



## FEATURES

- RoHS compliant
- Up to 3A I<sub>DC</sub>
- 0.42μH to 100μH
- Low R<sub>DC</sub>
- Small footprint
- Ultra-low profile
- UL 94V-0 packaging materials
- J-STD-020D reflow
- Custom inductance values available

## PRODUCT OVERVIEW

The 8300 series is a range of miniature, surface-mount power inductors. They are designed for use in power applications with restricted PCB space and height, such as handheld devices, DC-DC converters and notebook computers. The products are supplied in tape and reel for high-volume, automated surface-mount assembly.

## SELECTION GUIDE

Order Code	Inductance <sup>3</sup>	DC Current <sup>2</sup>	Saturation Current	DC Resistance
	±20% μH	Max. A	Typ. A	Max. mΩ
<b>83421C</b>	0.42	3.00	5.69	24
<b>83751C</b>	0.75	2.70	4.55	30
<b>83122C</b>	1.2	1.70	3.36	65
<b>83172C</b>	1.7	1.55	2.71	73
<b>83232C</b>	2.3	1.40	2.35	86
<b>83332C</b>	3.3	1.35	1.79	98
<b>83472C</b>	4.7	1.10	1.66	130
<b>83682C</b>	6.8	0.95	1.30	150
<b>83852C</b>	8.5	0.85	1.15	167
<b>83103C</b>	10	0.75	1.04	185
<b>83153C</b>	15	0.60	0.85	300
<b>83223C</b>	22	0.50	0.74	350
<b>83333C</b>	33	0.42	0.59	600
<b>83473C</b>	47	0.35	0.48	710
<b>83683C</b>	68	0.30	0.41	850
<b>83823C</b>	82	0.27	0.37	1250
<b>83104C</b>	100	0.24	0.34	1320

## ABSOLUTE MAXIMUM RATINGS

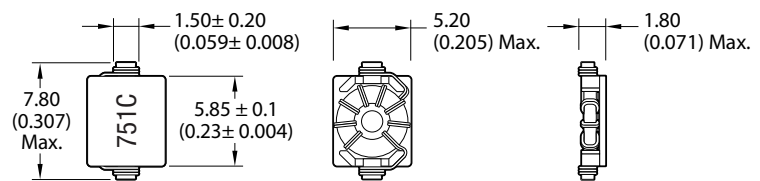
Operating free air temperature range	-40°C to 85°C
Storage temperature range	-40°C to 150°C

## SOLDERING INFORMATION<sup>1</sup>

Peak reflow solder temperature	260°C
Pin finish	Tin
Moisture sensitivity level <sup>4</sup>	1

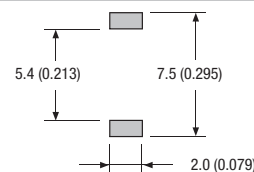
## PACKAGE SPECIFICATIONS

### Mechanical Dimensions



Package weight: 0.13g Typ.

### Recommended Pad Layout



All dimensions in mm (inches)

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

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

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

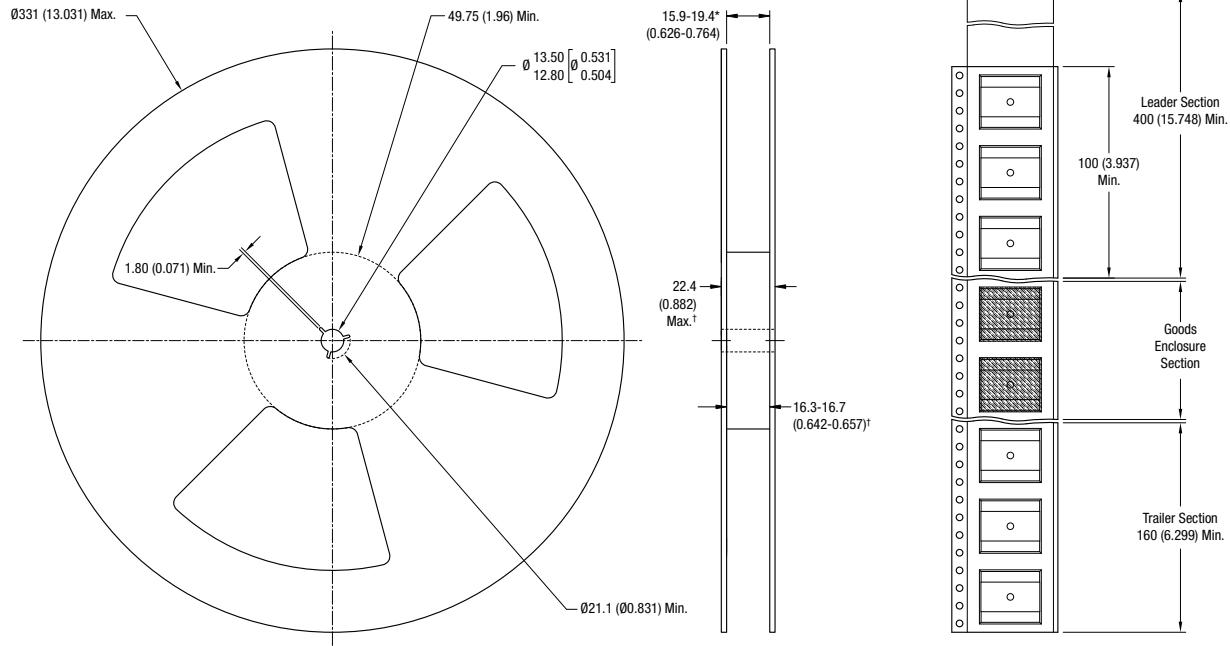
3 Quoted inductance values are stated with no load.

4 Representative samples of the product were subjected to the conditioning described in IPC/JEDEC J-STD-020D and passed electrical testing, package coplanarity and visual inspection which revealed no external cracks or changes in package body flatness.



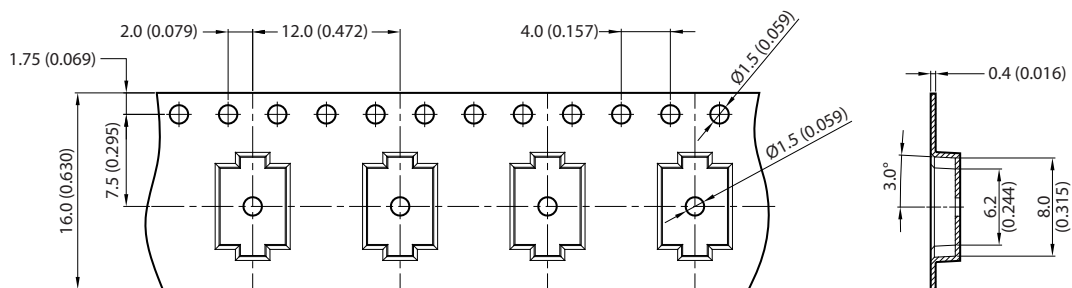
**PACKAGE SPECIFICATIONS**

**Mechanical Dimensions**



All dimension in mm [inches]

**Tape Outline Dimensions**



Reel quantity: 2200  
Unless otherwise stated, all dimensions in mm (inches).

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ISO 9001 and 14001 REGISTERED

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