



### FEATURES

- RoHS compliant
- Up to 3.1A I<sub>DC</sub>
- 2.7μH to 220μH
- Optional integral EMI shield
- Low R<sub>DC</sub>
- Surface mount
- Compact size
- Tape and reel packaging
- J-STD-020C reflow
- Backward compatible with Sn/Pb soldering systems

### 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)

Order Code	Inductance (1kHz, 100mV <sub>AC</sub> )	Inductance Range (1kHz, 100mV <sub>AC</sub> )	DC Current <sup>1</sup>	DC Resistance	SRF (100mV <sub>rms</sub> )
	Nom.	Min. - Max.	Max.	Max.	Nom.
	μH	μH	A	mΩ	MHz
242R7C	2.7	2.04 - 3.78	2.60	39	57.0
243R3C	3.3	2.44 - 4.54	2.40	42	53.0
244R7C	4.7	3.37 - 6.25	2.10	50	45.0
246R8C	6.8	5.03 - 9.34	1.75	61	37.0
24100C	10	8.00 - 12.0	1.44	100	27.8
24120C	12	8.54 - 15.9	1.36	100	26.0
24150C	15	12.0 - 18.0	1.30	120	22.0
24180C	18	13.0 - 24.1	1.26	150	20.0
24220C	22	17.6 - 26.4	1.11	180	16.5
24330C	33	28.1 - 34.7	0.88	230	13.1
24470C	47	40.8 - 54.1	0.72	370	10.9
24680C	68	61.2 - 74.8	0.61	460	9.38
24101C	100	90.0 - 110	0.52	700	7.03
24151C	150	135 - 165	0.40	1100	5.13
24221C	220	198 - 242	0.35	1570	4.24

### SELECTION GUIDE (SHIELDED TYPES)

Order Code	Inductance (1kHz, 100mV <sub>AC</sub> )	Inductance Range (1kHz, 100mV <sub>AC</sub> )	DC Current <sup>1</sup>	DC Resistance	SRF (100mV <sub>rms</sub> )
	Nom.	Min. - Max.	Max.	Max.	Nom.
	μH	μH	A	mΩ	MHz
24S2R7C	2.7	1.78 - 3.52	3.10	28	79.0
24S3R3C	3.3	2.07 - 4.68	2.80	32	63.0
24S4R7C	4.7	2.82 - 6.01	2.39	37	52.0
24S6R8C	6.8	4.40 - 9.17	2.00	45	39.0
24S100C	10	8.50 - 12.5	1.64	70	25.6
24S120C	12	7.65 - 15.2	1.50	74	29.0
24S150C	15	12.8 - 18.8	1.34	90	19.7
24S180C	18	11.1 - 22.7	1.22	91	23.0
24S220C	22	18.7 - 27.5	1.10	120	15.7
24S330C	33	28.1 - 41.3	0.90	190	11.2
24S470C	47	40.0 - 58.8	0.75	240	10.2
24S680C	68	57.8 - 85.0	0.63	370	8.09
24S101C	100	85.0 - 120	0.52	540	6.2
24S151C	150	128 - 180	0.42	860	4.88
24S221C	220	187 - 264	0.35	1310	3.58

### ABSOLUTE MAXIMUM RATINGS

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

### SOLDERING INFORMATION<sup>2</sup>

Peak reflow temperature	250°C
Pin finish	Hot dipped tin

Specifications typical at T<sub>a</sub> = 25°C

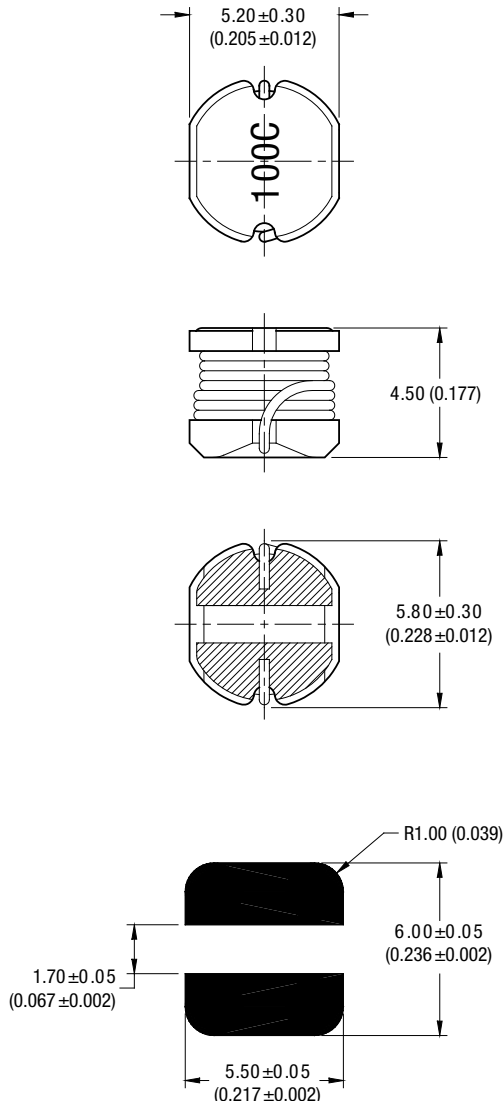
1 The maximum DC current is the value at which the inductance falls to 80% of its nominal value or when its temperature rise reaches 40°C, whichever is sooner.

