



**THE DATASHEET OF
SDR1005-6R8ML**





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		Q Ref.	Test Frequency Q (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	I rms Max. (A)	I sat Typ. (A)
	(μH)	Tol. %						
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

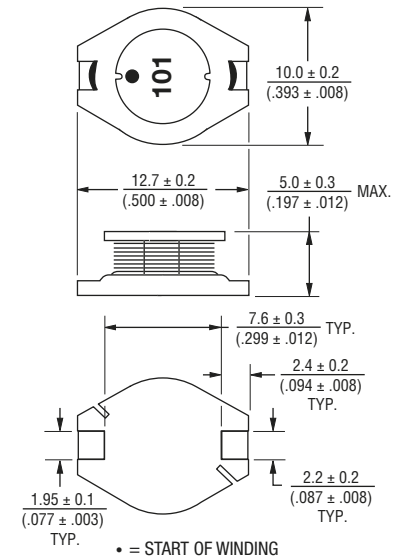
General Specifications

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

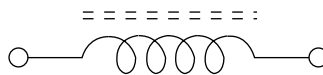
Materials

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

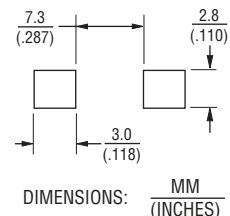
Product Dimensions



Electrical Schematic



Recommended Layout



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. 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

SDR1005 Series - SMD Power Inductors

BOURNS®

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



REV. 03/18

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