



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

| | Nominal Inductance | Inductance Range | DC Resistance | DC Current Continuous ² | Package Style |
|--------------|------------------------|------------------------|---------------|------------------------------------|---------------|
| Order Code | µH 1kHz 100mV AC | µH 1kHz 100mV AC | Ω MAX | A MAX | |
| 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

| | Nominal Inductance | Inductance Range | DC Resistance | DC Current Continuous ² | Package Style |
|---------------|------------------------|------------------------|---------------|------------------------------------|---------------|
| Order Code | µH 1kHz 100mV AC | µH 1kHz 100mV AC | Ω MAX | A MAX | |
| 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

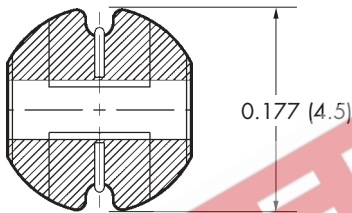
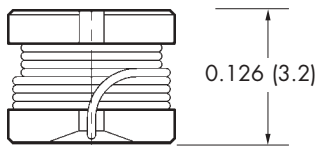
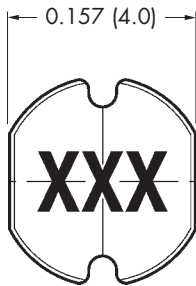
2 The maximum DC current is the value at which the inductance falls to 75% of its nominal value or until its temperature rise reaches 40°C, whichever is sooner.

3 For tape and reel packaging details refer to datasheet NDC AN002.

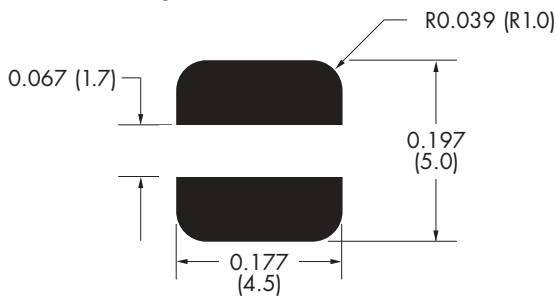
2300 SERIES

Bobbin Wound Surface Mount Inductors

1 – MECHANICAL DIMENSIONS (UNSHIELDED TYPES)

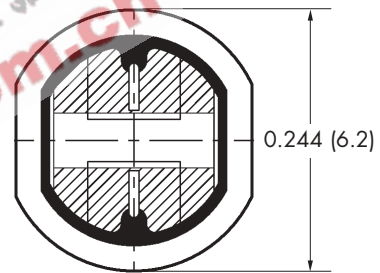
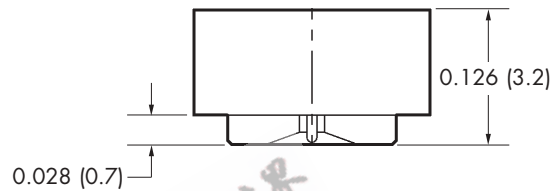
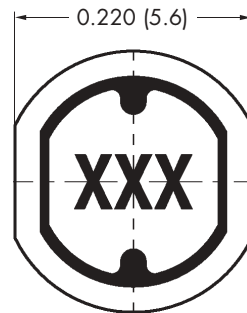


Recommended Footprint Details

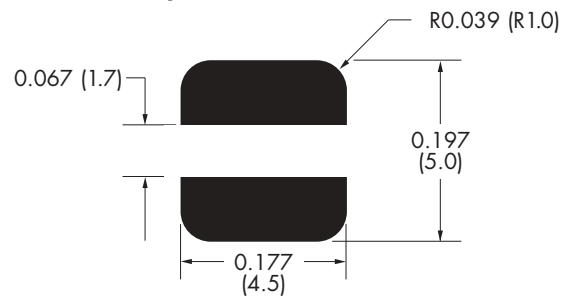


Weight: 0.20g
 Unless otherwise stated all dimensions in inches (mm) ± 0.1 (0.25).
 Hatching represents solder pads.

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.

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