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.	Inductance 100 kHz (µH)	Inductance 100 kHz Tol. %	Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	DCR Max. (mΩ)	Irms (A)	Isat (A)
PM428S-1R2-RC	1.2	±30	9.34	7.96	143.0	20	3.10	2.56
PM428S-1R8-RC	1.8	±30	9.18	7.96	117.0	25	2.70	2.20
PM428S-2R2-RC	2.2	±30	9.24	7.96	90.0	28	2.50	2.05
PM428S-2R7-RC	2.7	±30	8.64	7.96	88.0	30	2.35	1.80
PM428S-3R3-RC	3.3	±30	7.72	7.96	77.0	35	2.15	1.65
PM428S-3R9-RC	3.9	±30	8.58	7.96	79.0	60	1.72	1.50
PM428S-4R7-RC	4.7	±30	8.12	7.96	42.0	70	1.55	1.30
PM428S-5R6-RC	5.6	±30	9.56	7.96	68.0	85	1.38	1.20
PM428S-6R8-RC	6.8	±30	9.624	7.96	58.0	90	1.30	1.15
PM428S-8R2-RC	8.2	±30	8.24	7.96	45.0	100	1.25	1.05
PM428S-100-RC	10	±30	11.26	2.52	30.0	110	1.19	1.00
PM428S-120-RC	12	±30	11.26	2.52	29.0	125	1.12	0.85
PM428S-150-RC	15	±30	9.66	2.52	30.0	150	1.03	0.78
PM428S-180-RC	18	±30	11.64	2.52	27.0	160	0.98	0.75
PM428S-220-RC	22	±30	8.26	2.52	23.0	185	0.93	0.72
PM428S-270-RC	27	±30	10.76	2.52	18.0	200	0.89	0.60
PM428S-330-RC	33	±30	9.7	2.52	16.0	230	0.82	0.58
PM428S-390-RC	39	±30	9.74	2.52	20.0	250	0.80	0.50
PM428S-470-RC	47	±30	10.88	2.52	10.0	280	0.75	0.48
PM428S-560-RC	56	±30	9	2.52	11.0	320	0.70	0.41
PM428S-680-RC	68	±30	8.42	2.52	13.0	400	0.63	0.36
PM428S-820-RC	82	±30	8.6	2.52	9.8	520	0.56	0.32
PM428S-101-RC	100	±30	8.78	0.796	10.0	600	0.51	0.30
PM428S-121-RC	120	±30	13.32	0.796	8.8	700	0.47	0.28
PM428S-151-RC	150	±30	11.72	0.796	6.8	860	0.42	0.26
PM428S-181-RC	180	±30	13.86	0.796	6.7	1000	0.39	0.23

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

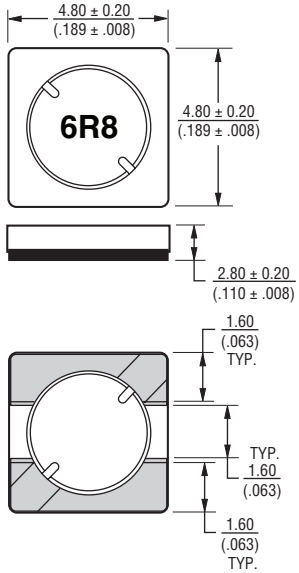
General Specifications

Test Voltage ..... 0.1 V, 100 KHz
Operating Temp. .....-55 °C to +125 °C
(Temperature rise included)
Storage Temperature .. -40 °C to +125 °C
Moisture Sensitivity Level 1
ESD Classification (HBM)..... N/A

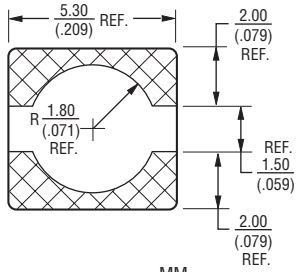
Materials

Core Material .....Ferrite
Wire .....Enameled Copper
Adhesive.....Epoxy Resin
Terminal Finish .....SnAgCu
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



DIMENSIONS: MM (INCHES)

CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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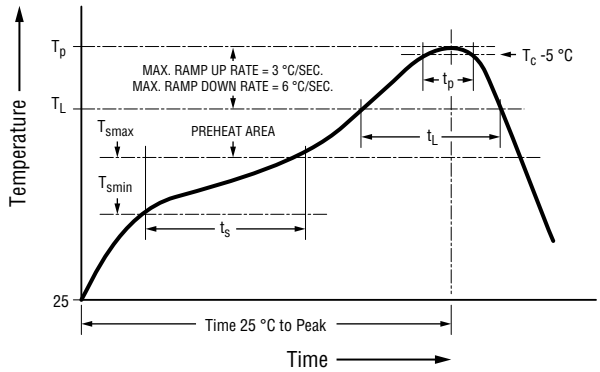
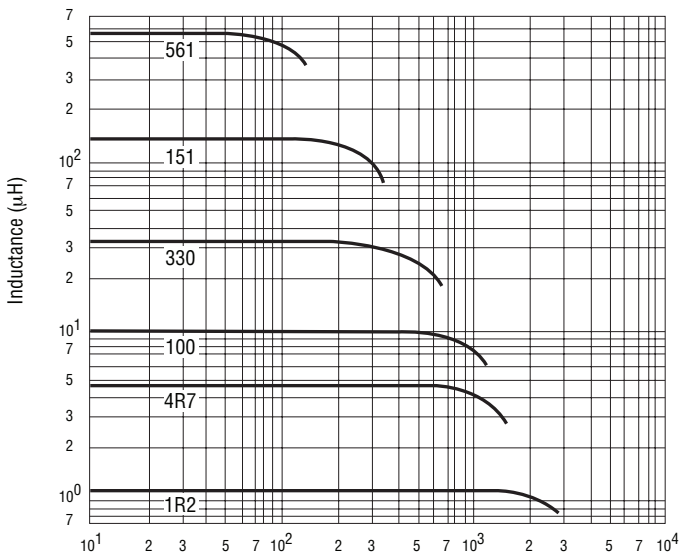
Soldering Profile



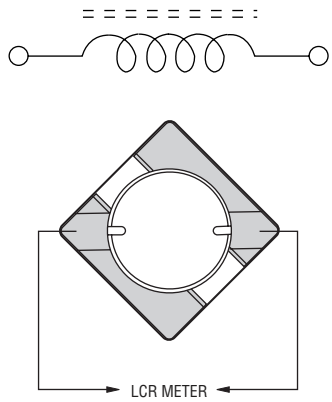
REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_p)	250 °C
Time (t_p) at T_c - 5 °C (T_p should be equal to or less than T_c)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

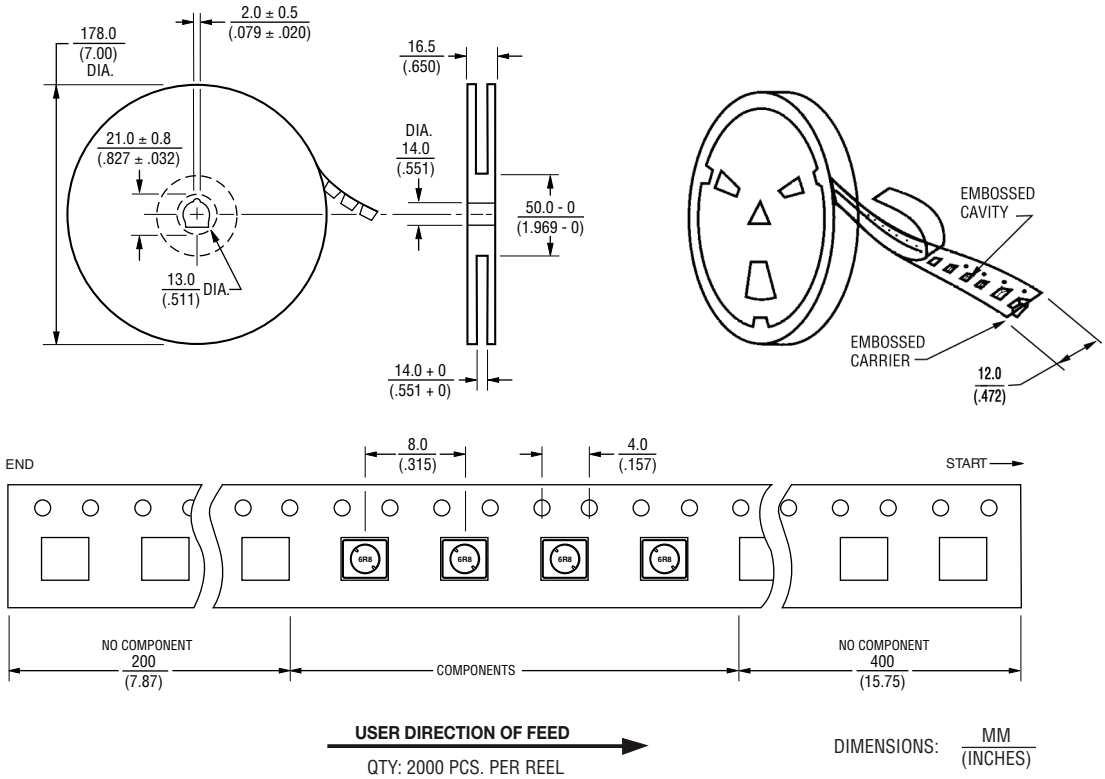
Inductance vs. Current



Electrical Schematic



Packaging Specifications



REV. 03/26

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