



**THE DATASHEET OF  
PMEG3020EGW-QX**





## Features

- Available in E12 values
- Inductance range as low as 1.1  $\mu\text{H}$
- Current rating to 10.2 amps
- RoHS compliant\*

## Applications

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

## SRR1280 Series - Shielded SMD Power Inductors

### Electrical Specifications

Bourns Part Number	Inductance		Q (Typ.)	Test Freq. (MHz)	SRF Typ. (MHz)	RDC Max. (m $\Omega$ )	I rms Max. (A)	I sat Typ. (A)	**K-Factor
	( $\mu\text{H}$ )	Tol. (%)							
SRR1280-1R1Y	1.1	$\pm 30$	26	7.96	85	6.5	10.20	14.00	94
SRR1280-1R2Y	1.2	$\pm 30$	28	7.96	83	7.0	9.80	10.50	90
SRR1280-1R4Y	1.4	$\pm 30$	24	7.96	80	9.8	9.80	12.00	90
SRR1280-2R4Y	2.4	$\pm 30$	20	7.96	45	10.0	9.20	10.50	62
SRR1280-3R3Y	3.3	$\pm 30$	20	7.96	40	12.0	8.80	9.80	54
SRR1280-3R5Y	3.5	$\pm 30$	20	7.96	36	12.0	8.80	9.80	56
SRR1280-4R5Y	4.5	$\pm 30$	20	7.96	34	13.5	8.50	9.00	48
SRR1280-4R7Y	4.7	$\pm 30$	22	7.96	30	15.5	8.20	8.80	48
SRR1280-5R6Y	5.6	$\pm 30$	20	7.96	24	16.0	8.00	8.50	44
SRR1280-6R1Y	6.1	$\pm 30$	20	7.96	23	18.0	6.60	7.80	43
SRR1280-6R8Y	6.8	$\pm 30$	20	7.96	22	18.5	7.60	8.00	39
SRR1280-7R5Y	7.5	$\pm 30$	16	7.96	21	17.5	6.40	7.00	37
SRR1280-7R6Y	7.6	$\pm 30$	15	7.96	21	20.0	5.90	6.50	35
SRR1280-8R2Y	8.2	$\pm 30$	22	2.52	20	20.5	6.20	6.80	35
SRR1280-100M	10.0	$\pm 20$	24	2.52	17	19.5	6.00	6.60	32
SRR1280-120M	12.0	$\pm 20$	26	2.52	15	28.0	5.60	6.30	30
SRR1280-150M	15.0	$\pm 20$	26	2.52	13	28.5	5.20	5.00	28
SRR1280-180M	18.0	$\pm 20$	24	2.52	12	35.0	4.80	4.60	23
SRR1280-220M	22.0	$\pm 20$	20	2.52	11	38.6	4.30	4.10	21
SRR1280-270M	27.0	$\pm 20$	26	2.52	10	52.0	3.90	3.70	20
SRR1280-330M	33.0	$\pm 20$	28	2.52	9.5	57.0	3.50	3.30	17
SRR1280-390M	39.0	$\pm 20$	24	2.52	8.5	70.0	3.20	3.10	16
SRR1280-470M	47.0	$\pm 20$	24	2.52	7.5	80.0	2.90	2.80	15
SRR1280-560M	56.0	$\pm 20$	24	2.52	7.0	100.0	2.60	2.50	13
SRR1280-680M	68.0	$\pm 20$	20	2.52	6.5	120.0	2.40	2.30	12
SRR1280-820M	82.0	$\pm 20$	20	0.796	5.0	130.0	2.30	2.20	11
SRR1280-101M	100.0	$\pm 20$	18	0.796	4.5	150.0	2.10	2.00	10
SRR1280-121K	120.0	$\pm 10$	16	0.796	4.3	200.0	1.95	1.95	9
SRR1280-151K	150.0	$\pm 10$	24	0.796	4.1	270.0	1.85	1.90	8
SRR1280-181K	180.0	$\pm 10$	24	0.796	4.0	300.0	1.75	1.88	7
SRR1280-221K	220.0	$\pm 10$	24	0.796	3.4	400.0	1.60	1.70	7
SRR1280-271K	270.0	$\pm 10$	20	0.796	3.1	450.0	1.20	1.60	6
SRR1280-331K	330.0	$\pm 10$	18	0.796	2.9	600.0	1.10	1.40	5
SRR1280-391K	390.0	$\pm 10$	20	0.796	2.7	680.0	1.00	1.40	5
SRR1280-471K	470.0	$\pm 10$	20	0.796	2.2	880.0	0.90	1.25	5
SRR1280-561K	560.0	$\pm 10$	20	0.796	2.0	960.0	0.80	1.15	4
SRR1280-681K	680.0	$\pm 10$	26	0.796	1.7	1300.0	0.75	0.97	4
SRR1280-821K	820.0	$\pm 10$	20	0.796	1.4	1500.0	0.70	0.94	4
SRR1280-102K	1000.0	$\pm 10$	40	0.252	1.3	1700.0	0.68	0.80	3

