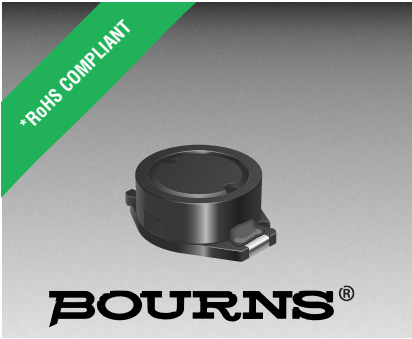




**THE DATASHEET OF  
SRR0805-681K**





### Features

- Available in E12 series
- Low profile - 4.7 mm unit height
- High current
- RoHS compliant\*

### Applications

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

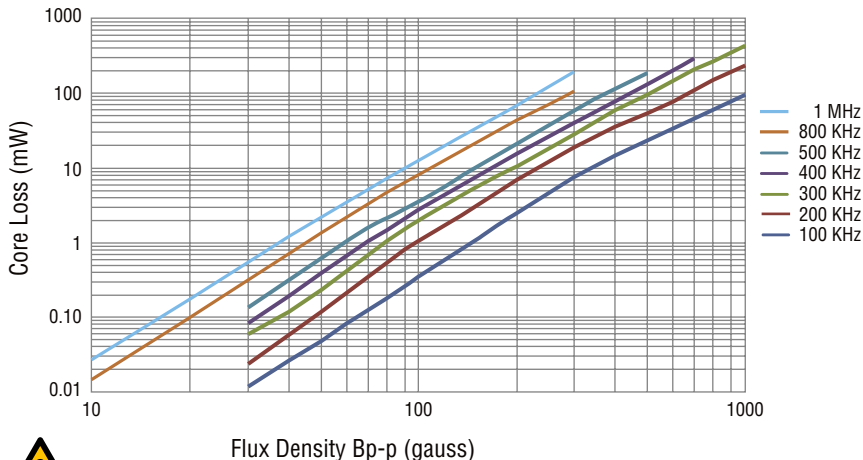
## SRR0805 Series - Shielded Power Inductors

### Electrical Specifications

Bourns Part No.	Inductance 1 KHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	I rms Max. (A)	I sat Typ. (A)	**K- Factor
	μH	Tol. %							
SRR0805-2R2M	2.2	± 20	18	7.96M	75.0	0.040	2.50	4.90	202
SRR0805-3R9M	3.9	± 20	20	7.96M	50.0	0.055	2.10	3.70	159
SRR0805-5R6M	5.6	± 20	20	7.96M	40.0	0.065	1.95	3.20	132
SRR0805-8R2M	8.2	± 20	19	7.96M	32.0	0.080	1.75	2.50	104
SRR0805-100M	10	± 20	40	2.52M	28.0	0.100	1.50	2.20	92
SRR0805-120M	12	± 20	40	2.52M	24.0	0.120	1.40	2.10	87
SRR0805-150M	15	± 20	40	2.52M	22.0	0.140	1.30	1.80	78
SRR0805-180Y	18	± 15	40	2.52M	19.0	0.160	1.20	1.70	70
SRR0805-220Y	22	± 15	38	2.52M	19.0	0.180	1.10	1.50	62
SRR0805-270Y	27	± 15	35	2.52M	15.5	0.200	1.00	1.40	57
SRR0805-330Y	33	± 15	40	2.52M	13.5	0.240	0.92	1.20	51
SRR0805-390Y	39	± 15	35	2.52M	12.0	0.260	0.84	1.10	48
SRR0805-470Y	47	± 15	32	2.52M	10.5	0.280	0.75	1.00	43
SRR0805-560K	56	± 10	30	2.52M	9.5	0.380	0.68	0.95	40
SRR0805-680K	68	± 10	28	2.52M	9.0	0.440	0.60	0.90	36
SRR0805-820K	82	± 10	28	2.52M	8.5	0.550	0.54	0.74	33
SRR0805-101K	100	± 10	45	0.796M	7.5	0.600	0.50	0.70	30
SRR0805-121K	120	± 10	42	0.796M	7.0	0.750	0.45	0.66	27
SRR0805-151K	150	± 10	39	0.796M	6.5	0.90	0.40	0.64	24
SRR0805-181K	180	± 10	41	0.796M	4.8	1.05	0.35	0.62	22
SRR0805-221K	220	± 10	38	0.796M	4.5	1.18	0.30	0.55	20
SRR0805-271K	270	± 10	37	0.796M	4.2	1.40	0.27	0.45	18
SRR0805-331K	330	± 10	36	0.796M	3.8	1.80	0.24	0.38	17
SRR0805-471K	470	± 10	34	0.796M	3.5	2.25	0.20	0.35	14
SRR0805-561K	560	± 10	32	0.796M	3.0	3.00	0.18	0.34	12
SRR0805-681K	680	± 10	32	0.796M	2.8	3.40	0.17	0.32	11
SRR0805-821K	820	± 10	35	0.796M	2.5	4.00	0.16	0.29	10
SRR0805-102K	1000	± 10	35	0.252M	2.2	5.00	0.15	0.24	9

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

### Core Loss vs. Flux Density



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://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](http://www.bourns.com/docs/legal/disclaimer.pdf)

