

FEATURES

- RoHS compliant
- Up to 2.8A I_{DC}
- 1.0μH to 2.2mH
- Low R_{DC}
- Small footprint
- Ultra-low profile
- UL 94V-0 packaging materials
- J-STD-020C reflow
- Custom inductance values available

PRODUCT OVERVIEW

The 8400 series is a range of miniature, surface-mount, I-core power inductors. They are designed for use in power applications with restricted PCB space and height, such as ExpressCard™ technology, 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, L	DC Current ²	DC Resistance
	±10%	Max.	Max.
	μH	A	Ω
84102C	1.0±20%	2.80	0.08
84132C	1.3±20%	2.50	0.08
84222C	2.2±20%	2.00	0.09
84332C	3.3±20%	1.50	0.12
84472C	4.7±20%	1.30	0.15
84682C	6.8±20%	1.05	0.20
84103C	10	0.95	0.24
84153C	15	0.75	0.45
84223C	22	0.60	0.60
84333C	33	0.55	0.86
84473C	47	0.42	1.1
84683C	68	0.38	1.6
84104C	100	0.30	2.0
84154C	150	0.25	3.2
84224C	220	0.20	4.6
84334C	330	0.17	6.5
84474C	470	0.14	8.5
84684C	680	0.12	11.5
84105C	1000	0.09	18.0
84155C	1500	0.08	27.0
84225C	2200	0.05	45

ABSOLUTE MAXIMUM RATINGS

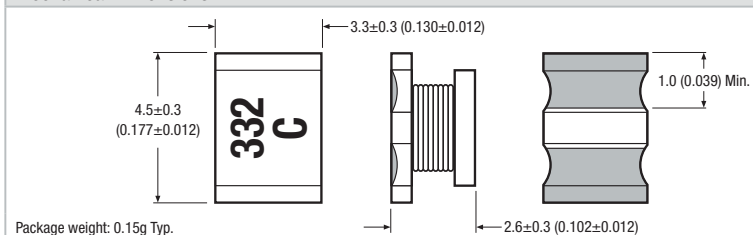
Operating free air temperature range	-40°C to 125°C
Storage temperature range	-40°C to 150°C

SOLDERING INFORMATION¹

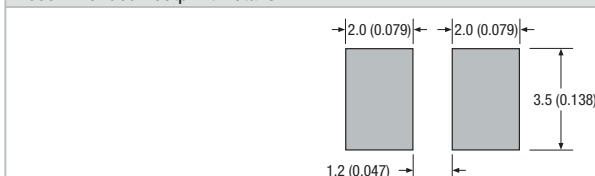
Peak reflow solder temperature	250°C
Pin finish	SAC 305
Moisture sensitivity level	1

PACKAGE SPECIFICATIONS

Mechanical Dimensions



Recommended Footprint Details



All dimensions in mm (inches)

Specifications typical at T_A = 25°C

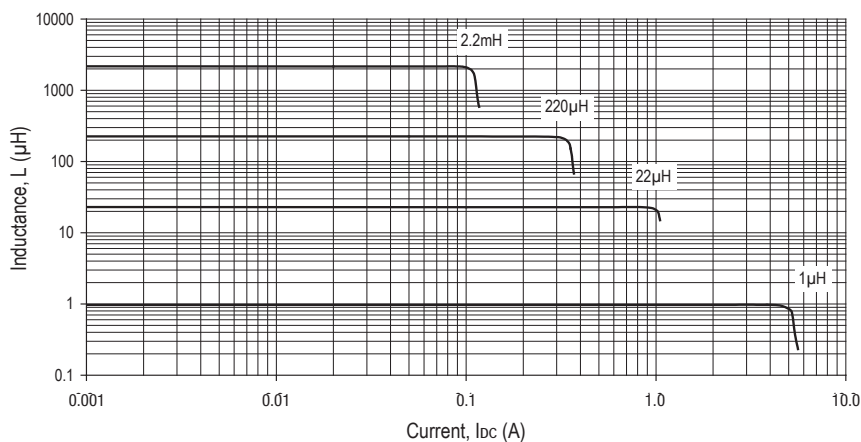
1 For further information, please visit www.murata-ps.com/rohs

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.

