 8.0 7.0 60 50 6.0 5.0 4.0 40 40 30 20 20 10 14 0 2.8 5.6 8.4 11.2 12 14 2 10 16 DC Current (A) DC Current (A) PM13656S-R22M-RC PM13656S-R50M-RC 0.4 100 0.60 110 0.54 0.48 0.42 0.36 0.30 0.24 0.18 0.12 Temperature Rise (°C) Temperature Rise (°C) 99 Inductance (µH) 0.32 80 Inductance (µH) 88 77 0.24 60 66 55 44 33 22 0.16 40 0.08 20 0.06 0 0 12 24 36 48 60 10 15 20 25 30 40 45 50 5 55 60 0 DC Current (A) DC Current (A) PM13666S-1R0M-RC 10 femperature Rise (°C) 99 88 77 Inductance (µH) 0. 0. 66 55 44 0.7 0.6 0.5 0.4 33 22

Specifications are subject to change without notice.

DC Current (A)

5 10 15 20 25 35 40 45 50 60

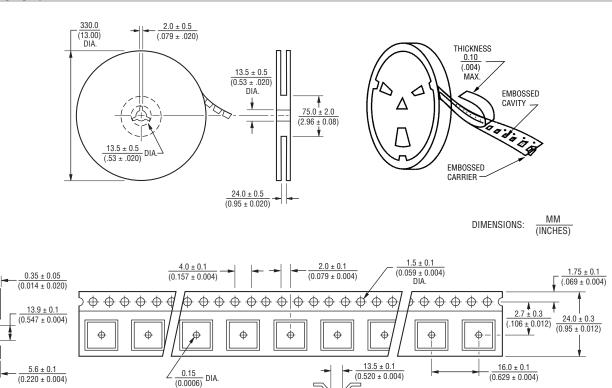
Users should verify actual device performance in their specific applications.

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Packaging Specifications



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REV. 03/18

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