Murata Power Solutions

8200 Series

Miniature Surface Mount Power Inductors



FEATURES

- RoHS compliant
- Up to 2.0A I_{DC}
- 1.0µH to 470µH
- Ultra low profile
- Low R_{DC}
- Tape and reel packaging
- J-STD-020C reflow
- Backward compatible with Sn/Pb soldering systems

DESCRIPTION

The 8200 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		Idc (Max.)[1]	Q Factor		SRF (Typ.)	Rdc (Max.)
	0.1V @ 10KHz	Tolerance					
	µH	%	A	Q (Min.)	at frequency	MHz	Ω
82102C	1.0	±20%	2.0	18	1MHz	133	0.058
82152C	1.5	±20%	1.4	18	1MHz	103	0.068
82222C	2.2	±20%	1.1	18	1MHz	85	0.104
82332C	3.3	±20%	0.95	18	1MHz	67	0.138
82472C	4.7	±20%	0.80	20	1MHz	58	0.190
82682C	6.8	±20%	0.64	20	1MHz	46	0.270
82103C	10	±10%	0.50	35	1MHz	38	0.400
82153C	15	±10%	0.40	35	1MHz	31	0.560
82223C	22	±10%	0.32	35	1MHz	25	0.920
82333C	33	±10%	0.27	40	1MHz	20	1.30
82473C	47	±10%	0.25	40	1MHz	17	1.69
82683C	68	±10%	0.20	40	1MHz	15	2.55
82104C	100	±10%	0.16	40	800k	13	3.5
82154C	150	±10%	0.13	40	800k	11	5.9
82224C	220	±10%	0.10	40	800k	10	8.0
82334C	330	±10%	0.08	40	800k	9	13.5
82474C	470	±10%	0.07	50	800k	9	16.8

ABSOLUTE MAXIMUM RATINGS

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

SOLDERING INFORMATION[2]

Peak reflow temperature	260˚C
Pin finish	Reflowed SAC305

Specifications typical at T_A = 25°C

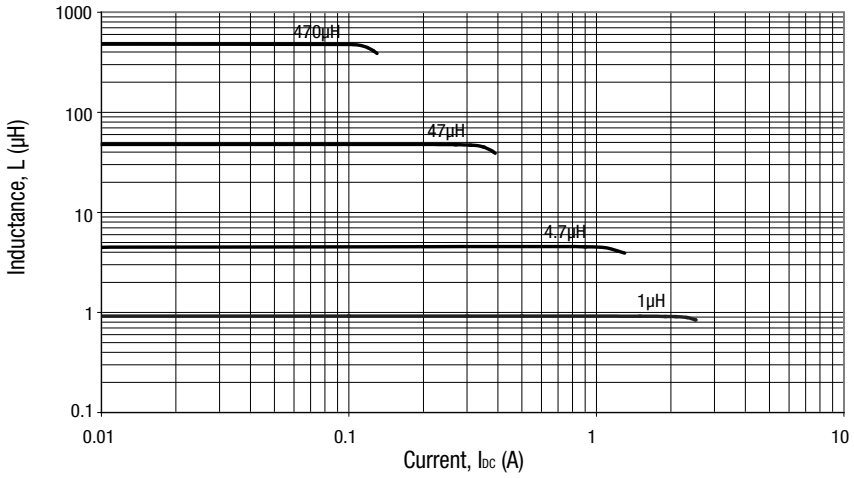
1 The maximum DC current occurs when either the inductance falls to 75% of its nominal value or when its temperature rise reaches 40°C, whichever is sooner.

