



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 | | I _{dc} (Max.) ¹ | Q Factor | | SRF (Typ.) | R _{dc} (Max.) |
|------------|---------------|-----------|-------------------------------------|----------|--------------|------------|------------------------|
| | 0.1V @ 10KHz | Tolerance | | Q (Min.) | at frequency | | |
| | μH | % | A | | 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 INFORMATION²

| | |
|-------------------------|-----------------|
| Peak reflow temperature | 260°C |
| Pin finish | Reflowed SAC305 |

Specifications typical at T_a = 25°C

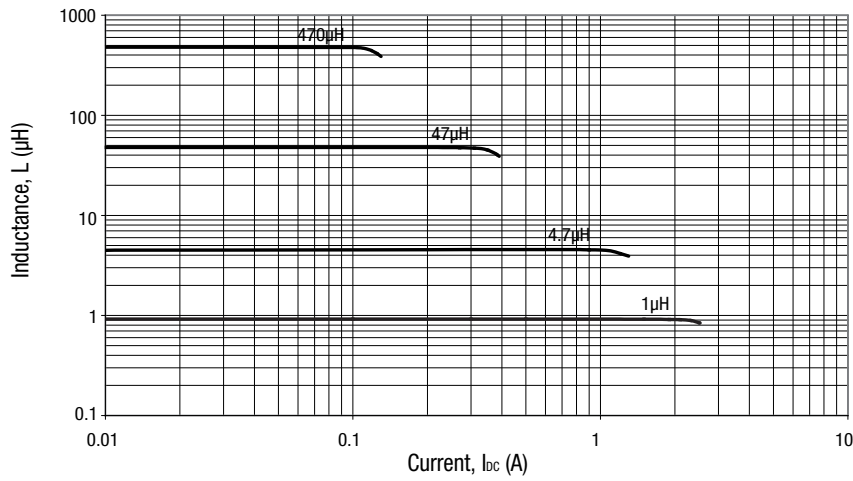
- 1 The maximum DC current occurs when either the inductance falls to 75% of its nominal value or when its temperature rise reaches 40°C, whichever is sooner.
- 2 For further information, please visit www.murata-ps.com/rohs



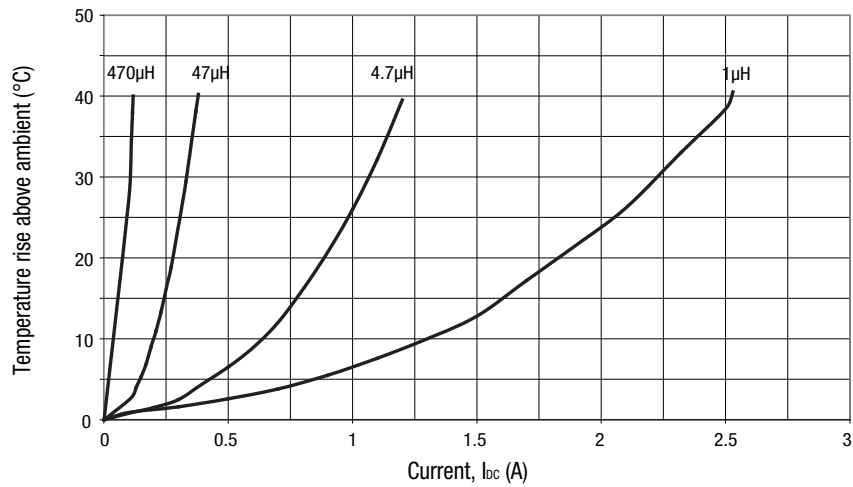
For full details go to
www.murata-ps.com/rohs



