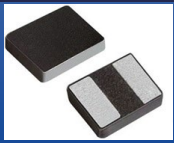




**EN:** This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at [www.hestore.hu](http://www.hestore.hu).

# MINI MOLDED POWER INDUCTOR (3.3μH )



**AOTA-B201610S3R3-101-T**

**2.0 x 1.6 x 1.0 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Features

- Shielded construction for minimized EMI emissions
- Low DCR for better efficiency
- High current handling capability
- Compact size that is suitable for high-density designs
- Fit for high frequency switching applications due to high SRF

## Applications

- Approved for use with Raspberry Pi's RP235x range of microcontroller products.
- Consumer electronics and portable devices
- Power electronics such as DC-DC converters, inverters and voltage regulators
- Industrial applications, robotics, signal conditioning, instrumentation and control systems.

## Electrical Specifications

| Part Number            | Inductance | Tolerance | Self-Resonant Frequency | DC Resistance |     | Saturation Current |     | Temperature Rise Current |     |
|------------------------|------------|-----------|-------------------------|---------------|-----|--------------------|-----|--------------------------|-----|
|                        | 1MHz/1.0V  |           | Min.                    | Typ           | Max | Typ                | Max | Typ                      | Max |
| Units                  | μH         | %         | MHz                     | mΩ            |     | A                  |     | A                        |     |
| Symbol                 | L          | M         | SRF                     | DCR           |     | Isat               |     | Irms                     |     |
| AOTA-B201610S3R3-101-T | 3.3        | M         | 21                      | 115           | 140 | 2.8                | 2.4 | 2.3                      | 2.1 |

### Test Conditions

**Isat:** DC current at which the inductance drops 30% from its nominal value.

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40 °C) from 25°C ambient.

**Operating Temperature:** -40°C ~ +125°C (including self-temperature rise)

**Operating Voltage:** 20V

**Storage Condition:** -40°C ~ +125°C (on board), -10°C ~ +40°C (with packaging) and R.H. 60 max.

**AOTA-B201610S3R3-101-T is RoHS Compliant and Pb free.**

## Part Number Identification

**AOTA-B201610S3R3-101-T** (no orderable options)

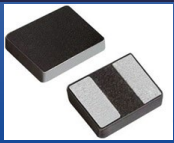


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**REVISION A : 9/13/2024**

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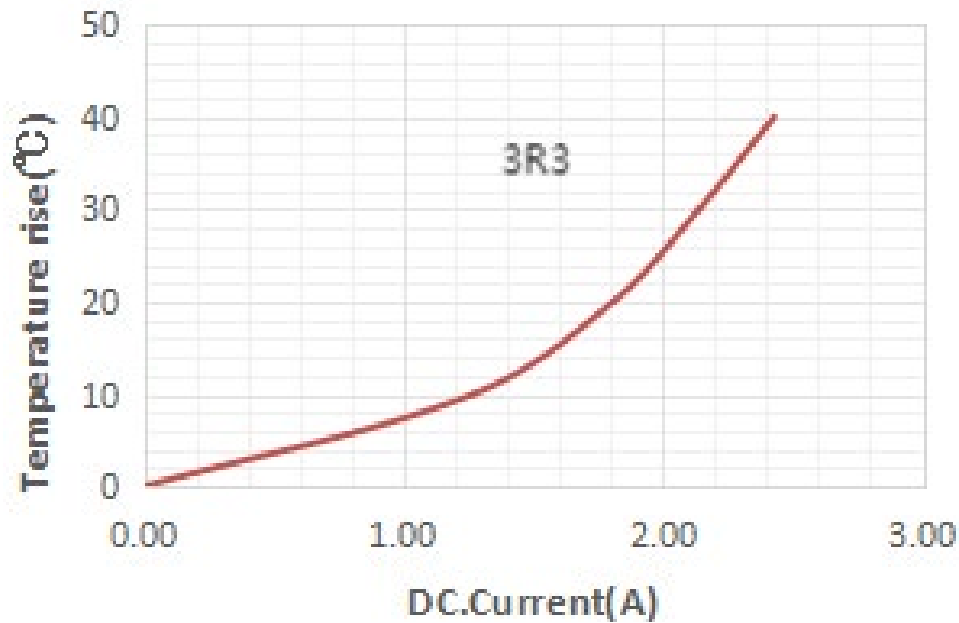