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

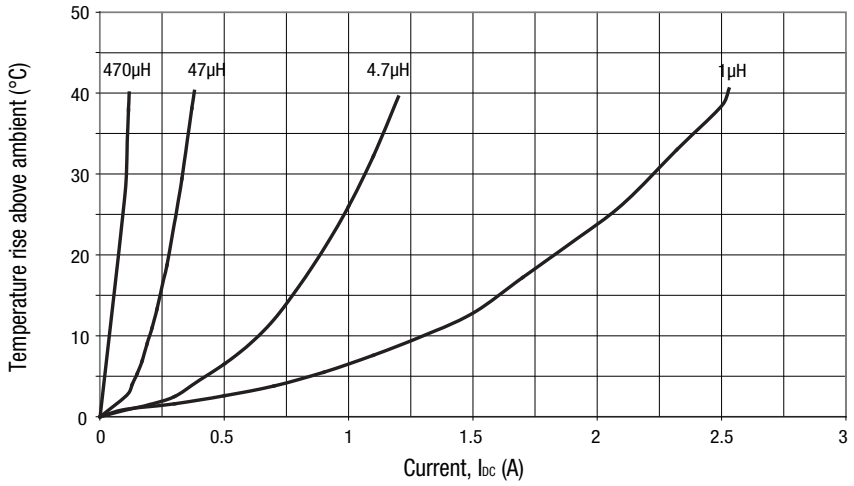
RoHS COMPLIANT 2002/95/EC

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

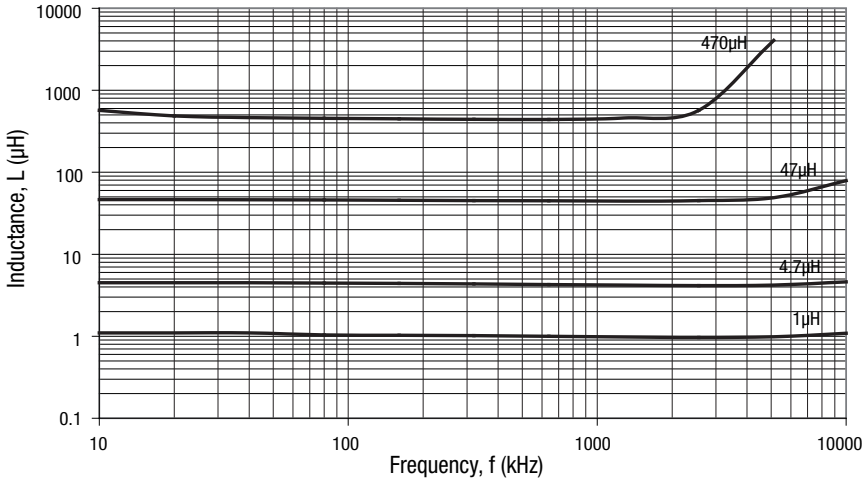
INDUCTANCE Vs CURRENT



TEMPERATURE Vs CURRENT

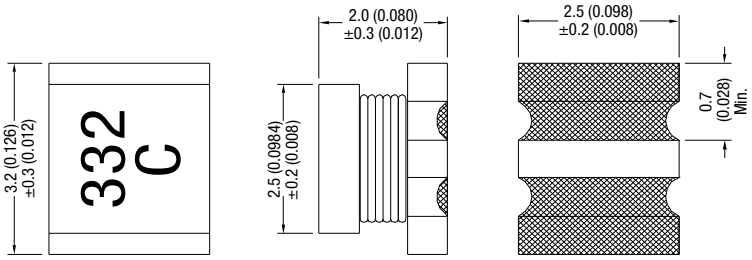


INDUCTANCE Vs FREQUENCY



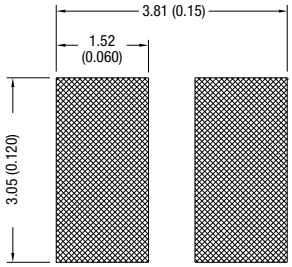
PACKAGE SPECIFICATIONS

MECHANICAL DIMENSIONS



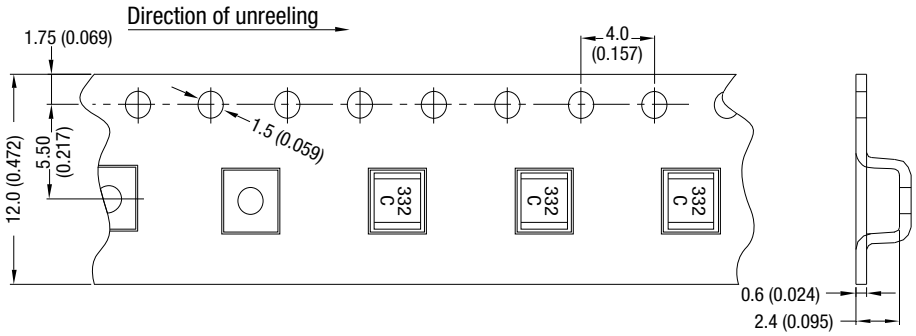
Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01).
Package Weight 0.06g Typ.

RECOMMENDED FOOTPRINT



Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01).