2 For further information, please visit [www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)



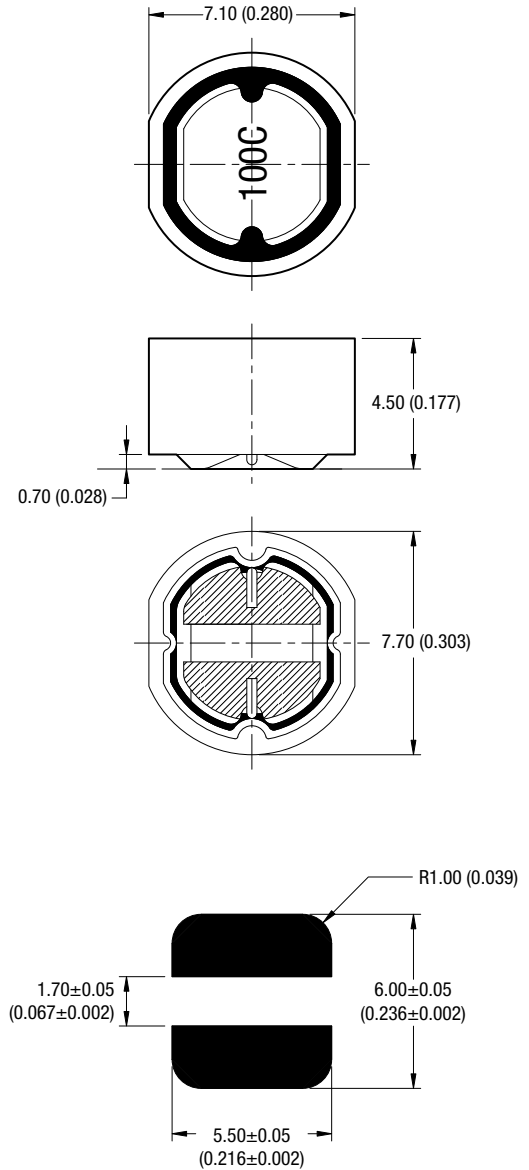
**MECHANICAL DIMENSIONS**

**UNSHIELDED TYPES**



Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01). Package Weight 0.43g Typ.

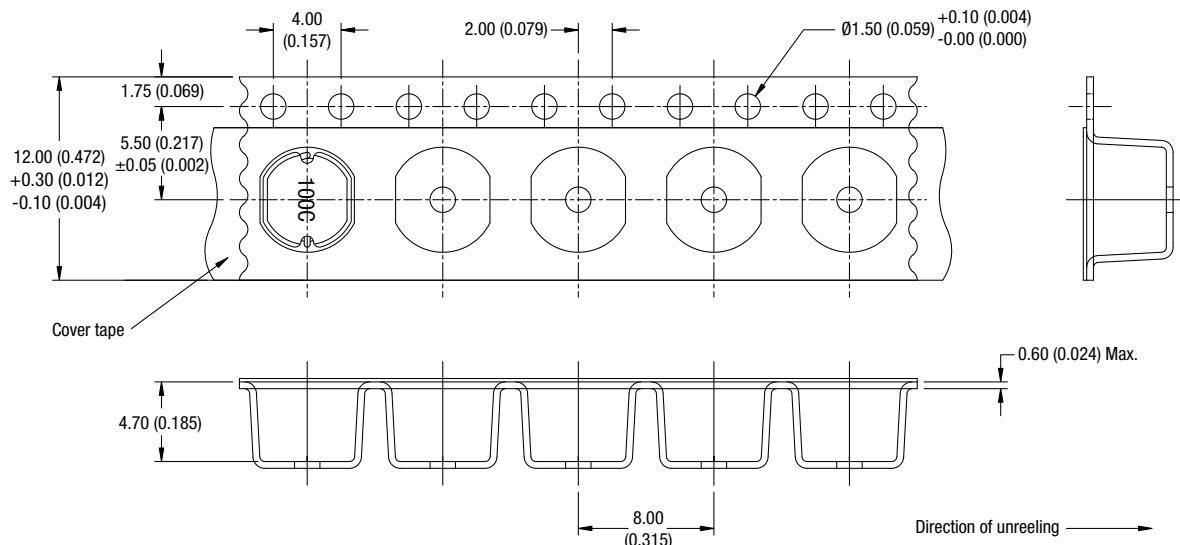
**SHIELDED TYPES**



Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01). Package Weight 0.72g Typ.