AOTA-B201610S3R3-101-T

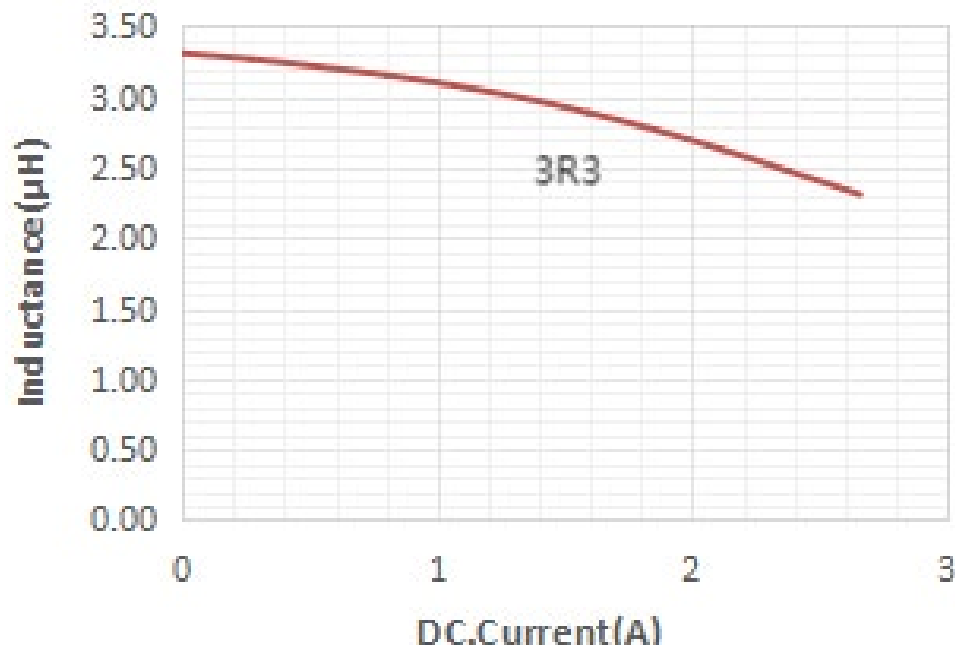
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## Performance Graphs

### Temperature Rise Current (Irms)



### Saturation Current (Isat)



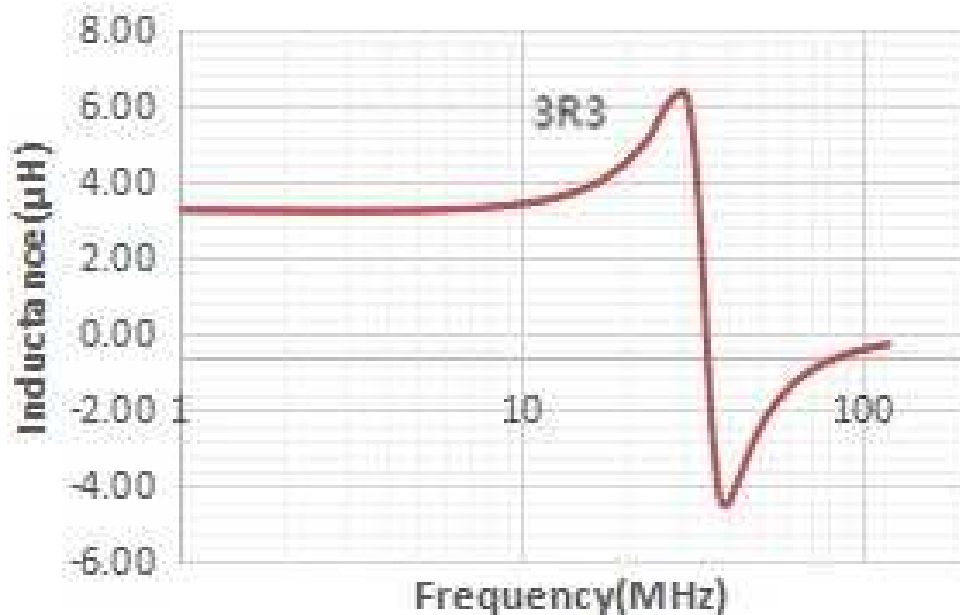
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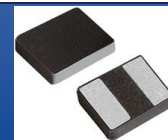
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## Inductance vs. Frequency (SRF)



