THE DATASHEET OF

SDR1005-471KL

Features

- Available in E6 series
- Low profile of only 5.0 mm
- Inductance as low as 0.68 µH
- RoHS compliant*

Applications

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

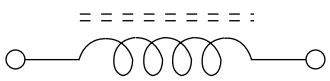
BOURNS®

SDR1005 Series - SMD Power Inductors

Electrical Specifications

Bourns Part Number	Inductance 1 kHz (µH)	Tol. %	Q Ref.	Test Frequency Q (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	I rms Max. (A)	I sat Typ. (A)
SDR1005-R68ML	0.68	± 20	26	7.960	160	0.006	8.50	9.50
SDR1005-1R0ML	1	± 20	55	2.600	137	0.007	7.50	9.00
SDR1005-1R5ML	1.5	± 20	50	3.000	95	0.009	6.50	8.00
SDR1005-2R2ML	2.2	± 20	51	2.470	65	0.012	6.10	7.00
SDR1005-2R5ML	2.5	± 20	49	3.000	56	0.012	5.50	7.00
SDR1005-3R3ML	3.3	± 20	45	2.520	54	0.015	5.00	6.40
SDR1005-4R7ML	4.7	± 20	46	2.700	42	0.019	4.50	5.40
SDR1005-6R8ML	6.8	± 20	56	2.000	31	0.030	3.40	4.50
SDR1005-100ML	10	± 20	43	4.000	26	0.050	2.90	3.70
SDR1005-150ML	15	± 20	42	2.700	22	0.060	2.50	3.00
SDR1005-220ML	22	± 20	29	2.520	18	0.10	2.00	2.50
SDR1005-330KL	33	± 10	29	2.200	14	0.12	1.80	2.00
SDR1005-470KL	47	± 10	30	2.200	12	0.19	1.40	1.60
SDR1005-680KL	68	± 10	24	2.200	11	0.24	1.20	1.40
SDR1005-101KL	100	± 10	41	0.056	8	0.33	1.00	1.20
SDR1005-151KL	150	± 10	58	0.087	6	0.59	0.80	1.00
SDR1005-221KL	220	± 10	50	0.068	5	0.78	0.70	0.80
SDR1005-331KL	330	± 10	56	0.070	4	1.15	0.55	0.60
SDR1005-471KL	470	± 10	60	0.081	4	1.70	0.45	0.50
SDR1005-681KL	680	± 10	72	0.096	3	2.60	0.35	0.40
SDR1005-102KL	1000	± 10	78	0.122	2	3.90	0.30	0.35
SDR1005-152KL	1500	± 10	97	0.131	2	6.30	0.25	0.30
SDR1005-222KL	2200	± 10	85	0.128	2	8.20	0.20	0.24
SDR1005-332KL	3300	± 10	106	0.128	1	14.00	0.16	0.18
SDR1005-472KL	4700	± 10	96	0.125	1	17.00	0.15	0.16
SDR1005-682KL	6800	± 10	105	0.171	1	30.00	0.11	0.12
SDR1005-822KL	8200	± 10	102	0.145	1	34.00	0.11	0.12
SDR1005-103KL	10000	± 10	102	0.138	1	39.00	0.10	0.11

Electrical Schematic



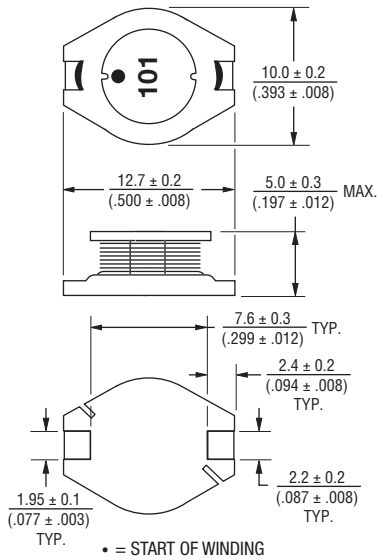
General Specifications

Test Voltage ..... 0.1 V, 100 KHz
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

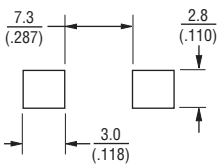
Materials

Core ..... Ferrite DR
Wire ..... Enameled copper
Base ..... DAP
Terminal ..... Cu/Sn
Rated Current
..... Ind. drop 10 % typ. at Isat
Temperature Rise
..... 15 °C max. at rated I rms
Packaging ..... 600 pcs. per reel

Product Dimensions



Recommended Layout



DIMENSIONS: MM (INCHES)

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.