\*\*K-Factor: To calculate core flux density,  $B_p$ -p (gauss) =  $K \times L(\mu\text{H}) \times \Delta I$  (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

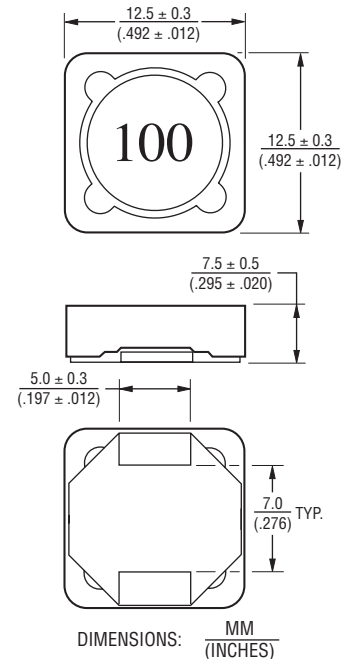
### General Specifications

Inductance Test Frequency / Voltage  
 SRR1280-1R1Y to -8R2Y ... 100 kHz/1 V  
 SRR1280-100M to -102K..... 1 kHz/1 V  
 Operating Temperature  
 .....-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature  
 .....-40 °C to +125 °C  
 Temperature Rise  
 .....40 °C typ. at rated I rms  
 Inductance Drop ..... 25 % typ. at I sat  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM)..... N/A

### Materials

Core.....Ferrite DR and RI  
 Wire ..... Enameled copper wire 130  
 Terminal Finish ..... Sn  
 Packaging..... 400 pcs. per reel

### Product Dimensions



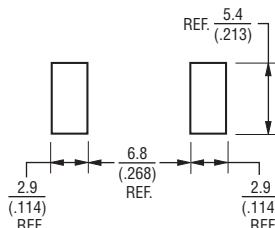
### Additional Information

Click these links for more information:



**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant.  
 See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Recommended Layout