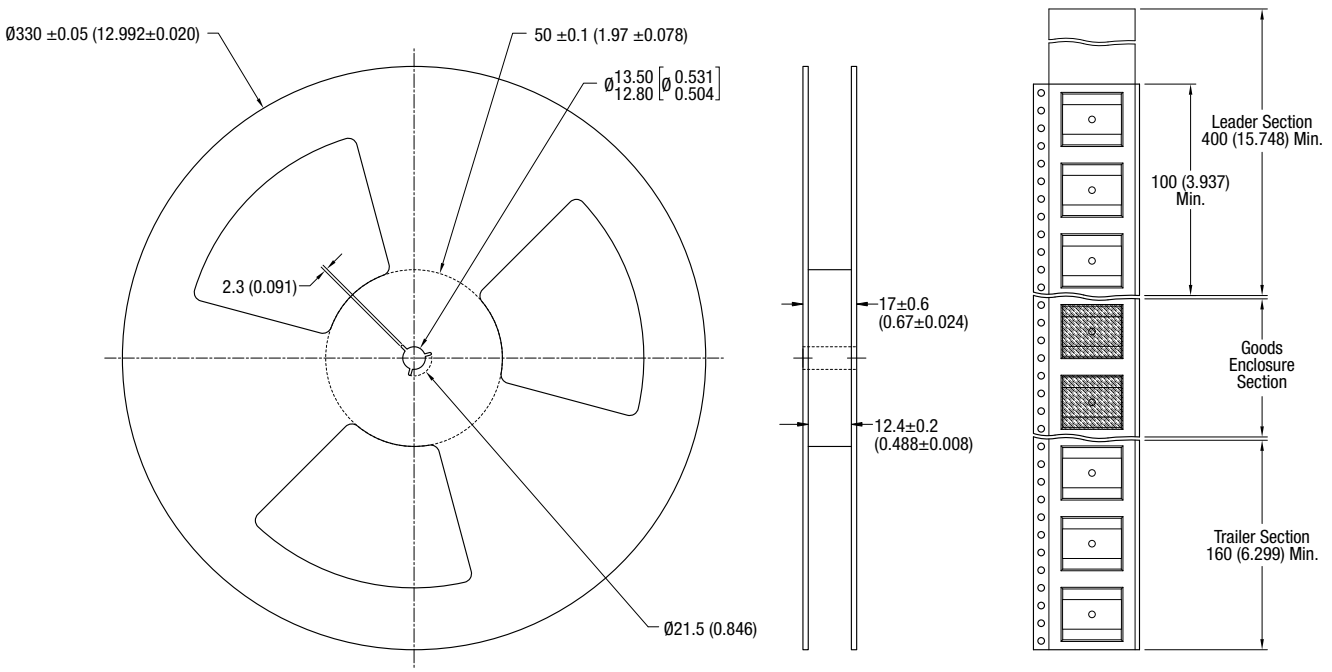
TAPE OUTLINE DIMENSIONS



Reel Quantity: 2500
Unless otherwise stated all dimensions in mm (inches)

PACKAGE SPECIFICATIONS (continued)

REEL OUTLINE DIMENSIONS



All dimension in mm [inches]
Tape and reel specifications conform with international standards EIA-481-C

Murata Power Solutions

Murata Power Solutions, Inc.
11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A.
Tel: (508) 339-3000 (800) 233-2765 Fax: (508) 339-6356
www.murata-ps.com email: sales@murata-ps.com ISO 9001 REGISTERED

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USA: Mansfield (MA), Tel: (800) 233 2765, email: sales@murata-ps.com
Canada: Toronto, Tel: (866) 740 1232, email: toronto@murata-ps.com
UK: Milton Keynes, Tel: +44 (0)1908 615232, email: mk@murata-ps.com
France: Montigny Le Bretonneux, Tel: +33 (0)1 34 60 01 01, email: france@murata-ps.com
Germany: München, Tel: +49 (0)89-544334-0, email: ped.munich@murata-ps.com
Japan: Tokyo, Tel: 3-3779-1031, email: sales_tokyo@murata-ps.com
Osaka, Tel: 6-6354-2025, email: sales_osaka@murata-ps.com
Website: www.murata-ps.jp
China: Shanghai, Tel: +86 215 027 3678, email: shanghai@murata-ps.com
Guangzhou, Tel: +86 208 221 8066, email: guangzhou@murata-ps.com