

## FEATURES

- Low-profile surface-mount design
- Inductance Range from 80nH to 200nH
- Rated current up to 57A<sub>pk</sub>
- Materials meet UL94V-0
- Custom inductance values available
- RoHS compliant
- J-STD-020 D.1 reflow

## PRODUCT OVERVIEW

The 3000A series are a range of high-current, surface-mount bead inductors, suited to a variety of applications. The products are designed for noise suppression in high-frequency, high-current switching power supplies, DC-DC converters, DC-AC inverters and VRMs.

# 3000A Series

Surface Mount Power Inductor

## SELECTION GUIDE

| Order Code | Inductance (1MHz, 0.1V) |                        | I <sub>DC</sub> <sup>3</sup> | I <sub>SAT</sub> (Typ.) <sup>4</sup> |       | DC Resistance |      |
|------------|-------------------------|------------------------|------------------------------|--------------------------------------|-------|---------------|------|
|            | ±20%                    | Typ. @ I <sub>DC</sub> |                              | 25°C                                 | 100°C | Typ.          | Max. |
|            | nH                      | nH                     | A                            | A                                    | A     | mΩ            | mΩ   |
| 30800AC    | 80                      | 82                     | 37                           | 57                                   | 47    | 0.19          | 0.35 |
| 30101AC    | 97                      | 105                    | 36                           | 48                                   | 41    | 0.20          | 0.35 |
| 30151AC    | 145                     | 120                    | 29                           | 33                                   | 29    | 0.19          | 0.35 |
| 30201AC    | 191                     | 162                    | 22                           | 24                                   | 22    | 0.21          | 0.35 |

## ABSOLUTE MAXIMUM RATINGS

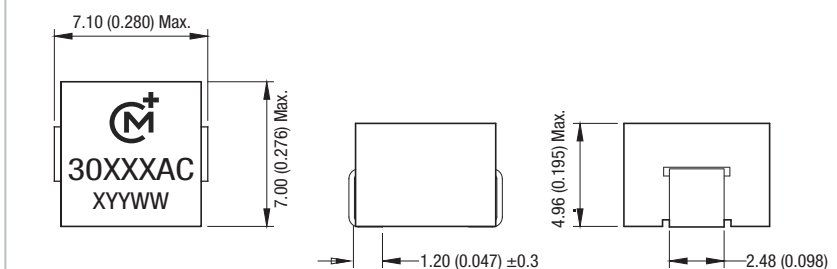
|                             |                 |
|-----------------------------|-----------------|
| Operating temperature range | -40°C to +130°C |
| Storage temperature range   | -40°C to +155°C |

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

|                                         |        |
|-----------------------------------------|--------|
| Peak reflow solder temperature          | 250°C  |
| Pin finish                              | SAC305 |
| Moisture sensitivity level <sup>2</sup> | 1      |

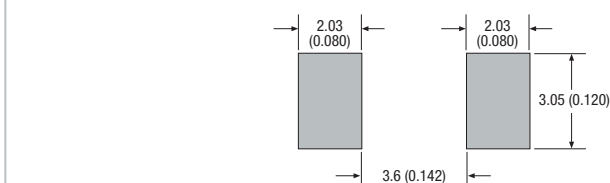
## Mechanical Dimensions

### Mechanical Dimensions



Weight Typ. = 0.94g

### Recommended Pad Layout



Unless otherwise stated, all dimensions in mm (inches) ± 0.25 (0.010).



