



THE DATASHEET OF SRR1005-820Y



Features

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

Applications

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

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 Max. (A)	I sat Typ. (A)	**K- Factor
	μ H	Tol. %							
SRR1005-1R0M	1.0	± 20	25	7.96M	120	0.017	4.50	8.00	218
SRR1005-1R5M	1.5	± 20	25	7.96M	100	0.020	3.60	7.00	179
SRR1005-2R2M	2.2	± 20	25	7.96M	90.0	0.027	3.10	6.10	151
SRR1005-3R0M	3.0	± 20	25	7.96M	80.0	0.030	2.90	5.00	131
SRR1005-3R3M	3.3	± 20	25	7.96M	75.0	0.039	3.30	3.90	131
SRR1005-4R7M	4.7	± 20	25	7.96M	50.0	0.040	2.50	3.80	103
SRR1005-6R8M	6.8	± 20	22	7.96M	35.0	0.075	2.20	2.80	85
SRR1005-7R0M	7.0	± 20	22	7.96M	32.0	0.055	2.20	3.20	85
SRR1005-100M	10	± 20	48	2.52M	30.0	0.065	2.00	3.00	73
SRR1005-120M	12	± 20	45	2.52M	25.0	0.080	1.80	2.30	63
SRR1005-150M	15	± 20	40	2.52M	20.0	0.085	1.70	2.10	56
SRR1005-180Y	18	± 15	35	2.52M	19.0	0.090	1.60	2.10	53
SRR1005-220Y	22	± 15	42	2.52M	18.0	0.100	1.40	1.90	48
SRR1005-270Y	27	± 15	40	2.52M	17.0	0.120	1.30	1.60	44
SRR1005-330Y	33	± 15	40	2.52M	15.0	0.160	1.20	1.56	39
SRR1005-390Y	39	± 15	40	2.52M	13.0	0.180	1.05	1.40	36
SRR1005-470Y	47	± 15	35	2.52M	12.0	0.190	1.00	1.30	33
SRR1005-560Y	56	± 15	35	2.52M	11.0	0.210	0.90	1.10	30
SRR1005-680Y	68	± 15	35	2.52M	9.0	0.340	0.82	1.10	27
SRR1005-820Y	82	± 15	35	2.52M	8.0	0.380	0.75	0.95	25
SRR1005-101K	100	± 10	35	0.796M	7.5	0.420	0.68	0.90	23
SRR1005-121K	120	± 10	30	0.796M	7.2	0.460	0.60	0.80	20
SRR1005-151K	150	± 10	28	0.796M	6.2	0.520	0.55	0.66	18
SRR1005-181K	180	± 10	28	0.796M	5.8	0.700	0.50	0.65	17
SRR1005-221K	220	± 10	30	0.796M	5.2	0.800	0.45	0.63	15
SRR1005-271K	270	± 10	30	0.796M	4.8	1.100	0.40	0.52	14
SRR1005-331K	330	± 10	30	0.796M	4.5	1.200	0.35	0.48	12
SRR1005-391K	390	± 10	25	0.796M	4.2	1.400	0.33	0.45	11
SRR1005-471K	470	± 10	40	0.796M	3.0	1.600	0.30	0.45	10
SRR1005-561K	560	± 10	40	0.796M	2.7	1.800	0.28	0.42	9
SRR1005-681K	680	± 10	37	0.796M	2.6	2.300	0.26	0.38	9
SRR1005-821K	820	± 10	37	0.796M	2.5	2.600	0.24	0.36	8
SRR1005-102K	1000	± 10	65	0.252M	2.0	3.200	0.22	0.32	7
SRR1005-122K	1200	± 10	58	0.252M	2.0	3.600	0.20	0.29	6
SRR1005-152K	1500	± 10	53	0.252M	1.6	5.200	0.17	0.24	6
SRR1005-182K	1800	± 10	65	0.252M	1.4	5.700	0.16	0.23	5
SRR1005-222K	2200	± 10	55	0.252M	1.4	6.500	0.14	0.21	5
SRR1005-272K	2700	± 10	55	0.252M	1.2	8.600	0.12	0.18	4
SRR1005-332K	3300	± 10	50	0.252M	1.2	10.00	0.10	0.17	4

**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.



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.

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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

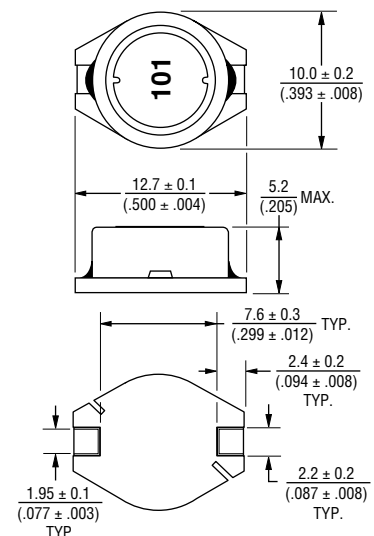
Resistance to Soldering Heat
..... 250 °C, 10 sec. max.

