C&D TECHNOLOGIES
Power Solutions

2300 SERIES

Bobbin Wound Surface Mount Inductors

FEATURES

- Bobbin Format
- Up to 2.1A IDC
- 2.2µH to 220µH
- Low DC Resistance
- Surface Mounting
- Compact Size
- Tape and Reel Packaging
- Optional Integral EMI Shield

DESCRIPTION

The 2300 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)[1]

Order Code	Nominal Inductance µH 1kHz 100mV AC	Inductance Range µH 1kHz 100mV AC	DC Resistance Ω MAX	DC Current Continuous[2] A MAX	Package Style
232R2	2.2	1.7 - 2.8	0.029	2.10	1
233R3	3.3	2.3 - 3.9	0.044	1.80	
234R7	4.7	3.6 - 6.0	0.068	1.48	
236R8	6.8	5.1 - 8.6	0.102	1.22	
23100	10	7.6 - 12.7	0.138	1.02	
23150	15	11.3 - 18.9	0.210	0.86	
23220	22	16.8 - 28.1	0.285	0.74	
23330	33	24.6 - 41.0	0.497	0.64	
23470	47	34.6 - 57.6	0.683	0.55	
23680	68	51.0 - 85.0	0.838	0.49	
23101	100	74.2 - 124	1.281	0.43	

SELECTION GUIDE (EMI SHIELDED TYPES)[1]

Order Code	Nominal Inductance µH 1kHz 100mV AC	Inductance Range µH 1kHz 100mV AC	DC Resistance Ω MAX	DC Current Continuous[2] A MAX	Package Style
23S2R2	2.2	1.8 - 3.0	0.025	2.10	2
23S3R3	3.3	2.7 - 4.5	0.031	1.80	
23S4R7	4.7	3.8 - 6.4	0.044	1.60	
23S6R8	6.8	5.2 - 8.6	0.064	1.40	
23S100	10	7.5 - 12.6	0.087	1.18	
23S120	12	9.4 - 15.6	0.107	1.08	
23S150	15	11.4 - 19.0	0.131	0.96	
23S180	18	13.6 - 22.6	0.143	0.88	
23S220	22	16.0 - 26.7	0.175	0.80	
23S270	27	20.0 - 33.3	0.218	0.72	
23S330	33	24.4 - 40.7	0.241	0.65	
23S390	39	29.3 - 48.8	0.370	0.60	
23S470	47	34.6 - 57.7	0.460	0.54	
23S560	56	42.4 - 70.6	0.509	0.50	
23S680	68	50.9 - 84.9	0.641	0.45	
23S101	100	75.8 - 126	0.782	0.37	
23S151	150	112 - 187	1.190	0.30	
23S221	220	167 - 279	2.280	0.25	

ABSOLUTE MAXIMUM RATINGS

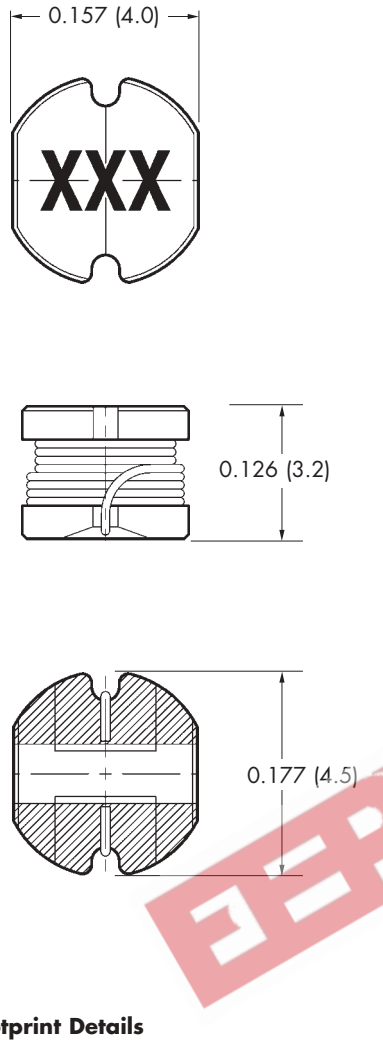
Operating free air temperature range	–40°C to 85°C
Storage temperature range	–40°C to 125°C

1 Specifications typical at T_A =25°C
2 The maximum DC current is the value at which the inductance falls to 75% of its nominal value or until its temperature rise reaches 40°C, whichever is sooner.
3 For tape and reel packaging details refer to datasheet NDC AN002.

