

**BOURNS®**

## Features

- Available in E12 series
- Low profile of only 3.3mm
- High inductance of 15mH

## Applications

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

# SDR0503 Series - SMD Power Inductors

### Electrical Specifications

Bourns Part No.	Inductance 1kHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC (Ω)	I rms Max. (A)	I sat Typ. (A)
	(μH)	Tol. %						
SDR0503-100M	10	± 20	10	2.52	30.0	0.13	1.300	1.600
SDR0503-120M	12	± 20	20	2.52	29.0	0.16	1.200	1.450
SDR0503-150M	15	± 20	20	2.52	27.0	0.19	1.050	1.260
SDR0503-180M	18	± 20	20	2.52	24.0	0.21	0.950	1.300
SDR0503-220M	22	± 20	20	2.52	22.0	0.28	0.900	1.060
SDR0503-270M	27	± 20	20	2.52	20.0	0.32	0.800	1.000
SDR0503-330K	33	± 10	15	2.52	18.0	0.38	0.700	0.850
SDR0503-390K	39	± 10	15	2.52	17.0	0.42	0.650	0.800
SDR0503-470K	47	± 10	20	2.52	14.0	0.60	0.600	0.750
SDR0503-560K	56	± 10	20	2.52	13.0	0.71	0.500	0.700
SDR0503-680K	68	± 10	20	2.52	12.0	0.76	0.450	0.600
SDR0503-820K	82	± 10	15	2.52	10.0	0.88	0.420	0.520
SDR0503-101K	100	± 10	40	0.796	9.0	1.60	0.400	0.480
SDR0503-121K	120	± 10	40	0.796	8.0	1.70	0.370	0.450
SDR0503-151K	150	± 10	40	0.796	7.0	2.00	0.330	0.400
SDR0503-181K	180	± 10	40	0.796	7.0	2.30	0.300	0.350
SDR0503-221K	220	± 10	35	0.796	6.0	2.50	0.250	0.340
SDR0503-271K	270	± 10	35	0.796	6.0	2.90	0.230	0.280
SDR0503-331K	330	± 10	30	0.796	5.0	3.30	0.210	0.280
SDR0503-391K	390	± 10	30	0.796	5.0	3.70	0.190	0.240
SDR0503-471K	470	± 10	30	0.796	5.0	4.90	0.180	0.220
SDR0503-561K	560	± 10	30	0.796	4.0	5.70	0.160	0.190
SDR0503-681K	680	± 10	30	0.796	4.0	7.50	0.140	0.160
SDR0503-821K	820	± 10	40	0.796	3.0	10.00	0.120	0.155
SDR0503-102K	1000	± 10	40	0.252	3.0	11.50	0.110	0.135
SDR0503-122J	1200	± 5	40	0.252	3.0	12.00	0.063	0.090
SDR0503-152J	1500	± 5	40	0.252	2.0	13.00	0.059	0.072
SDR0503-182J	1800	± 5	40	0.252	2.0	15.00	0.055	0.070
SDR0503-222J	2200	± 5	40	0.252	2.0	22.00	0.053	0.070
SDR0503-272J	2700	± 5	40	0.252	2.0	26.00	0.050	0.070
SDR0503-332J	3300	± 5	40	0.252	2.0	38.00	0.045	0.062
SDR0503-392J	3900	± 5	40	0.252	2.0	40.00	0.042	0.060
SDR0503-472J	4700	± 5	40	0.252	1.0	48.00	0.040	0.050
SDR0503-562J	5600	± 5	40	0.252	1.0	72.00	0.038	0.050
SDR0503-682J	6800	± 5	40	0.252	1.0	80.00	0.034	0.045
SDR0503-822J	8200	± 5	40	0.252	1.0	92.00	0.030	0.045
SDR0503-103J	10000	± 5	30	0.0796	1.0	110.00	0.027	0.040
SDR0503-123J	12000	± 5	30	0.0796	1.0	148.00	0.025	0.038
SDR0503-153J	15000	± 5	30	0.0796	1.0	168.00	0.020	0.032