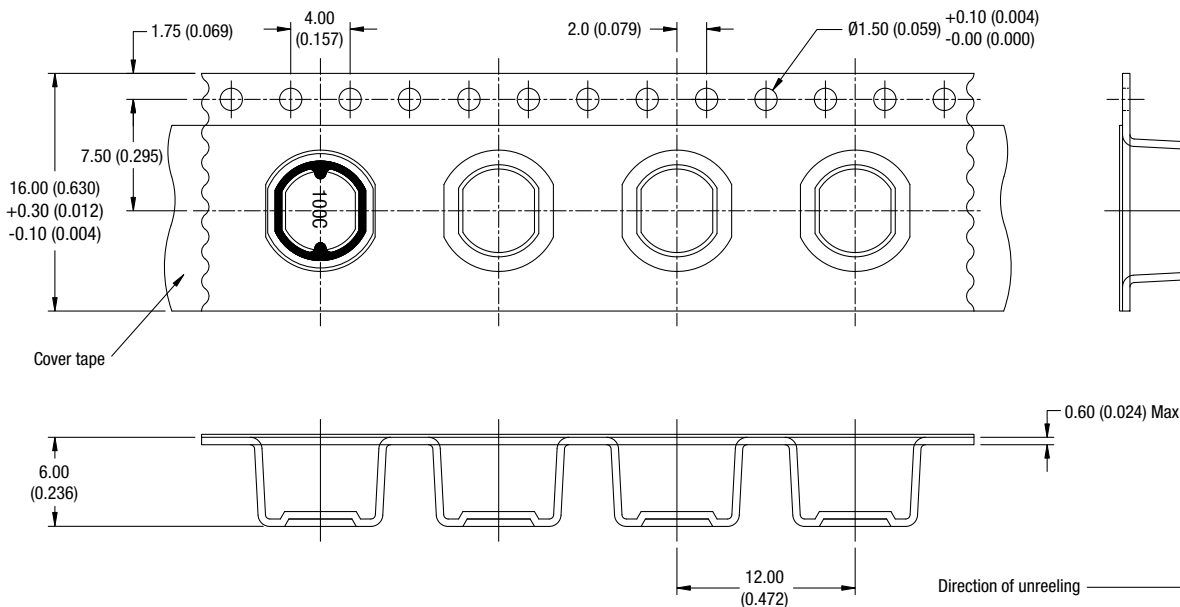
## TAPE & REEL SPECIFICATIONS

### TAPE OUTLINE DIMENSIONS - UNSHIELDED PARTS



Reel quantity: 1500  
All dimensions in mm (inches)

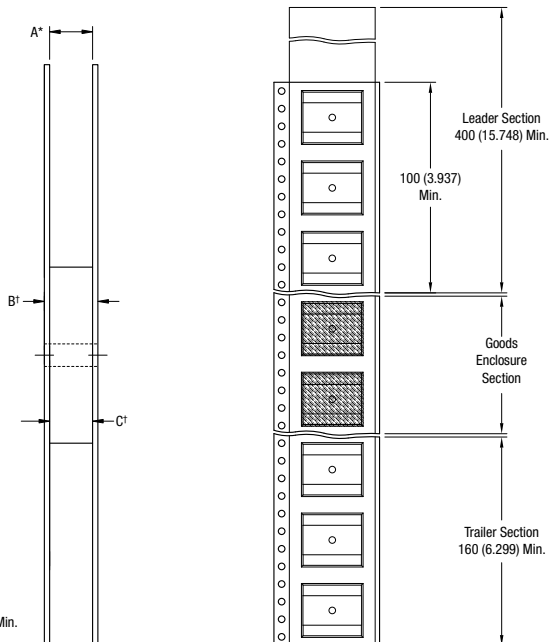
### TAPE OUTLINE DIMENSIONS - SHIELDED PARTS



Reel quantity: 1000  
All dimensions in mm (inches)

**TAPE & REEL SPECIFICATIONS**

**REEL OUTLINE DIMENSIONS**



All dimension in mm [inches]  
 \* Includes flange distortion at outer edge  
 † Measured at hub

	A	B (Max.)	C
Unshielded Types	11.9-15.4 (0.469-0.606)	18.4 (0.724)	12.4-12.6 (0.488-0.496)
Shielded Types	15.9-19.4 (0.626-0.764)	22.4 (0.882)	16.4-16.6 (0.646-0.654)