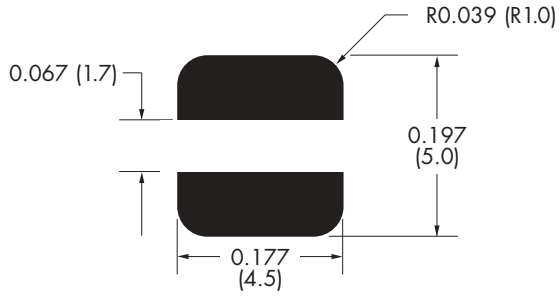
2300 SERIES

Bobbin Wound Surface Mount Inductors

1 – MECHANICAL DIMENSIONS (UNSHIELDED TYPES)

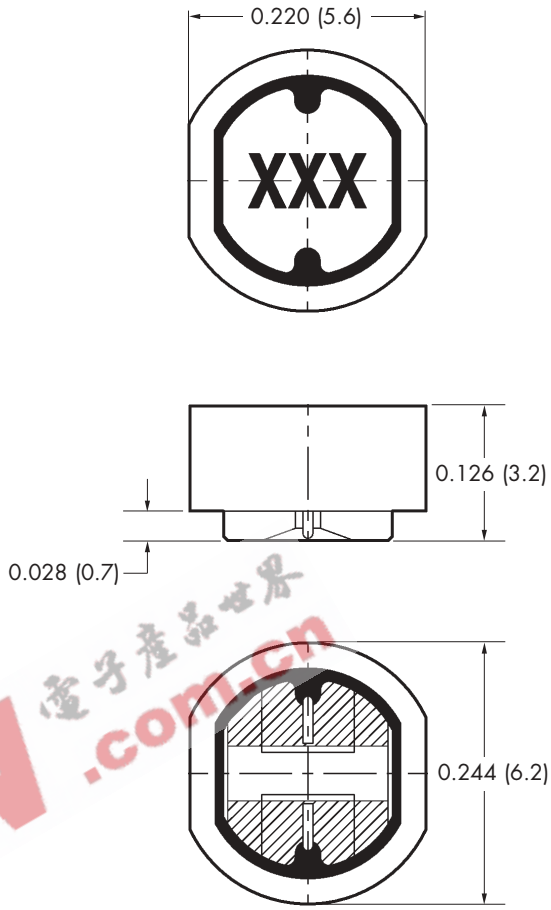


Recommended Footprint Details

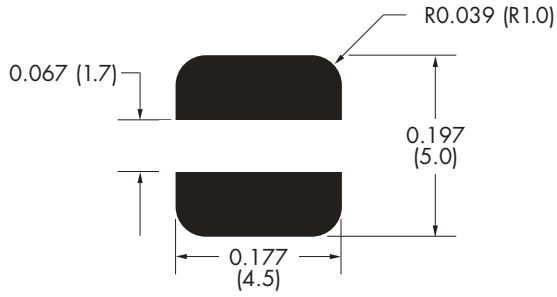


Weight: 0.20g
Unless otherwise stated all dimensions in inches (mm) ±0.1(0.25).
Hatching represents solder pads.

2 – MECHANICAL DIMENSIONS (EMI SHIELDED TYPES)



Recommended Footprint Details



Weight: 0.34g
Unless otherwise stated all dimensions in inches (mm) ±0.1(0.25).
Hatching represents solder pads.

Instructions for use are available from www.cdpoweronline.com

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

C&D Technologies Inc.
3400 E Britannia Drive, Tucson,
Arizona 85706, USA
Tel: +1 (800) 547-2537
Fax: +1 (520) 741-4598
email: sales@cdtechno.com

www.cdpoweronline.com

C&D TECHNOLOGIES
Power Solutions