



Features

- Available in E12 series
- Small design of only 9.8 mm maximum diameter
- RoHS compliant*

Applications

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

SDR1006 Series - SMD Power Inductors

Electrical Specifications

Bourns Part Number	Inductance 1 kHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	I rms Typ. (A)	I sat Typ. (A)
	(μH)	Tol. %						
SDR1006-1R5ML	1.5	± 20	35	7.96	105	0.018	6.40	13.00
SDR1006-2R2ML	2.2	± 20	35	7.96	68	0.021	6.00	11.00
SDR1006-3R3ML	3.3	± 20	34	7.96	55	0.024	5.50	9.80
SDR1006-3R9ML	3.9	± 20	34	7.96	48	0.027	4.90	8.60
SDR1006-4R7ML	4.7	± 20	33	7.96	40	0.036	4.20	7.80
SDR1006-5R6ML	5.6	± 20	33	7.96	35	0.040	4.00	7.00
SDR1006-6R8ML	6.8	± 20	33	7.96	32	0.044	3.70	6.20
SDR1006-8R2ML	8.2	± 20	31	7.96	24	0.048	3.50	6.00
SDR1006-100ML	10	± 20	30	2.52	21	0.060	3.20	5.40
SDR1006-120ML	12	± 20	30	2.52	20	0.070	3.00	4.70
SDR1006-150ML	15	± 20	30	2.52	16	0.080	2.70	4.40
SDR1006-180ML	18	± 20	30	2.52	15	0.090	2.60	4.10
SDR1006-220ML	22	± 20	25	2.52	13	0.10	2.50	3.60
SDR1006-270KL	27	± 10	25	2.52	11	0.11	2.44	3.30
SDR1006-330KL	33	± 10	25	2.52	10	0.12	2.30	3.00
SDR1006-390KL	39	± 10	20	2.52	9.0	0.14	2.20	2.70
SDR1006-470KL	47	± 10	20	2.52	8.0	0.17	2.00	2.50
SDR1006-560KL	56	± 10	20	2.52	7.5	0.19	1.90	2.30
SDR1006-680KL	68	± 10	15	2.52	7.0	0.22	1.80	2.10
SDR1006-820KL	82	± 10	15	2.52	6.0	0.25	1.70	2.00
SDR1006-101KL	100	± 10	15	0.796	5.2	0.35	1.40	1.70
SDR1006-121KL	120	± 10	15	0.796	5.0	0.40	1.30	1.60
SDR1006-151KL	150	± 10	15	0.796	4.5	0.47	1.20	1.40
SDR1006-181KL	180	± 10	12	0.796	4.0	0.63	1.10	1.30
SDR1006-221KL	220	± 10	12	0.796	3.8	0.73	1.00	1.20
SDR1006-271KL	270	± 10	12	0.796	3.5	0.97	0.90	1.10
SDR1006-331KL	330	± 10	12	0.796	3.2	1.15	0.80	0.95
SDR1006-391KL	390	± 10	12	0.796	3.0	1.30	0.75	0.85
SDR1006-471KL	470	± 10	12	0.796	2.5	1.48	0.70	0.85
SDR1006-561KL	560	± 10	12	0.796	2.3	1.90	0.65	0.75
SDR1006-681KL	680	± 10	12	0.796	2.1	2.25	0.60	0.70
SDR1006-821KL	820	± 10	10	0.796	2.0	2.55	0.50	0.62
SDR1006-102KL	1000	± 10	30	0.252	1.9	3.10	0.40	0.60
SDR1006-122KL	1200	± 10	31	0.252	1.8	4.20	0.35	0.54
SDR1006-152KL	1500	± 10	31	0.252	1.7	5.00	0.32	0.46
SDR1006-182KL	1800	± 10	31	0.252	1.6	6.80	0.28	0.40
SDR1006-222KL	2200	± 10	31	0.252	1.5	7.60	0.25	0.38
SDR1006-272KL	2700	± 10	32	0.252	1.4	11.60	0.21	0.35
SDR1006-332KL	3300	± 10	32	0.252	1.3	13.50	0.20	0.30
SDR1006-392KL	3900	± 10	31	0.252	1.2	14.80	0.19	0.28
SDR1006-472KL	4700	± 10	32	0.252	0.8	18.00	0.16	0.26

Additional Information

Click these links for more information:



