



## Features

- Available in E12 series
- Unit height of 5.2 mm
- Current up to 4.5 A
- RoHS compliant\*

## Additional Information

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## SRR1005 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 Typ. (A)	I sat Typ. (A)	**K- Factor
	μH	Tol. %							
SRR1005-1R0M	1.0	± 20	25	7.96M	120	0.017	5.80	11.00	218
SRR1005-1R5M	1.5	± 20	25	7.96M	100	0.020	5.30	9.00	179
SRR1005-2R2M	2.2	± 20	25	7.96M	90.0	0.027	4.70	7.70	151
SRR1005-3R0M	3.0	± 20	25	7.96M	80.0	0.030	4.20	6.80	131
SRR1005-3R3M	3.3	± 20	25	7.96M	75.0	0.039	4.70	6.50	131
SRR1005-4R7M	4.7	± 20	25	7.96M	50.0	0.040	3.40	5.40	103
SRR1005-6R8M	6.8	± 20	22	7.96M	35.0	0.075	3.00	4.20	85
SRR1005-7R0M	7.0	± 20	22	7.96M	32.0	0.055	2.80	4.40	85
SRR1005-100M	10	± 20	48	2.52M	30.0	0.065	2.70	3.70	73
SRR1005-120M	12	± 20	45	2.52M	25.0	0.080	2.60	3.30	63
SRR1005-150M	15	± 20	40	2.52M	20.0	0.085	2.30	3.00	56
SRR1005-180Y	18	± 15	35	2.52M	19.0	0.090	2.20	2.80	53
SRR1005-220Y	22	± 15	42	2.52M	18.0	0.100	2.00	2.60	48
SRR1005-270Y	27	± 15	40	2.52M	17.0	0.120	1.90	2.40	44
SRR1005-330Y	33	± 15	40	2.52M	15.0	0.160	1.60	2.10	39
SRR1005-390Y	39	± 15	40	2.52M	13.0	0.180	1.50	1.90	36
SRR1005-470Y	47	± 15	35	2.52M	12.0	0.190	1.43	1.80	33
SRR1005-560Y	56	± 15	35	2.52M	11.0	0.210	1.40	1.60	30
SRR1005-680Y	68	± 15	35	2.52M	9.0	0.340	1.10	1.40	27
SRR1005-820Y	82	± 15	35	2.52M	8.0	0.380	1.00	1.30	25
SRR1005-101K	100	± 10	35	0.796M	7.5	0.420	0.90	1.20	23
SRR1005-121K	120	± 10	30	0.796M	7.2	0.460	0.85	1.10	20
SRR1005-151K	150	± 10	28	0.796M	6.2	0.520	0.78	1.00	18
SRR1005-181K	180	± 10	28	0.796M	5.8	0.700	0.70	0.90	17
SRR1005-221K	220	± 10	30	0.796M	5.2	0.800	0.65	0.80	15
SRR1005-271K	270	± 10	30	0.796M	4.8	1.100	0.54	0.70	14
SRR1005-331K	330	± 10	30	0.796M	4.5	1.200	0.50	0.65	12
SRR1005-391K	390	± 10	25	0.796M	4.2	1.400	0.48	0.60	11
SRR1005-471K	470	± 10	40	0.796M	3.0	1.600	0.44	0.55	10
SRR1005-561K	560	± 10	40	0.796M	2.7	1.800	0.42	0.50	9
SRR1005-681K	680	± 10	37	0.796M	2.6	2.300	0.36	0.47	9
SRR1005-821K	820	± 10	37	0.796M	2.5	2.600	0.34	0.42	8
SRR1005-102K	1000	± 10	65	0.252M	2.0	3.200	0.30	0.38	7
SRR1005-122K	1200	± 10	58	0.252M	2.0	3.600	0.28	0.35	6
SRR1005-152K	1500	± 10	53	0.252M	1.6	5.200	0.24	0.30	6
SRR1005-182K	1800	± 10	65	0.252M	1.4	5.700	0.22	0.28	5
SRR1005-222K	2200	± 10	55	0.252M	1.4	6.500	0.21	0.26	5
SRR1005-272K	2700	± 10	55	0.252M	1.2	8.600	0.19	0.23	4
SRR1005-332K	3300	± 10	50	0.252M	1.2	10.00	0.18	0.21	4

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

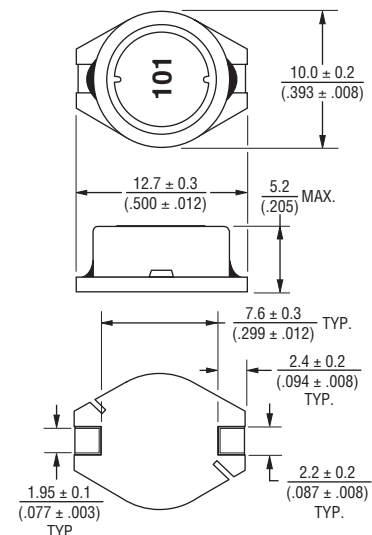
### General Specifications

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

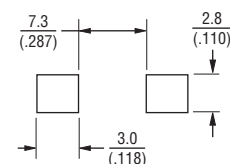
### Materials

Core..... Ferrite DR & RI core  
 Wire..... Enameled copper  
 Base..... DAP  
 Terminal Finish..... Sn  
 Rated Current  
 ..... Ind. drop of 10 % typ. at Isat  
 Temperature Rise  
 ..... 40 °C typ. at rated I rms  
 Packaging..... 600 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](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.