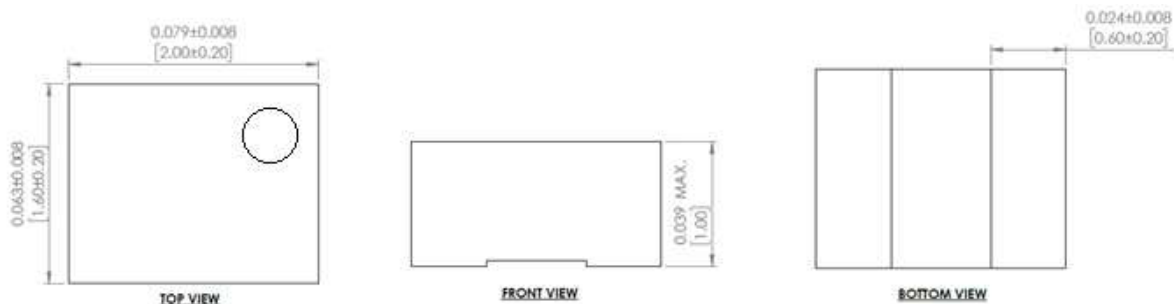
# MINI MOLDED POWER INDUCTOR (3.3μH )



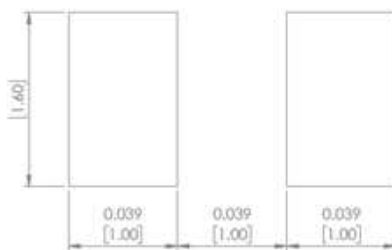
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MSL Level = 1

## Mechanical Specifications



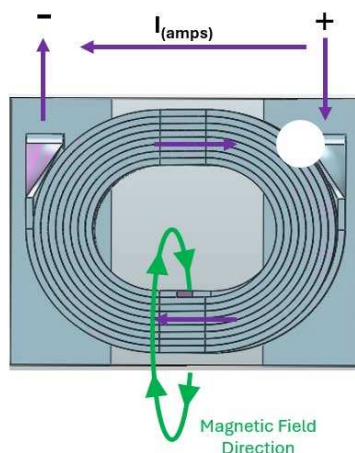
## Recommended Land Pattern



Dimensions: Inch[mm]

## Marking (White Ink polarity dot)

Internal structure is shown for illustration of polarity and winding direction.



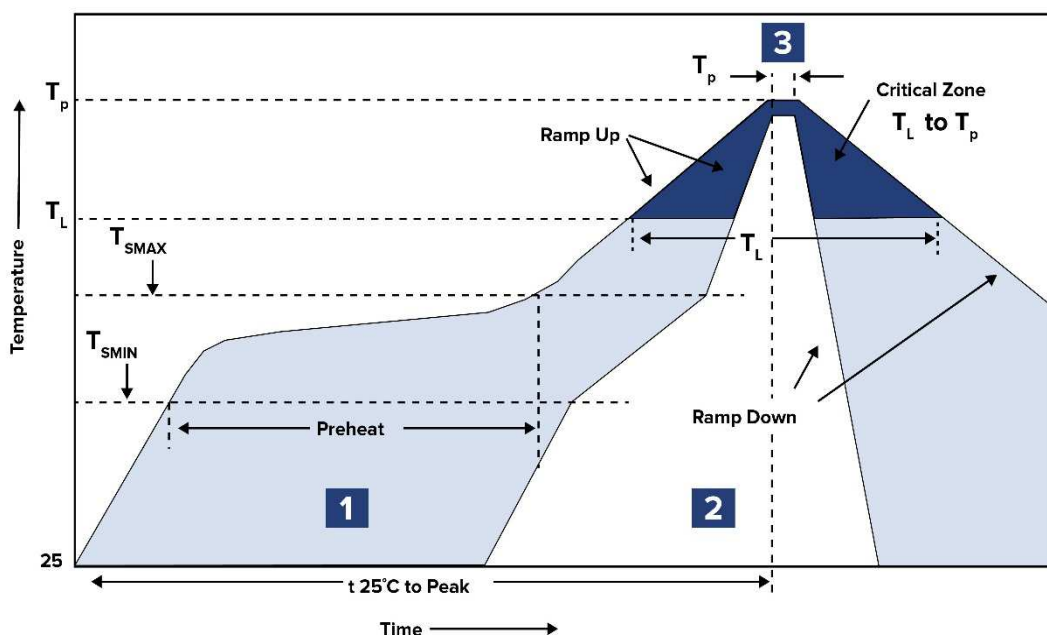
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## Reflow Profile