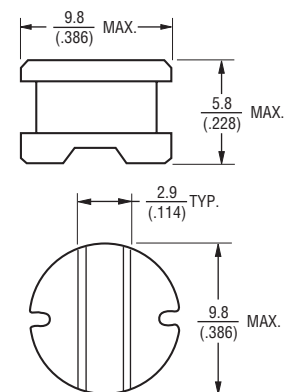
General Specifications

Test Frequency 1 KHz
 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

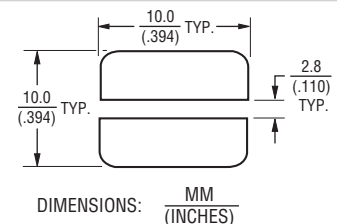
Materials

Core Ferrite DR core
 Wire Enameled copper wire
 Base DAP
 Terminal Finish SnAgCu
 Rated Current
 Ind. drop 10 % typ. at Isat
 Temperature Rise
 40 °C typ. at rated I rms
 Packaging 800 pcs. per reel

Product Dimensions



Recommended Layout



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



CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.
 See www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

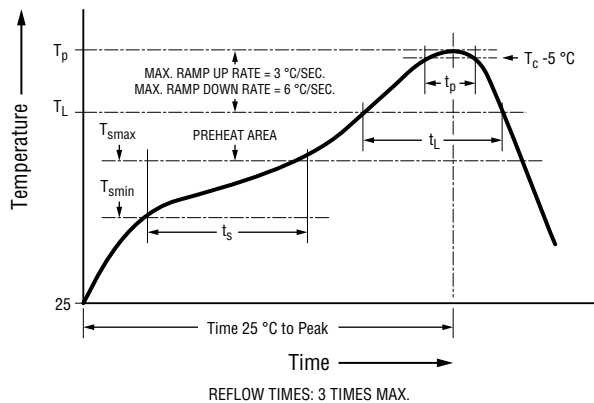
Users should verify actual device performance in their specific applications.

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SDR1006 Series - SMD Power Inductors

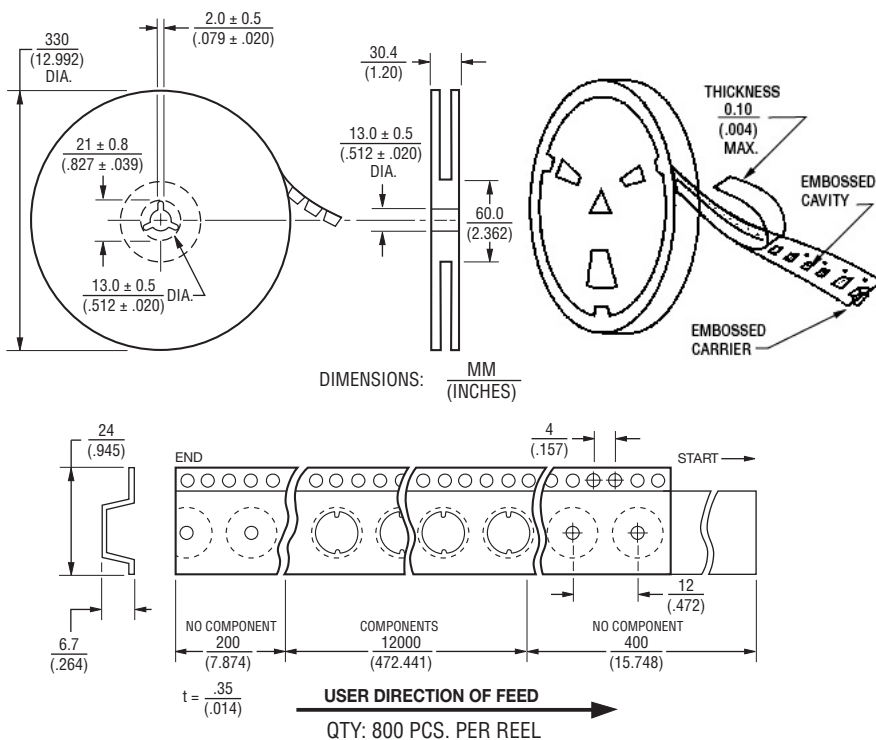
BOURNS®

Soldering Profile



Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_p)	245 °C
Time (t_p) at $T_c - 5$ °C (T_p should be equal to or less than T_c)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

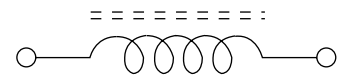
Packaging Specifications



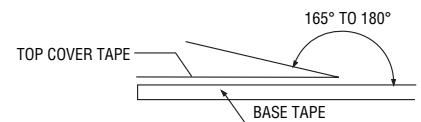
Materials

Paper
Plastics

Electrical Schematic

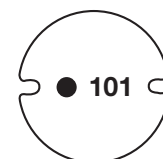


Strength Of Cover Tape



The force for tearing off cover tape is 10 to 130 grams in the arrow direction.

Typical Part Marking



REV. 06/26

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