

Features

- Available in E12 series
- Low profile of only 2.5 mm
- Low inductance values
- RoHS compliant*

Applications

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

SDR0302 Series - SMD Power Inductors

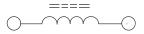
Electrical Specifications

Bourns Part No.		Inductance @100 kHz / 0.1 V		Test	SRF	RDC	l rms	l sat
	(μΗ)	Tol. %	Ref.	Frequency (MHz)	Min. (MHz)	Max. (Ω)	Max. (A)	Тур. (A)
SDR0302-1R0ML	1.0	± 20	20	7.96	125.0	0.06	2.100	2.700
SDR0302-1R2ML	1.2	± 20	22	7.96	100.0	0.07	2.000	2.500
SDR0302-1R4ML	1.4	± 20	22	7.96	95.0	0.07	1.500	2.300
SDR0302-1R5ML	1.5	± 20	23	7.96	95.0	0.07	1.900	2.300
SDR0302-1R8ML	1.8	± 20	23	7.96	85.0	0.08	1.800	2.000
SDR0302-2R2ML	2.2	± 20	22	7.96	75.0	0.09	1.650	1.850
SDR0302-2R7ML	2.7	± 20	22	7.96	72.0	0.10	1.500	1.700
SDR0302-3R3ML	3.3	± 20	23	7.96	68.0	0.11	1.400	1.600
SDR0302-3R9ML	3.9	± 20	24	7.96	50.0	0.12	1.300	1.500
SDR0302-4R7ML	4.7	± 20	18	7.96	45.0	0.15	1.200	1.350
SDR0302-5R6ML	5.6	± 20	18	7.96	42.0	0.16	1.100	1.300
SDR0302-6R8ML	6.8	± 20	18	7.96	40.0	0.18	1.000	1.200
SDR0302-8R2ML	8.2	± 20	16	7.96	35.0	0.20	0.900	1.050
SDR0302-100ML	10.0	± 20	18	2.52	34.0	0.25	0.800	0.900
SDR0302-120ML	12.0	± 20	15	2.52	33.0	0.28	0.750	0.850
SDR0302-150ML	15.0	± 20	20	2.52	32.0	0.40	0.650	0.800
SDR0302-180ML	18.0	± 20	18	2.52	28.0	0.46	0.580	0.750
SDR0302-220ML	22.0	± 20	23	2.52	22.0	0.66	0.520	0.650
SDR0302-270ML	27.0	± 20	23	2.52	20.0	0.75	0.480	0.550
SDR0302-330KL	33.0	± 10	20	2.52	18.0	0.85	0.420	0.500
SDR0302-390KL	39.0	± 10	24	2.52	18.0	1.12	0.380	0.450
SDR0302-470KL	47.0	± 10	23	2.52	17.0	1.27	0.360	0.400
SDR0302-560KL	56.0	± 10	18	2.52	16.0	1.45	0.340	0.350
SDR0302-680KL	68.0	± 10	24	2.52	14.0	1.85	0.300	0.320
SDR0302-820KL	82.0	± 10	24	2.52	12.0	2.10	0.280	0.300
SDR0302-101KL	100.0	± 10	40	0.796	10.0	2.85	0.260	0.280
SDR0302-121KL	120.0	± 10	40	0.796	10.0	3.20	0.220	0.250
SDR0302-151KL	150.0	± 10	38	0.796	9.0	4.60	0.200	0.230
SDR0302-181KL	180.0	± 10	45	0.796	8.5	5.00	0.185	0.210
SDR0302-221KL	220.0	± 10	40	0.796	8.0	5.70	0.170	0.190
SDR0302-271KL	270.0	± 10	45	0.796	7.0	8.60	0.150	0.170
SDR0302-331KL	330.0	± 10	40	0.796	6.0	10.00	0.130	0.150
SDR0302-391KL	390.0	± 10	40	0.796	5.5	10.80	0.120	0.140
SDR0302-471KL	470.0	± 10	42	0.796	5.0	14.30	0.105	0.130
SDR0302-561KL	560.0	± 10	43	0.796	4.8	16.00	0.095	0.120
SDR0302-681KL	680.0	± 10	43	0.796	4.3	18.00	0.085	0.110
SDR0302-821KL	820.0	± 10	45	0.796	4.0	22.50	0.080	0.100
SDR0302-102KL	1000.0	± 10	40	0.252	3.2	26.00	0.070	0.090
SDR0302-122KL	1200.0	± 10	40	0.252	3.0	30.00	0.060	0.080

Typical Part Marking



Electrical Schematic

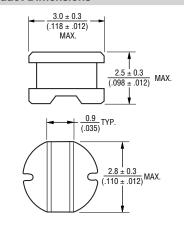


General Specifications

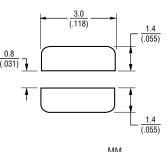
Operating Temperature
40 °C to +125 °C
(Temperature rise included)
Storage Temperature
40 °C to +125 °C
Moisture Sensitivity Level
ESD Classification (HBM)N/A