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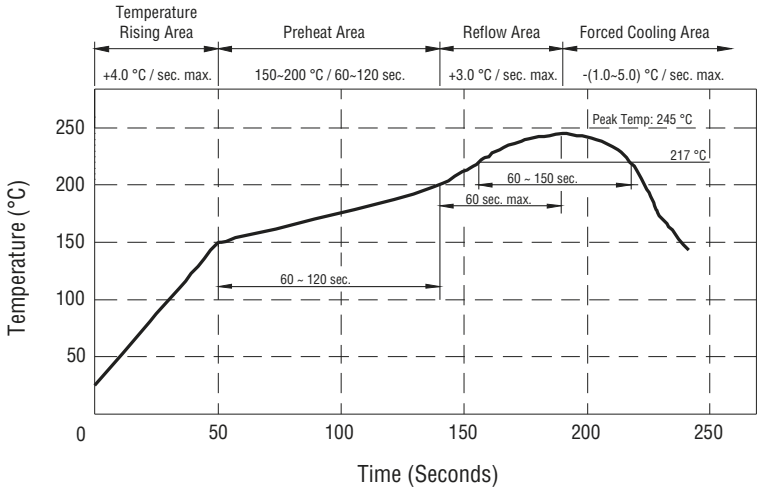
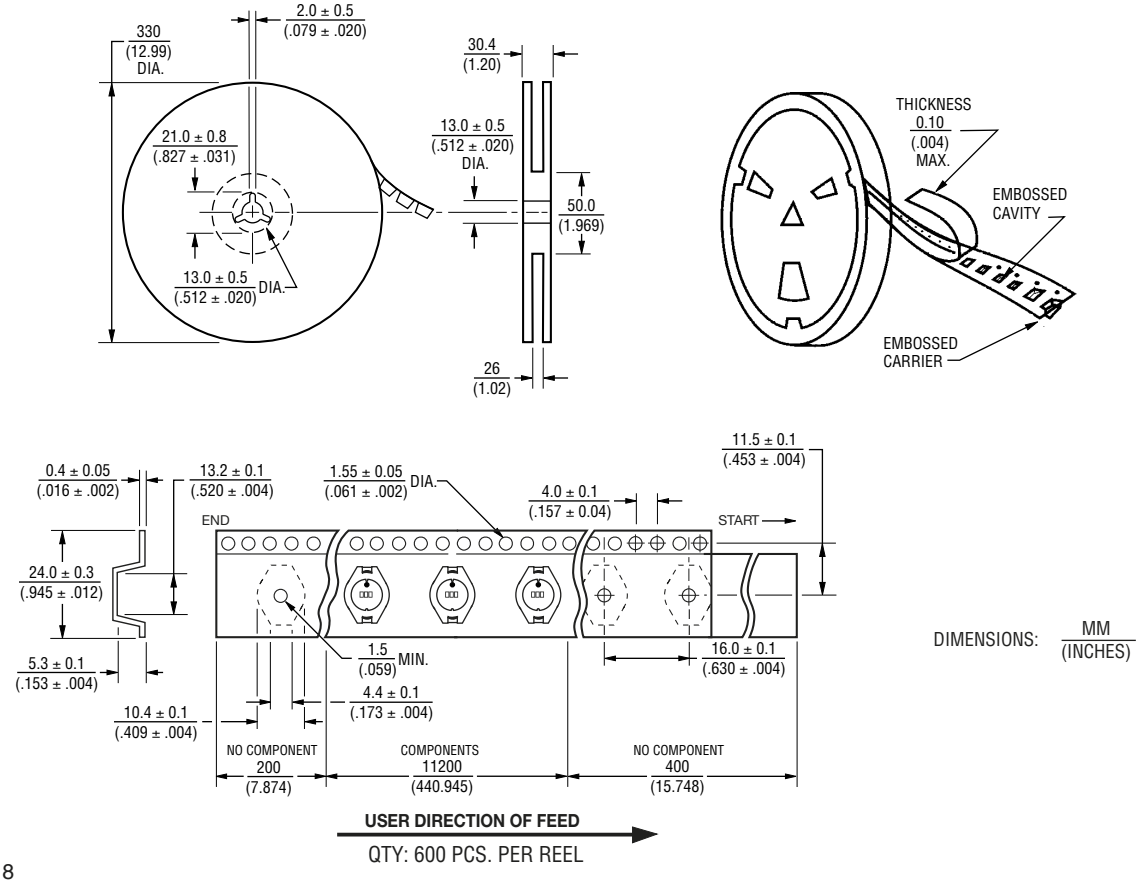
Soldering Profile



Peak Temperature: 245 °C max.
Max. Peak Temperature: -5 °C, 30 sec. max.
Max. Time Above 217 °C: 60 ~ 150 sec. max.

Packaging Specifications



DIMENSIONS: MM (INCHES)

REV. 03/18

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