

**FEATURES**

- Bobbin Format
- Up to 3.1A IDC
- 2.7 $\mu$ H to 220 $\mu$ H
- Optional Integral EMI Shield
- Low DC Resistance
- Surface Mounting
- Compact Size
- Tape and Reel Packaging

**DESCRIPTION**

The 2400 series is a range of bobbin wound surface mount inductors designed for use in switching power supply and power line filter circuits. The parts are suitable for any application requiring a high saturation current in a miniature surface mount footprint. Where EMI is a critical factor the devices are available with an integral ferrite EMI shield.

SELECTION GUIDE (UNSHIELDED TYPES) <sup>1</sup>						
	Nominal Inductance	Inductance Range	DC Resistance	Nominal Self DC Current Continuous <sup>2</sup>	Resonant Frequency	Mechanical Dimensions
Order Code	$\mu$ H 1Hz, 100mV	$\mu$ H 1Hz, 100mV	MAX	A MAX	MHz 100mVrms	
<b>242R7</b>	2.7	2.04–3.78	0.039	2.60	57.0	1
<b>243R3</b>	3.3	2.44–4.54	0.042	2.40	53.0	
<b>244R7</b>	4.7	3.37–6.25	0.050	2.10	45.0	
<b>246R8</b>	6.8	5.03–9.34	0.061	1.75	37.0	
<b>24100</b>	10	8.00–12.0	0.100	1.44	27.8	
<b>24120</b>	12	8.54–15.9	0.100	1.36	26.0	
<b>24150</b>	15	12.0–18.0	0.140	1.30	22.0	
<b>24180</b>	18	13.0–24.1	0.196	1.26	20.0	
<b>24220</b>	22	17.6–26.4	0.180	1.11	16.5	
<b>24330</b>	33	28.1–34.7	0.230	0.88	13.1	
<b>24470</b>	47	40.8–54.1	0.370	0.72	10.9	
<b>24680</b>	68	61.2–74.8	0.460	0.61	9.83	
<b>24101</b>	100	90.0–110	0.700	0.52	7.03	
<b>24151</b>	150	135–165	1.100	0.40	5.13	
<b>24221</b>	220	198–242	1.570	0.35	4.24	

SELECTION GUIDE (EMI SHIELDED TYPES) <sup>1</sup>						
	Nominal Inductance	Inductance Range	DC Resistance	Nominal Self DC Current Continuous <sup>2</sup>	Resonant Frequency	Mechanical Dimensions
Order Code	$\mu$ H 1Hz, 100mV	$\mu$ H 1Hz, 100mV	MAX	A MAX	MHz 100mVrms	
<b>24S2R7</b>	2.7	1.78–3.52	0.028	3.10	79.0	2
<b>24S3R3</b>	3.3	2.07–4.68	0.032	2.80	63.0	
<b>24S4R7</b>	4.7	2.82–6.01	0.037	2.39	52.0	
<b>24S6R8</b>	6.8	4.40–9.17	0.045	2.00	39.0	
<b>24S100</b>	10	8.50–12.5	0.070	1.64	25.6	
<b>24S120</b>	12	7.65–15.2	0.074	1.50	29.0	
<b>24S150</b>	15	12.8–18.8	0.090	1.34	19.7	
<b>24S180</b>	18	11.1–22.7	0.091	1.22	23.0	
<b>24S220</b>	22	18.7–27.5	0.120	1.10	15.7	
<b>24S330</b>	33	28.1–41.3	0.190	0.90	11.2	
<b>24S470</b>	47	40.0–58.8	0.240	0.75	10.2	
<b>24S680</b>	68	57.8–85.0	0.370	0.63	8.09	
<b>24S101</b>	100	85.0–120	0.540	0.52	6.20	
<b>24S151</b>	150	128–180	0.860	0.42	4.88	
<b>24S221</b>	220	187–264	1.310	0.35	3.58	