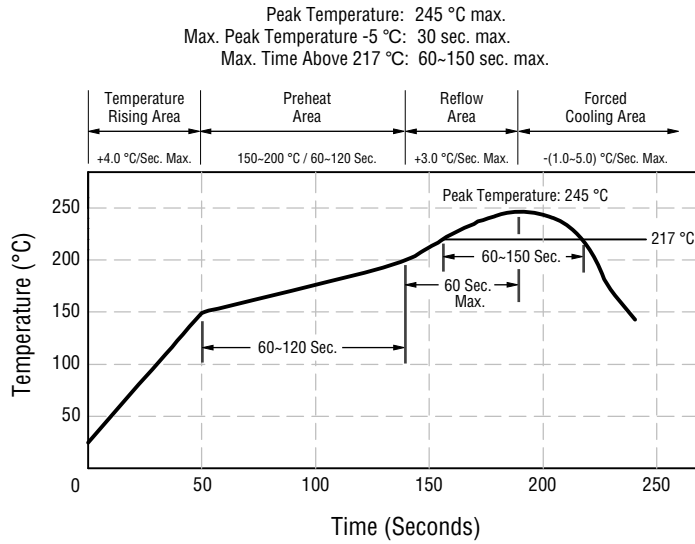


\*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

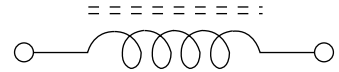
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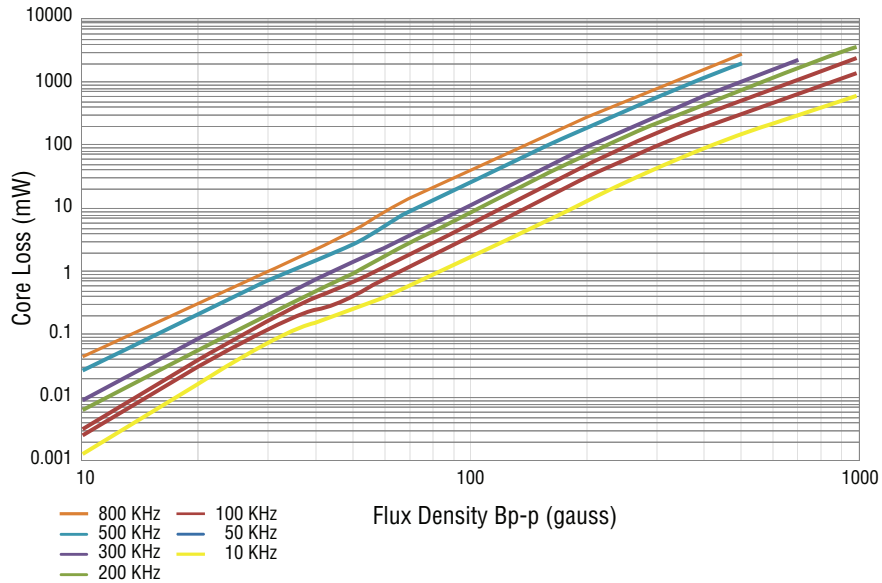
## Soldering Profile



## Electrical Schematic



## Core Loss vs. Flux Density



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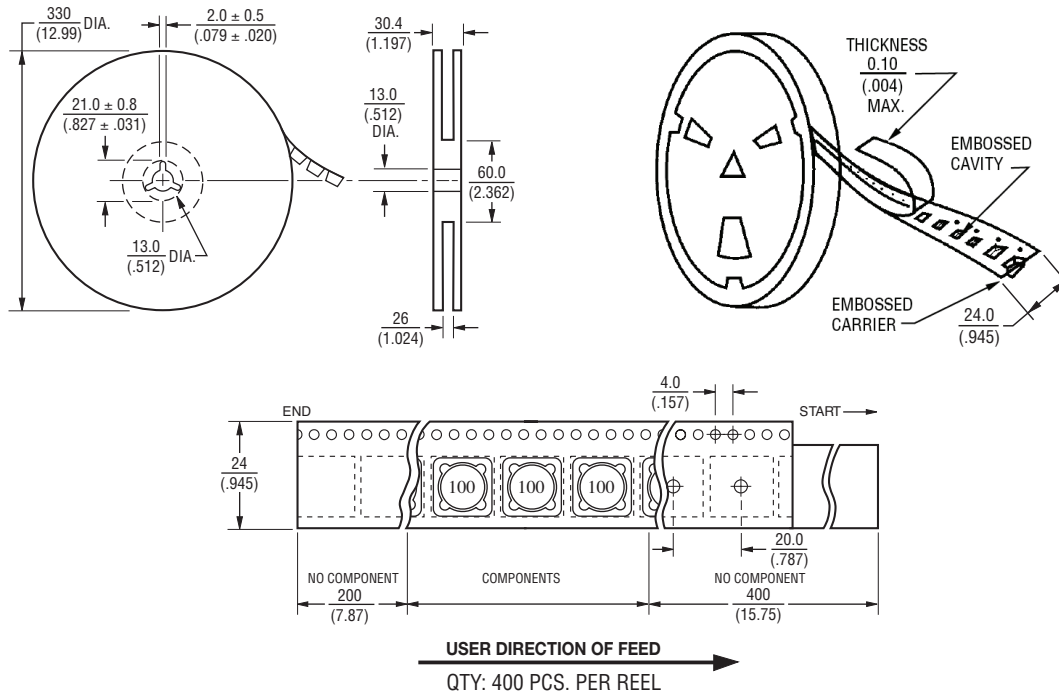
Users should verify actual device performance in their specific applications.

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## Packaging Specifications



REV. 11/25

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