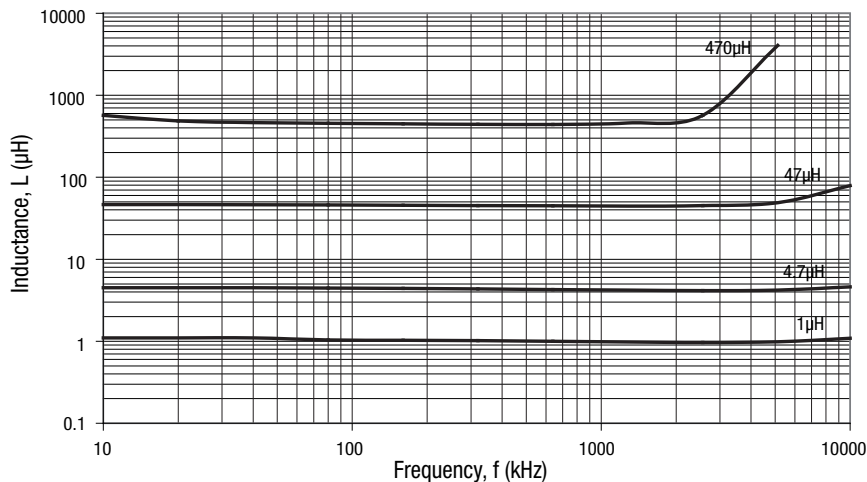
INDUCTANCE Vs CURRENT



TEMPERATURE Vs CURRENT

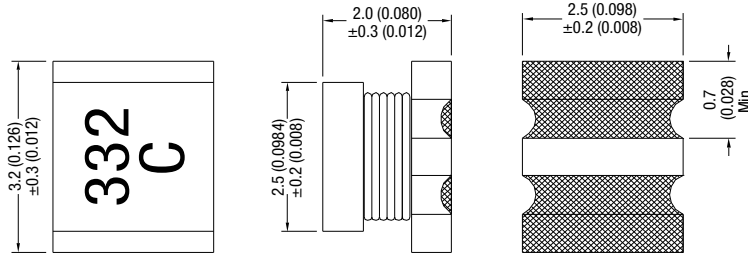


INDUCTANCE Vs FREQUENCY



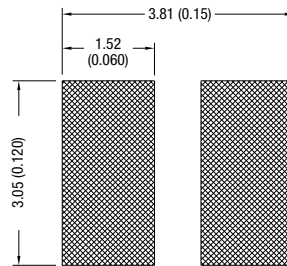
PACKAGE SPECIFICATIONS

MECHANICAL DIMENSIONS



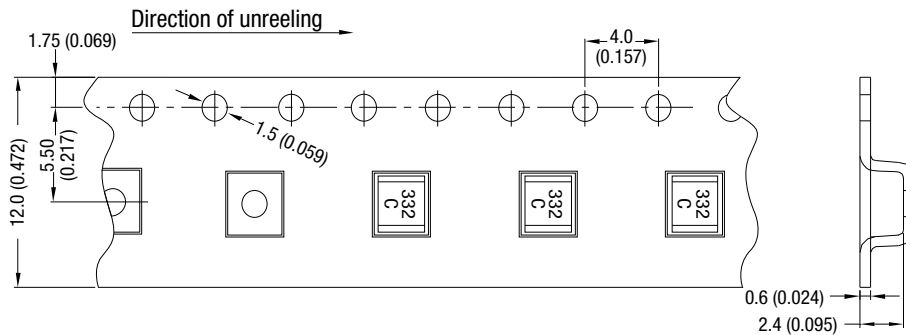
Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01).
 Package Weight 0.06g Typ.

RECOMMENDED FOOTPRINT



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

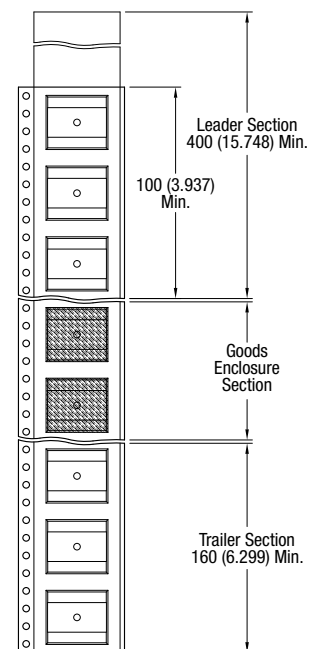
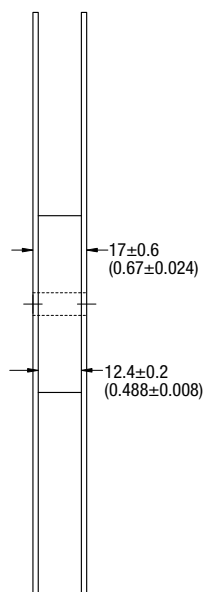
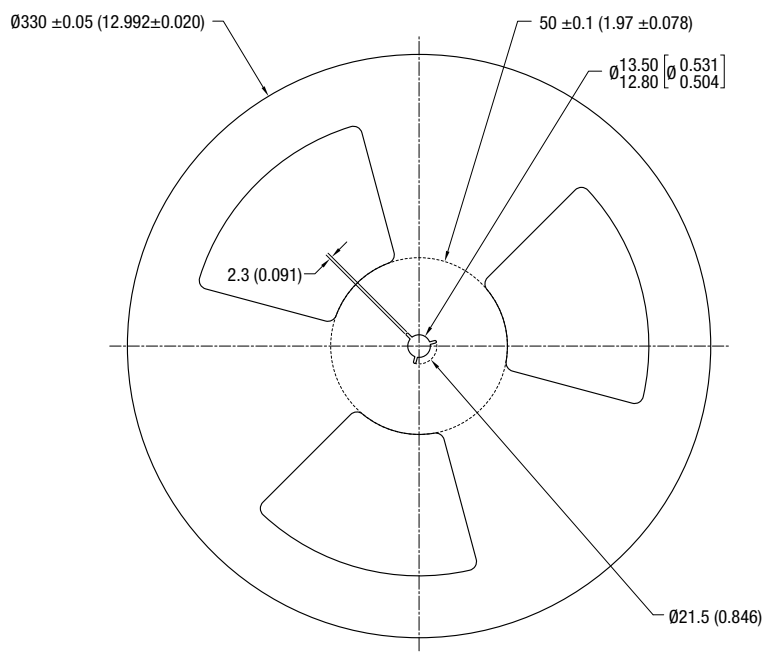
TAPE OUTLINE DIMENSIONS



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