



FEATURES

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

ABSOLUTE MAXIMUM RATINGS

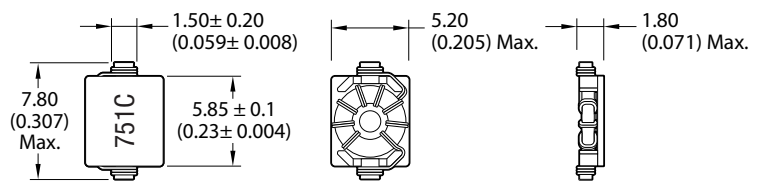
Operating free air temperature range	-40°C to 85°C
Storage temperature range	-40°C to 150°C

SOLDERING INFORMATION¹

Peak reflow solder temperature	260°C
Pin finish	Tin
Moisture sensitivity level ⁴	1

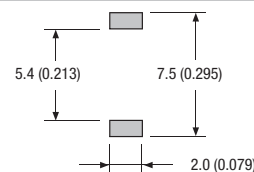
PACKAGE SPECIFICATIONS

Mechanical Dimensions



Package weight: 0.13g Typ.

Recommended Pad Layout



All dimensions in mm (inches)

Specifications typical at T_A = 25°C

1 For further information, please visit 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.

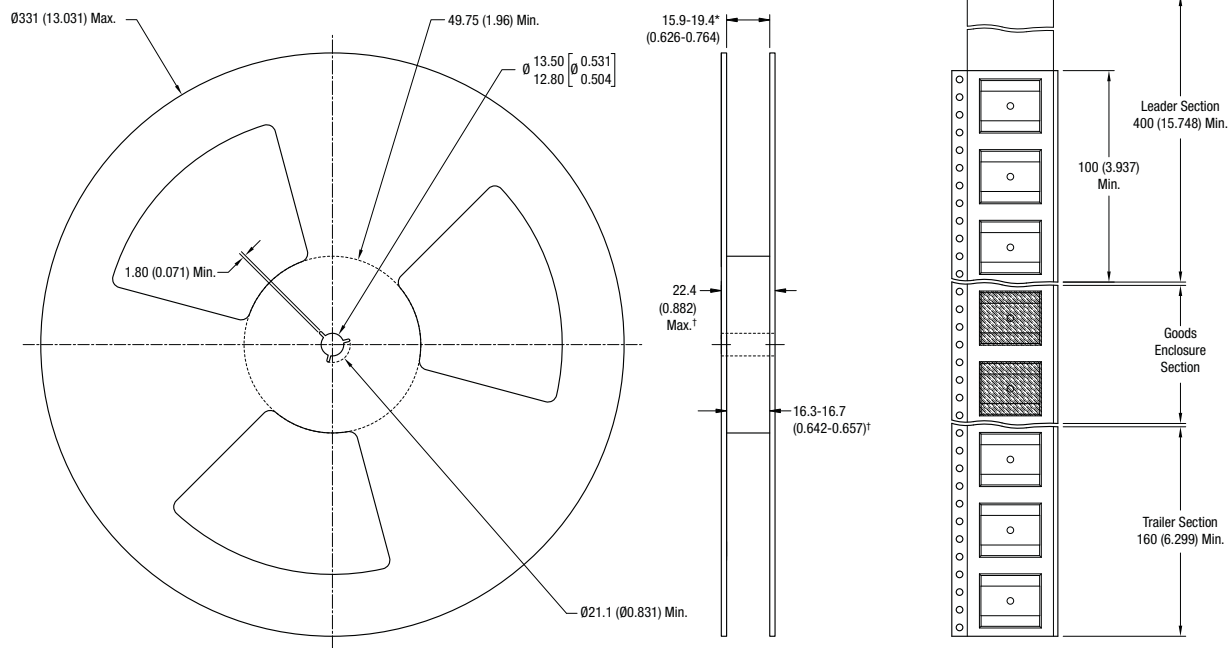
3 Quoted inductance values are stated with no load.

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.



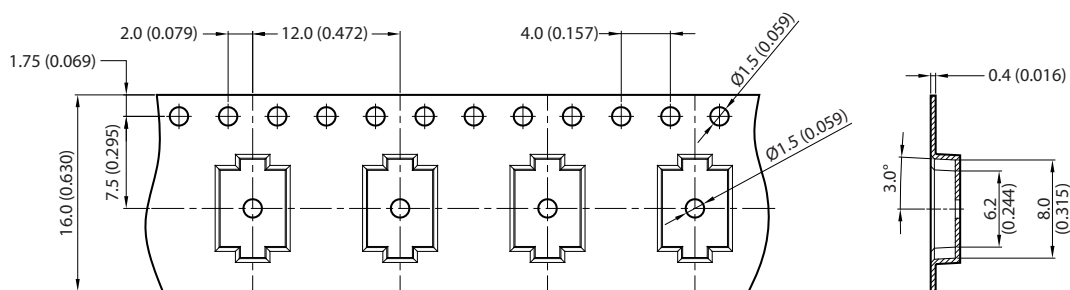
PACKAGE SPECIFICATIONS

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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