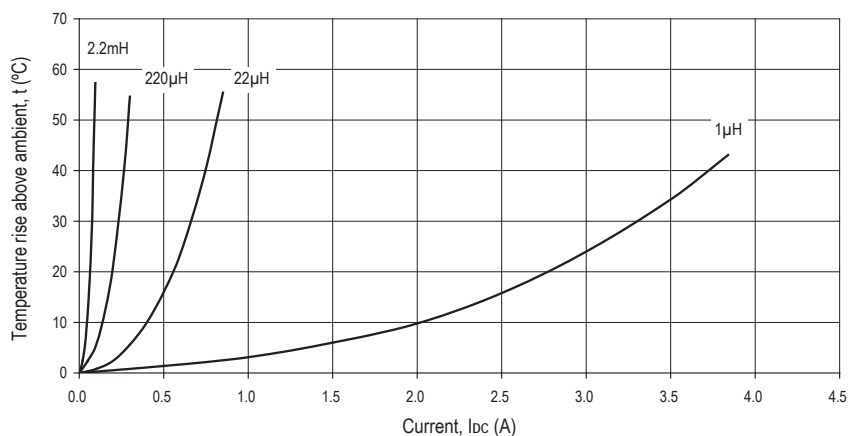


For full details go to
www.murata-ps.com/rohs

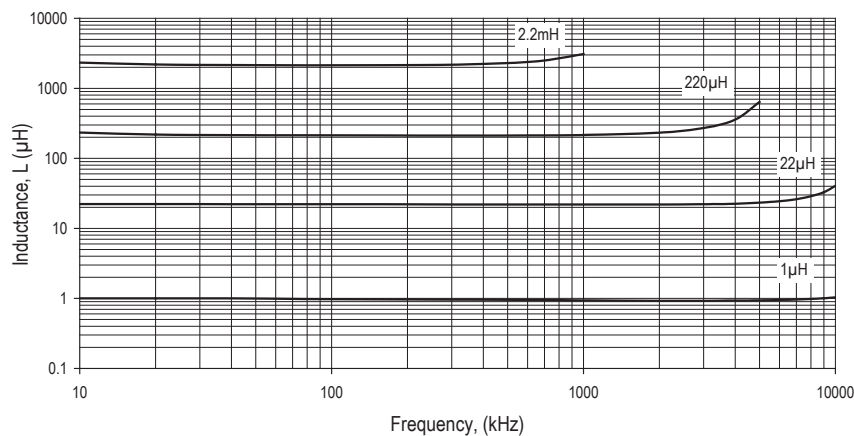
INDUCTANCE Vs CURRENT



TEMPERATURE Vs CURRENT

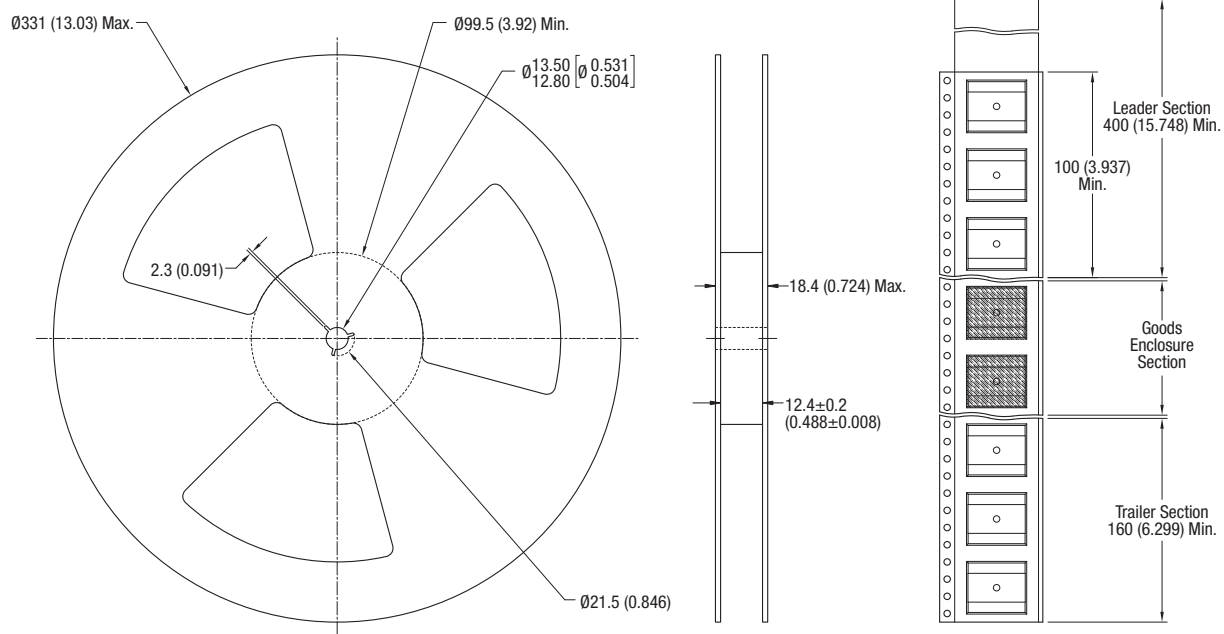


INDUCTANCE Vs FREQUENCY



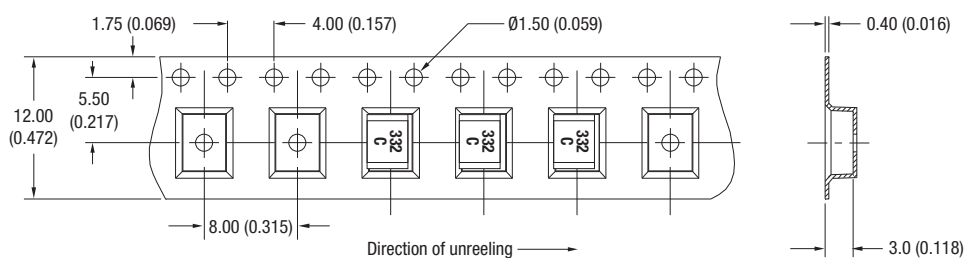
PACKAGE SPECIFICATIONS

Mechanical Dimensions



All dimension in mm [inches]

Tape Outline Dimensions



Reel quantity: 2000
Unless otherwise stated, all dimensions in mm (inches).

DISCLAIMER

Unless otherwise stated in the datasheet, all products are designed for standard commercial and industrial applications and NOT for safety-critical and/or life-critical applications.

Particularly for safety-critical and/or life-critical applications, i.e. applications that may directly endanger or cause the loss of life, inflict bodily harm and/or loss or severe damage to equipment/property, and severely harm the environment, a prior explicit written approval from Murata is strictly required. Any use of Murata standard products for any safety-critical, life-critical or any related applications without any prior explicit written approval from Murata shall be deemed unauthorised use.

These applications include but are not limited to:

- Aircraft equipment
- Aerospace equipment
- Undersea equipment
- Power plant control equipment
- Medical equipment
- Transportation equipment (automobiles, trains, ships, etc.)
- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Data Processing equipment