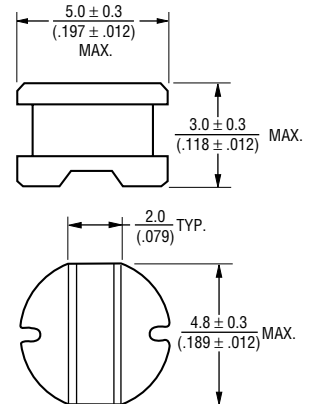
### General Specifications

Test Voltage .....1V  
 Reflow Soldering.....230°C, 10 sec. max.  
 Operating Temperature ...-40°C to +105°C  
 Storage Temperature ....-40°C to +125°C  
 Resistance to Soldering Heat  
 .....260°C for 5 sec.

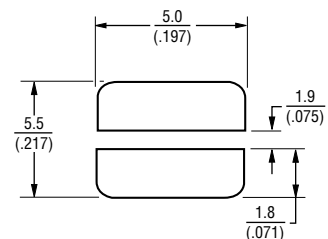
### Materials

Core .....Ferrite DR  
 Wire .....Enamelled copper  
 Terminal Electrode .....Ag & Sn/Pb  
 Rated Current  
 .....Ind. drop 10% typ. at Isat  
 Temperature Rise.....40°C max.  
 .....at rated Irms  
 Packaging .....500 pcs. per reel

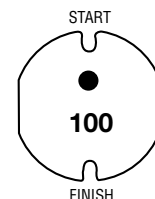
### Product Dimensions



### Recommended Layout



### Typical Part Marking

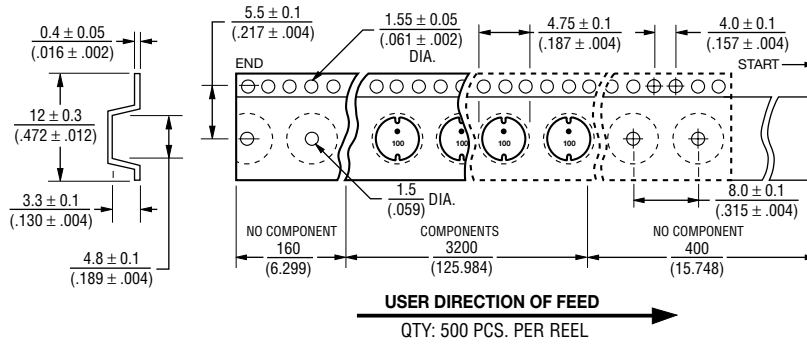
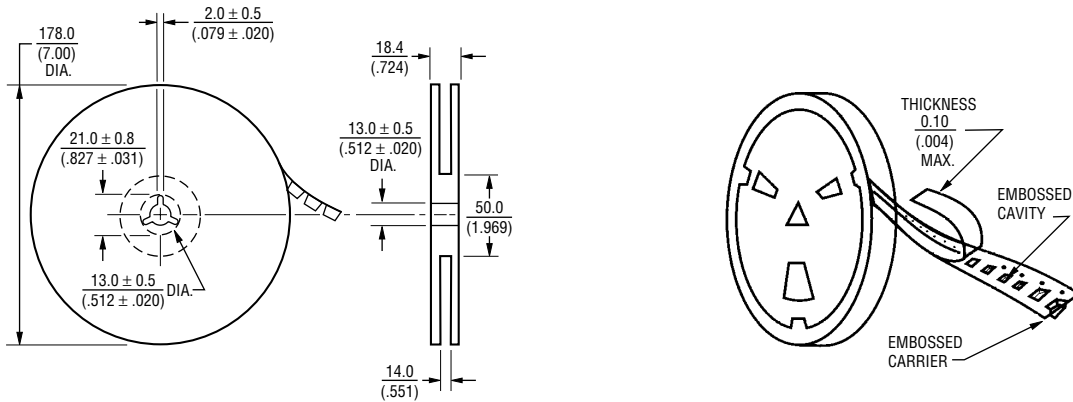


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

# SDR0503 Series - SMD Power Inductors



## Packaging Specifications



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