For full details go to  
[www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

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

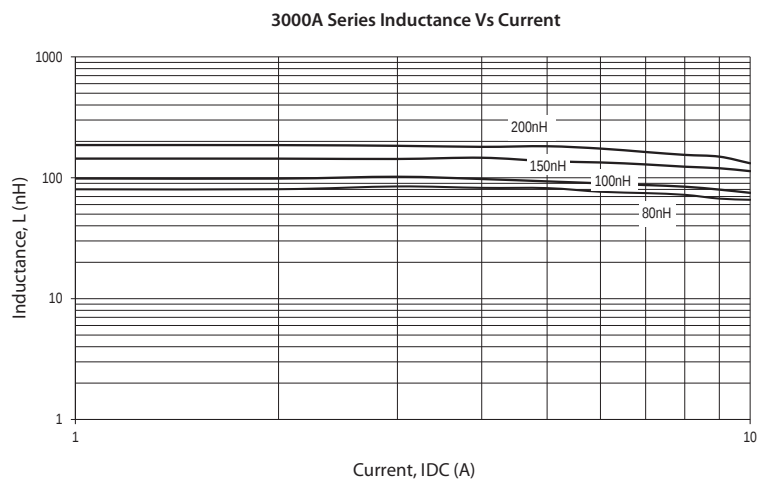
1 For further information, please visit [www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)

2 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.

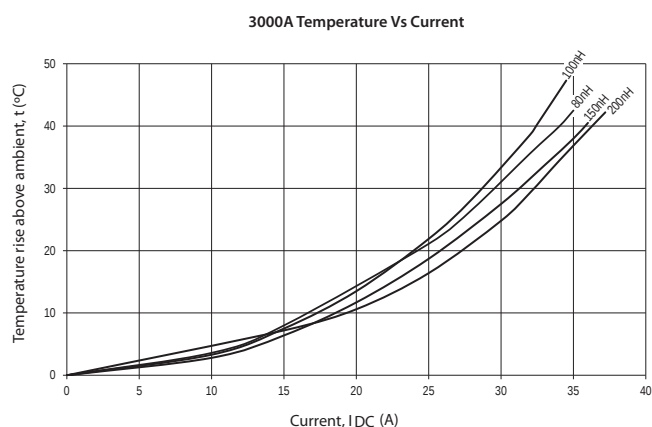
3 I<sub>DC</sub> is the value at which the inductance falls to 80% of its nominal value or when its temperature reaches 40°C, which ever is sooner.