| Zone | Description | Temperature                                            | Times         |
|------|-------------|--------------------------------------------------------|---------------|
| 1    | Preheat     | T <sub>SMIN</sub> ~ T <sub>SMAX</sub><br>150°C ~ 200°C | 60 ~ 120 sec. |
| 2    | Reflow      | T <sub>L</sub><br>217°C                                | 60 ~ 90 sec.  |
| 3    | Peak heat   | T <sub>P</sub><br>260°C Max                            | 10 sec. MAX   |

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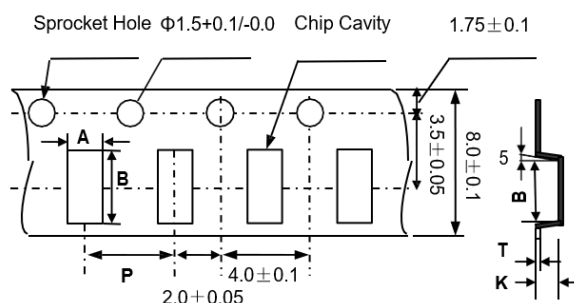
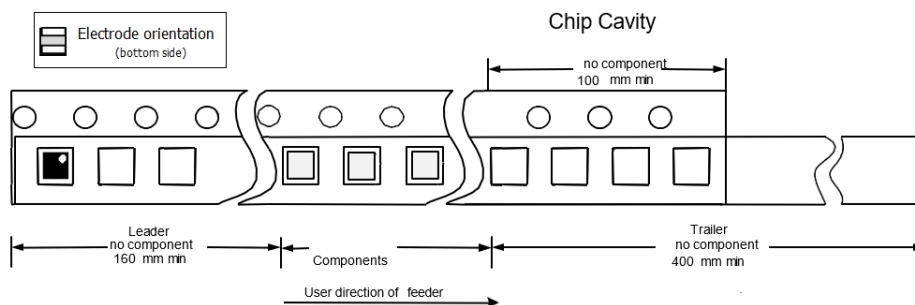


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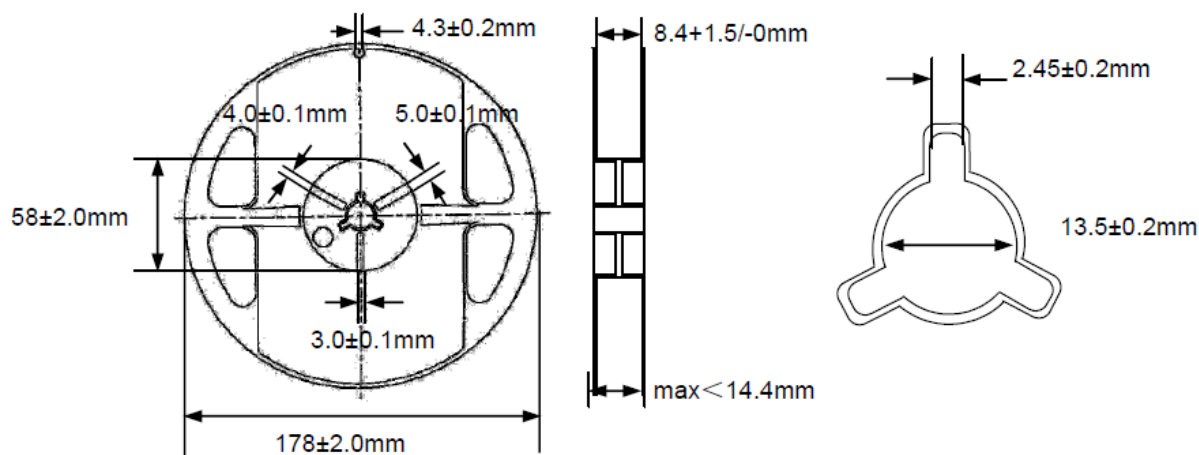
## Packaging

Tape & Reel: 3000 pcs/reel



| A        | B        | P       | K        | T       |
|----------|----------|---------|----------|---------|
| 1.90±0.1 | 2.30±0.1 | 4.0±0.1 | 1.30 Max | 0.3 Max |

Dimensions: mm



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