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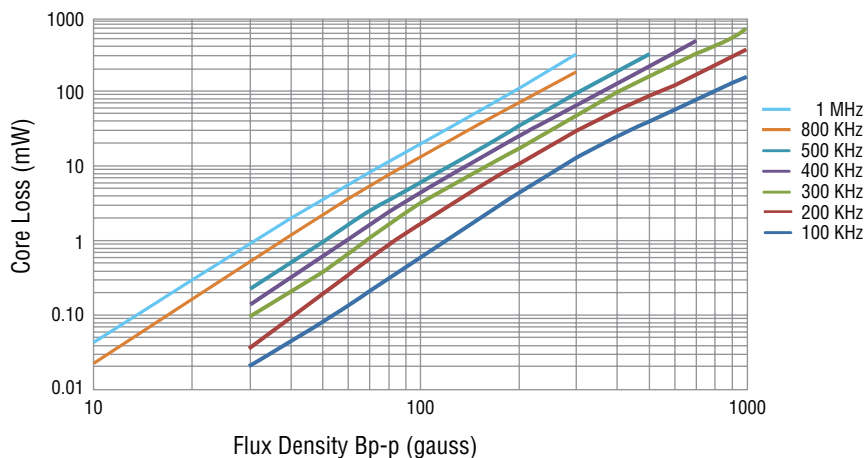
## Applications

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

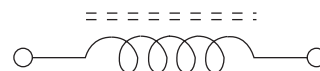
## SRR1005 Series - Shielded Power Inductors

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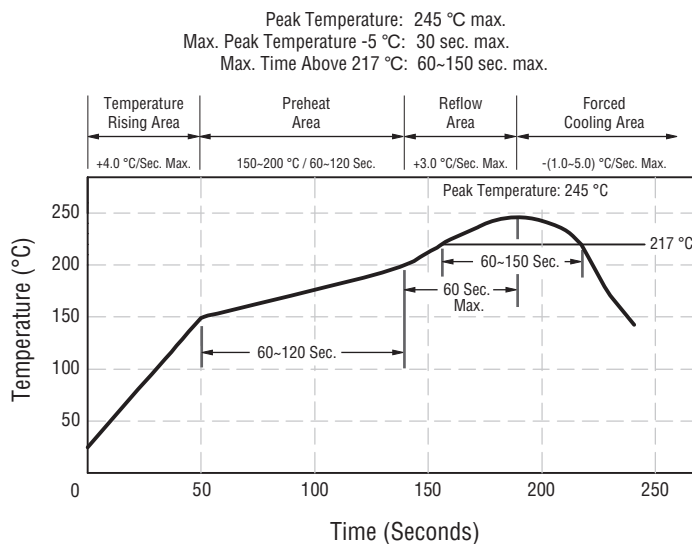
### Core Loss vs. Flux Density



### Schematic



### Soldering Profile



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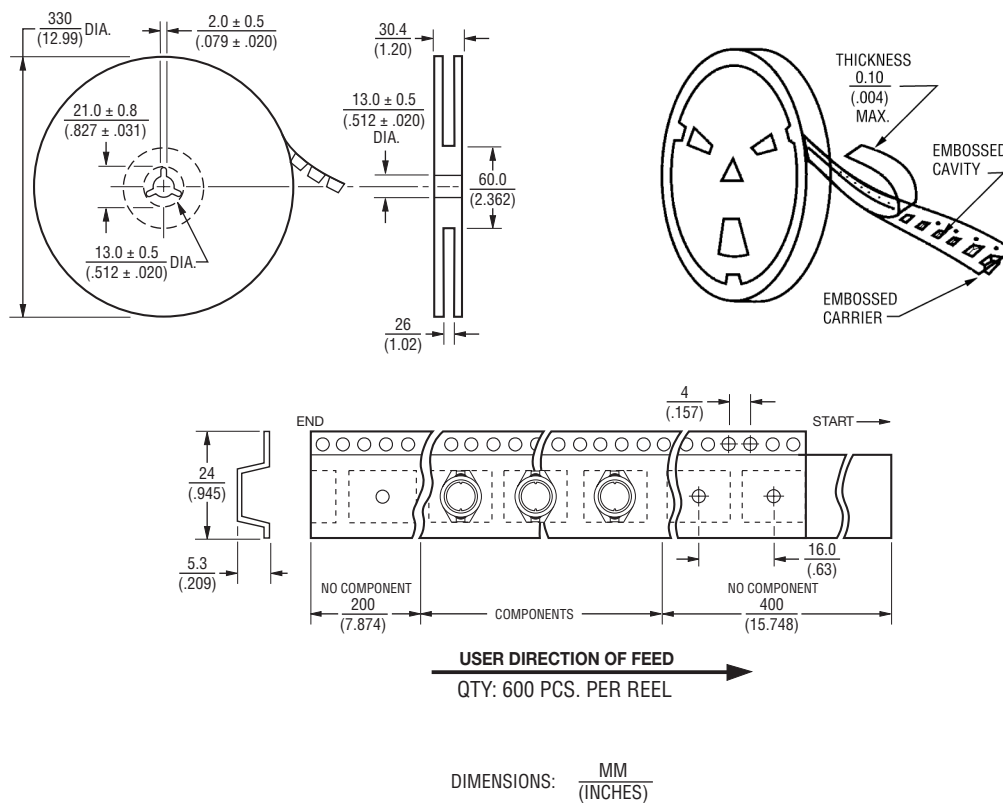
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## Packaging Specifications



REV. 01/26

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