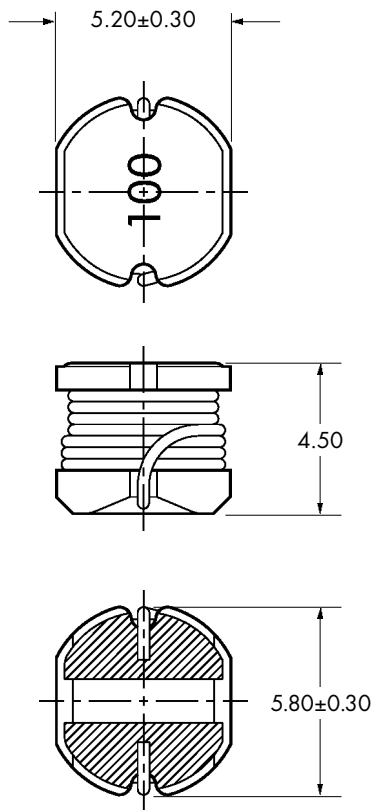
ABSOLUTE MAXIMUM RATINGS	
Operating free air temperature range	–40°C to 85°C
Storage temperature range	–40°C to 125°C

<sup>1</sup> Specifications typical at T<sub>A</sub> = 25°C  
<sup>2</sup> The maximum DC current is the value at which the inductance falls to 80% of its nominal value or until its temperature rise reaches 40°C, whichever is sooner.

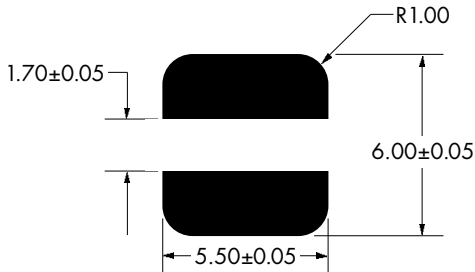
# 2400 SERIES

## Bobbin Wound Surface Mount Inductors

### 1 - MECHANICAL DIMENSIONS (UNSHIELDED TYPES)

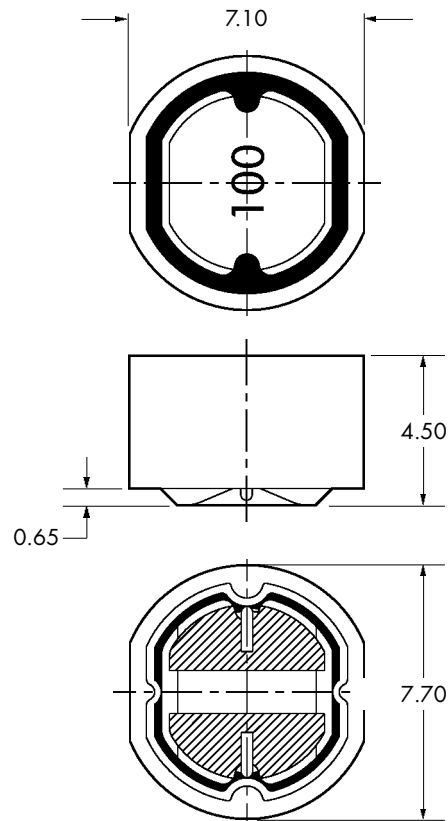


#### Recommended Footprint Details

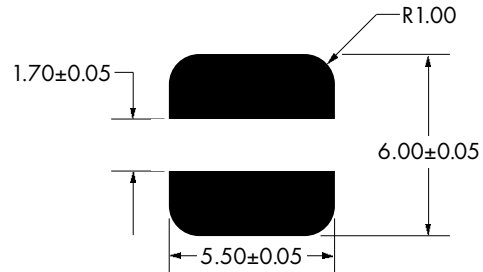


Unless otherwise stated all dimensions in mm  $\pm 0.35$ mm.  
Hatching represents solder pads.

### 2 - MECHANICAL DIMENSIONS (EMI SHIELDED TYPES)



#### Recommended Footprint Details



Unless otherwise stated all dimensions in mm  $\pm 0.35$ mm.  
Hatching represents solder pads.

### PACKAGE DETAILS

Order Code	TYP Weight (g)	Packaging Style
24XXX	0.43	Tape & Reel <sup>1</sup>
24SXXX	0.72	

<sup>1</sup> For tape and reel packaging details refer to datasheet NDCAN002

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**C&D Technologies (NCL) Ltd**  
Tanners Drive, Blakelands North  
Milton Keynes MK14 5BU, England  
Tel: +44 (0)1908 615232  
Fax: +44 (0)1908 617545  
email: [info@cdtechno-ncl.com](mailto:info@cdtechno-ncl.com)

**www: <http://www.dc-dc.com>**

**C&D Technologies (NCL), Inc.**  
5816 Creedmoor Road, Raleigh  
NC 27612, USA  
Tel: +1 (919) 571-9405  
Fax: +1 (919) 571-9262  
email: [info@us.cdtechno-ncl.com](mailto:info@us.cdtechno-ncl.com)

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