Moisture Sensitivity Level 1
ESD Classification (HBM) N/A

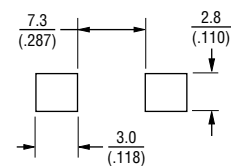
Materials

Core Ferrite DR & RI core
Wire Enameled copper
Base DAP
Terminal Cu/Ni/Sn
Rated Current
..... Ind. drop of 10 % typ. at Isat
Temperature Rise
..... 40 °C max. at rated I rms
Packaging 600 pcs. per reel

Product Dimensions



Recommended Layout

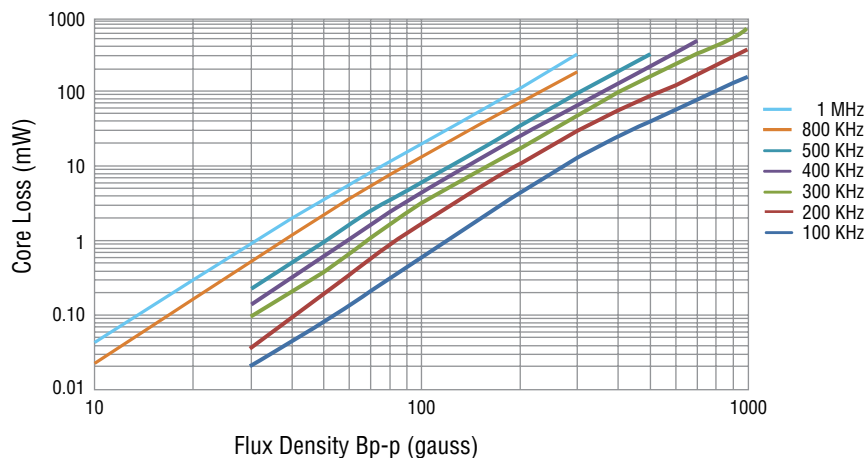


DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

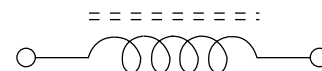
SRR1005 Series - Shielded Power Inductors

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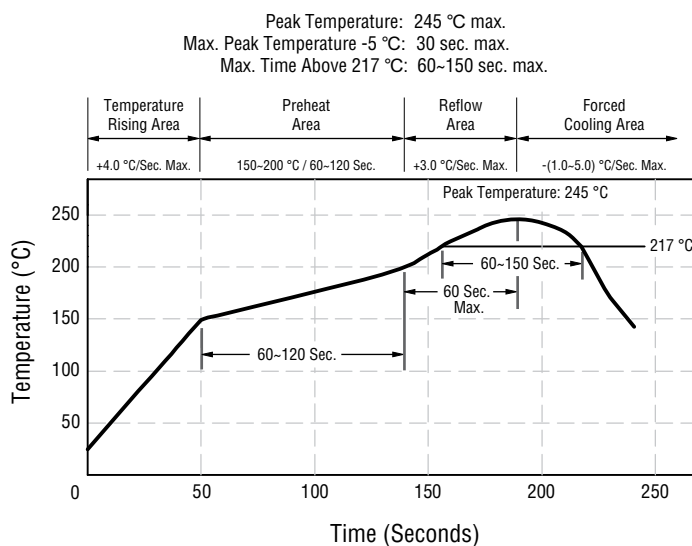
Core Loss vs. Flux Density



Schematic



Soldering Profile



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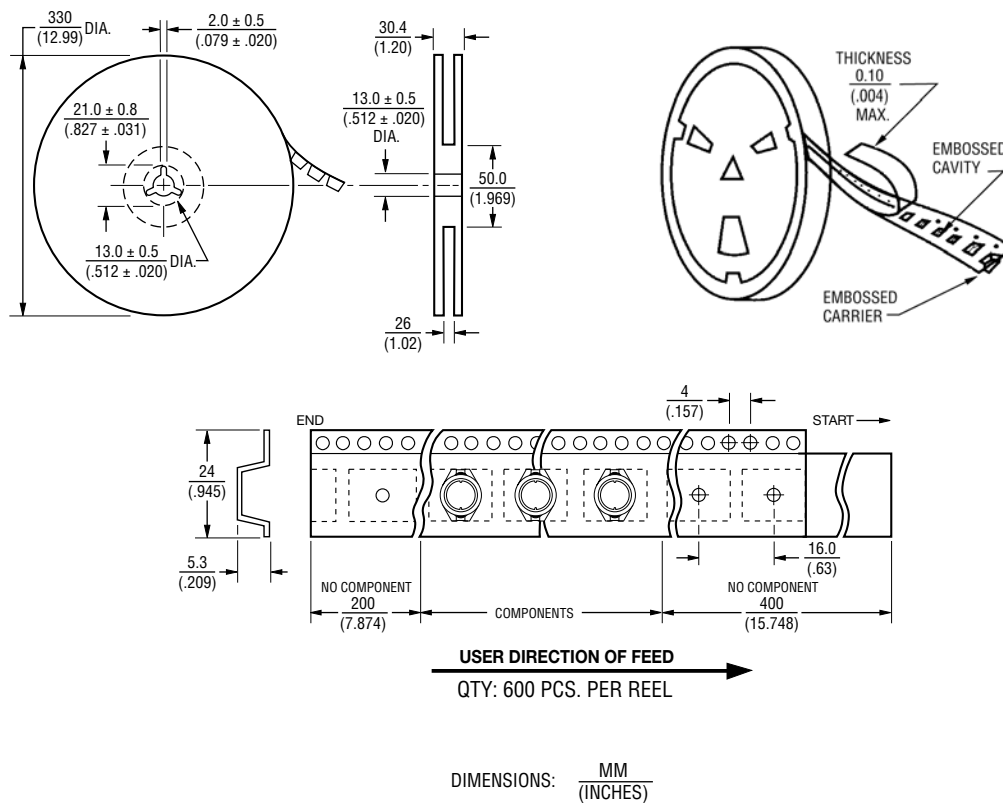
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Packaging Specifications



REV. 05/19

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