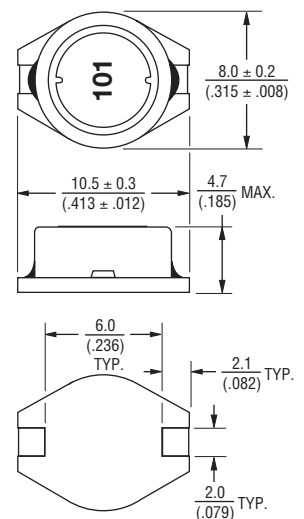
### General Specifications

Test Voltage ..... 1 V  
 Reflow Soldering .. 250 °C, 10 sec. max.  
 (In compliance with JEDEC,  
 J-STD-020C, Table 4-2)  
 Operating Temperature  
 ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .. -40 °C to +125 °C  
 Resistance to Soldering Heat  
 ..... 260 °C, 10 sec. max.  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

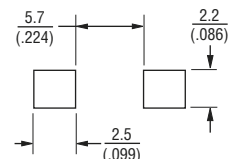
### Materials

Core ..... Ferrite DR & RI  
 Wire ..... Enameled copper  
 Base ..... LCP E4008  
 Terminal ..... Cu/Ni/Sn  
 Rated Current  
 ..... Ind. drop of 10 % typ. at Isat  
 Temperature Rise  
 ..... 40 °C max. at rated I rms  
 Packaging ..... 1000 pcs. per reel

### Product Dimensions



### Recommended Layout

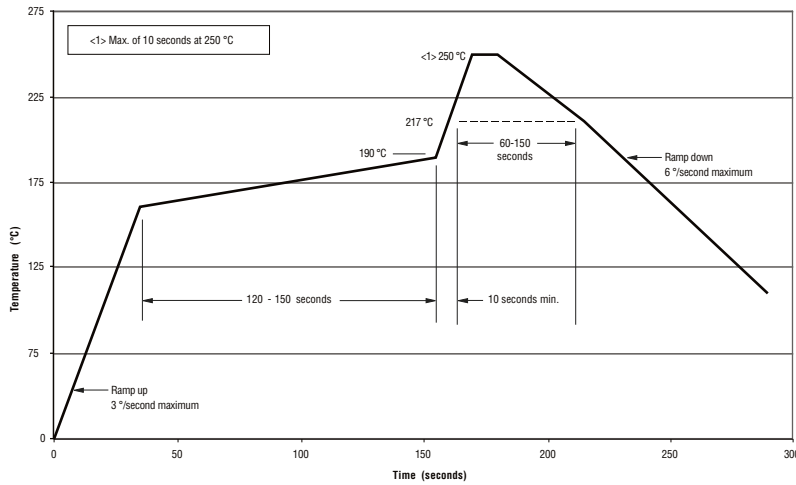


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

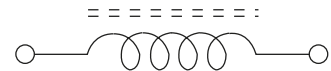
# SRR0805 Series - Shielded Power Inductors

**BOURNS®**

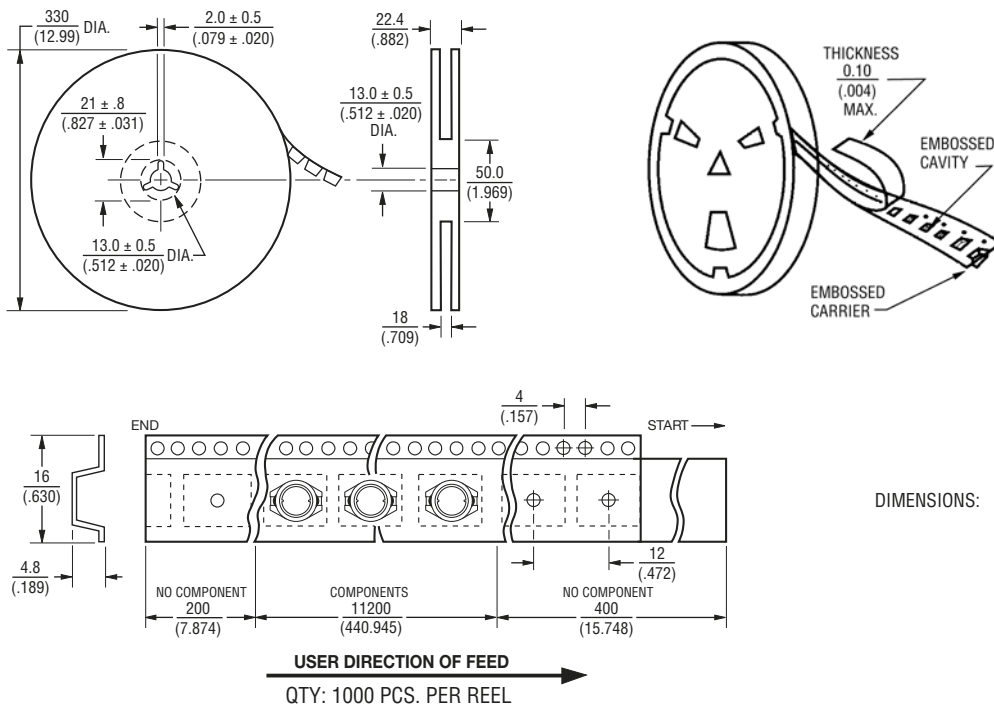
## Soldering Profile



## Schematic



## 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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