4 I<sub>SAT</sub> is the value at which the inductance falls to 80% of its nominal value.

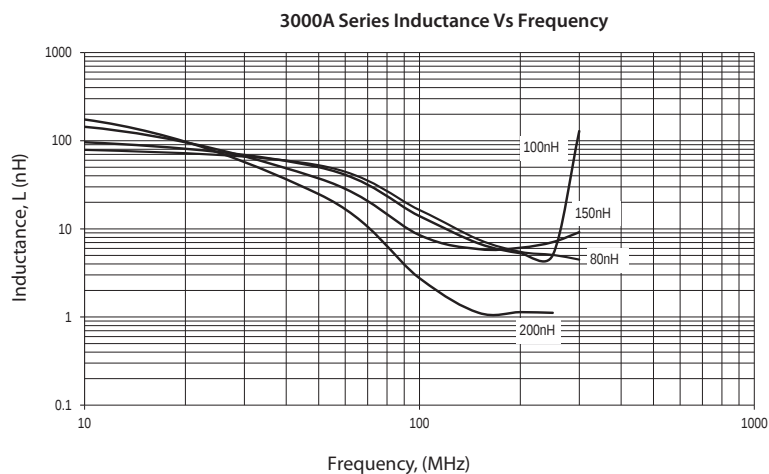
# INDUCTANCE Vs CURRENT



# TEMPERATURE Vs CURRENT

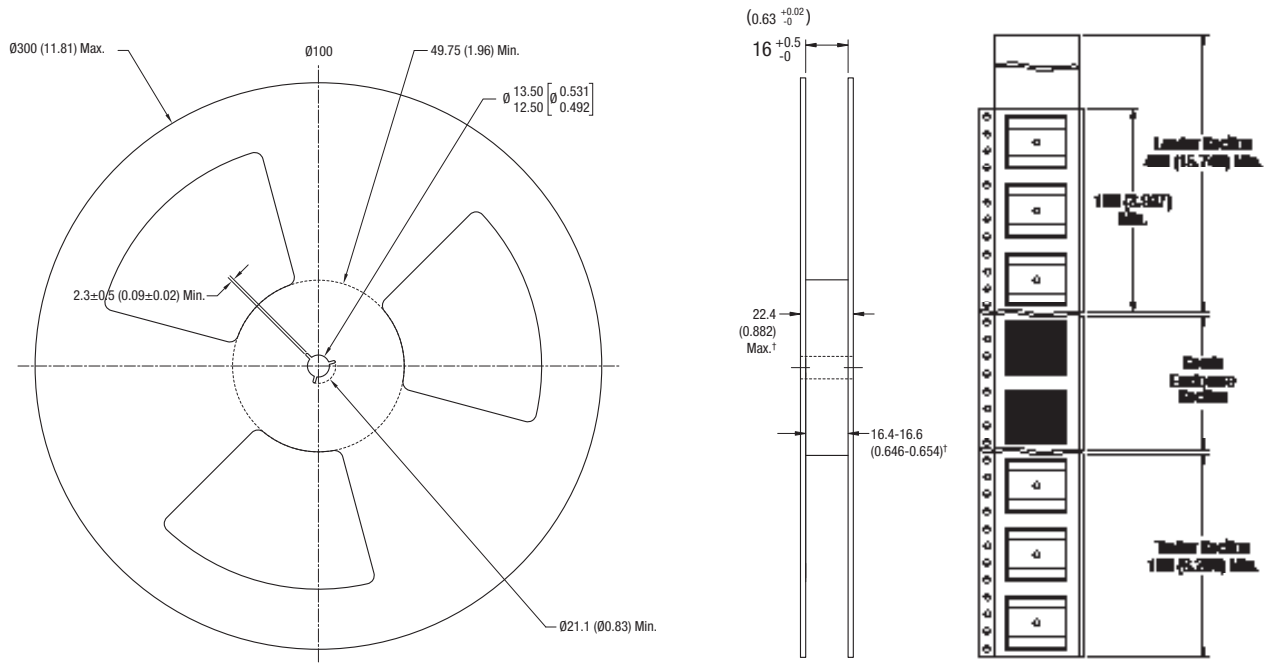


# INDUCTANCE Vs FREQUENCY

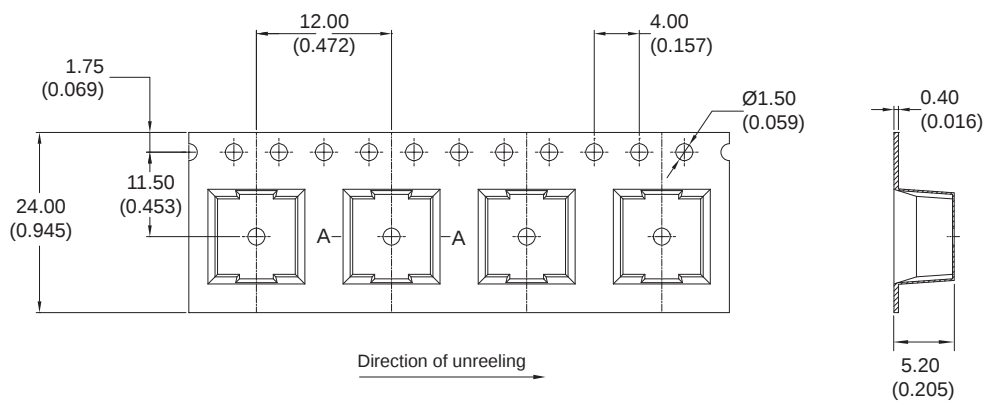


**PACKAGE SPECIFICATIONS**

**Reel Dimensions**



**Reel Dimensions**



Reel quantity: 1000