Materials
Core
Ind. drop 10 % typ. at Isat Temperature Rise40 °C max.
at rated Irms Packaging2000 pcs. per reel

Product Dimensions

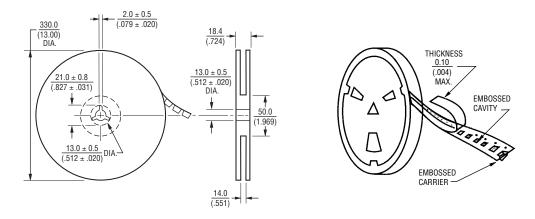


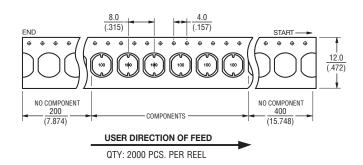
Recommended Layout



DIMENSIONS: MM (INCHES)

Packaging Specifications





DIMENSIONS: MM (INCHES)

Legal Disclaimer Notice

BOURNS®

This legal disclaimer applies to purchasers and users of Bourns® products manufactured by or on behalf of Bourns, Inc. and its affiliates (collectively, "Bourns").

Unless otherwise expressly indicated in writing, Bourns® products and data sheets relating thereto are subject to change without notice. Users should check for and obtain the latest relevant information before placing orders and should verify that such information is current and complete.

The characteristics and parameters of a Bourns® product set forth in its data sheet are based on laboratory conditions, and statements regarding the suitability of products for certain types of applications are based on Bourns' knowledge of typical requirements in generic applications. The characteristics and parameters of a Bourns® product in a user application may vary from the data sheet characteristics and parameters due to a combination of the Bourns® product with other components in the user's application or due to the environment of the user application itself. Such characteristics and parameters also can and do vary in different applications and actual performance may vary over time. Users should always verify actual performance of the Bourns® product in their specific devices and applications, and make their own independent judgments about how much additional test margin to design in to compensate for differences between laboratory and real world conditions.

Unless Bourns has explicitly designated an individual Bourns® product as meeting the requirements of a particular industry standard (e.g., ISO/TS 16949) or a particular qualification (e.g., UL listed or recognized), Bourns is not responsible for any failure of an individual Bourns® product to meet requirements of such industry standard or such particular qualification. Users of Bourns® products are responsible for ensuring compliance with safety-related requirements and standards applicable to their applications.

Bourns® products are not recommended, authorized or intended for use in nuclear, lifesaving, life-critical or life-sustaining applications, nor in any other applications where failure or malfunction may result in personal injury, death, or severe property or environmental damage. Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any Bourns® products in such unauthorized applications is at the user's sole risk. Life-critical applications include devices identified by the U.S. Food and Drug Administration as Class III devices and generally equivalent classifications outside of the United States.

Bourns® standard products that are designed and tested for use in automotive applications will be described on the applicable data sheets as compliant with the applicable AEC-Q standard. Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard products in an automotive application is not recommended, authorized or intended and will be at the user's sole risk.

Bourns® standard products are not tested to comply with United States Federal Aviation Administration standards generally or any other generally equivalent governmental organization standard applicable to products designed or manufactured for use in aircraft or space applications. Bourns® standard products that are designed and tested for use in aircraft or space applications will be described on the applicable data sheets as compliant with the RTCA DO-160 standard. Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard product in an aircraft or space application is not recommended, authorized or intended and will be at the user's sole risk.

The use and level of testing applicable to Bourns® custom products shall be negotiated on a case-by-case basis by Bourns and the user for which such Bourns® custom products are specially designed. Absent a written agreement between Bourns and the user regarding the use and level of such testing, the provisions above applicable to Bourns® standard products shall also apply to such Bourns® custom products.

Users shall not sell, transfer, export or re-export any Bourns® products or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor shall they use Bourns® products or technology in any facility which engages in activities relating to such devices. The foregoing restrictions apply to all uses and applications that violate national or international prohibitions, including embargos or international regulations. Further, Bourns® products, technology or technical data may not under any circumstance be exported or re-exported to countries subject to international sanctions or embargoes, and Bourns® products may not, without prior authorization from Bourns and/or the U.S. Government, be resold, transferred, or re-exported to any party not eligible to receive U.S. commodities, software, and technical data.

To the maximum extent permitted by applicable law, Bourns disclaims (i) any and all liability arising out of the application or use of any Bourns® standard product, (ii) any and all liability, including, without limitation, special, punitive, consequential or incidental damages, and (iii) any and all implied warranties, including implied warranties of fitness for particular purpose, non-infringement and merchantability.

For your convenience, copies of this Legal Disclaimer Notice with German, Spanish, Japanese, Traditional Chinese and Simplified Chinese bilingual versions are available at:

Web Page: http://www.bourns.com/legal/disclaimers-terms-and-policies

PDF: http://www.bourns.com/docs/Legal/disclaimer.pdf