Murata makes no express or implied warranty, representation, or guarantee of suitability, fitness for any particular use/purpose and/or compatibility with any application or device of the buyer, nor does Murata assume any liability whatsoever arising out of unauthorised use of any Murata product for the application of the buyer. The suitability, fitness for any particular use/purpose and/or compatibility of Murata product with any application or device of the buyer remain to be the responsibility and liability of the buyer.

Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous consequences of failures, monitor failures and their consequences, lessen the likelihood of failures that might cause harm, and take appropriate remedial actions. Buyer will fully indemnify and hold Murata, its affiliated companies, and its representatives harmless against any damages arising out of unauthorised use of any Murata products in any safety-critical and/or life-critical applications.

Remark: Murata in this section refers to Murata Manufacturing Company and its affiliated companies worldwide including, but not limited to, Murata Power Solutions.



This product is subject to the following [operating requirements](https://www.murata.com/en-eu/products/power/requirements) and the [Life and Safety Critical Application Sales Policy](https://www.murata.com/en-eu/products/power/requirements):

Refer to: <https://www.murata.com/en-eu/products/power/requirements>

Murata Power Solutions (Milton Keynes) Ltd. makes no representation that the use of its products in the circuits described herein, or the use of other technical information contained herein, will not infringe upon existing or future patent rights. The descriptions contained herein do not imply the granting of licenses to make, use, or sell equipment constructed in accordance therewith. Specifications are subject to change without notice.

© 2021 Murata Power Solutions (Milton Keynes) Ltd.