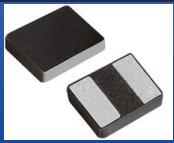


# MINI MOLDED POWER INDUCTOR (3.3 $\mu$ H)



**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	$\mu$ H	%	MHz	m $\Omega$		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)



5101 Hidden Creek Ln, Spicewood TX 78669  
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**REVISION A : 9/13/2024**

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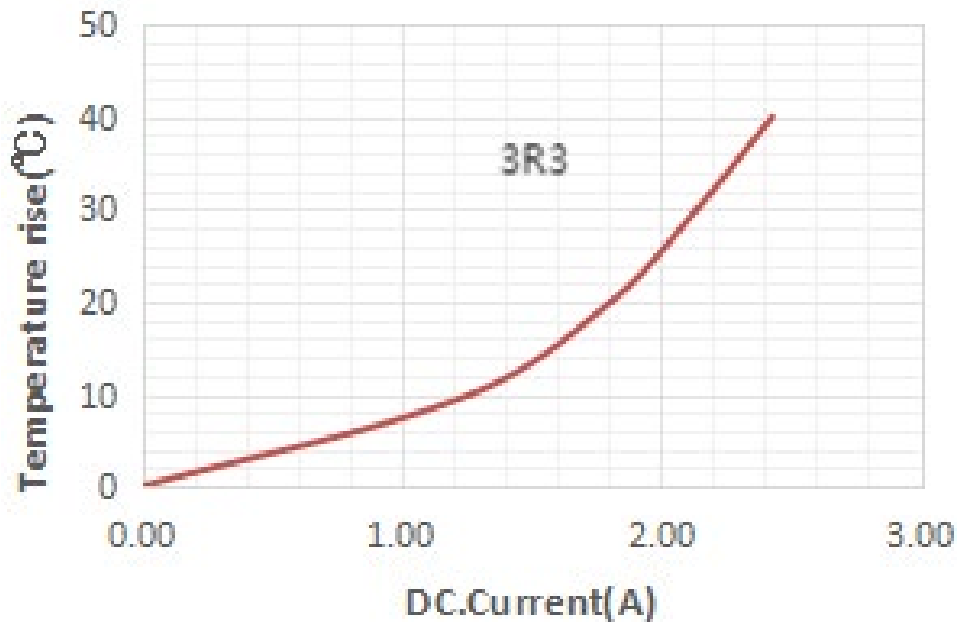


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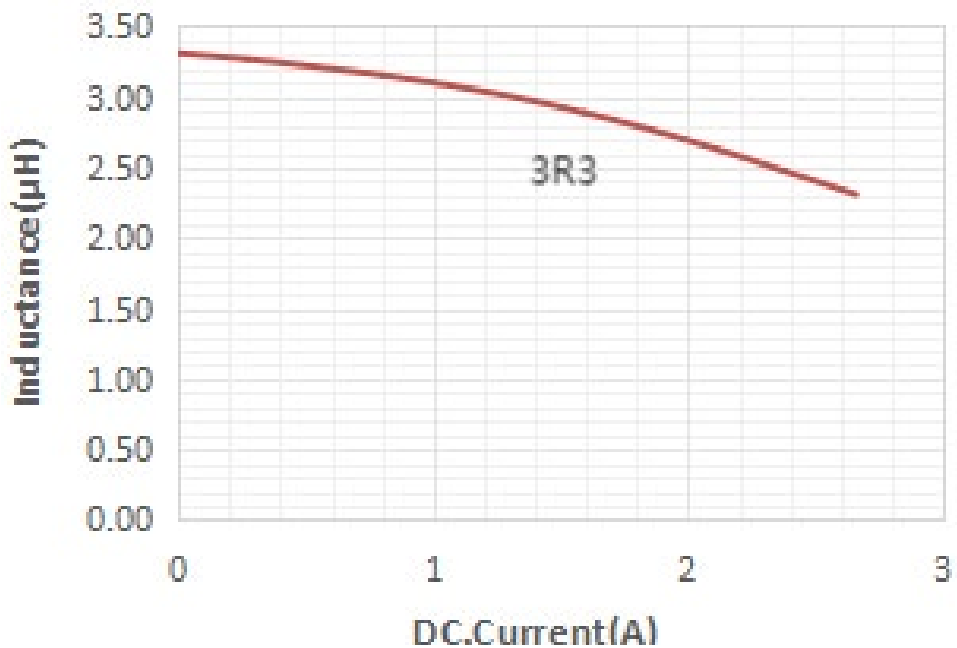
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## Performance Graphs

### Temperature Rise Current (Irms)



### Saturation Current (Isat)



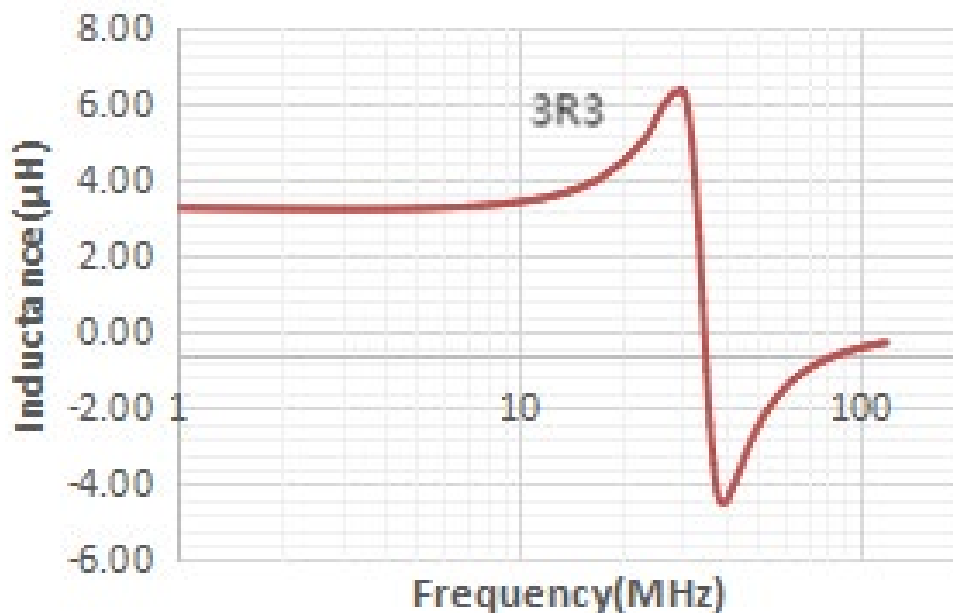
# MINI MOLDED POWER INDUCTOR (3.3 $\mu$ H)



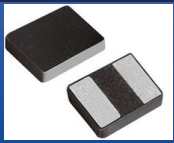
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### Inductance vs. Frequency (SRF)



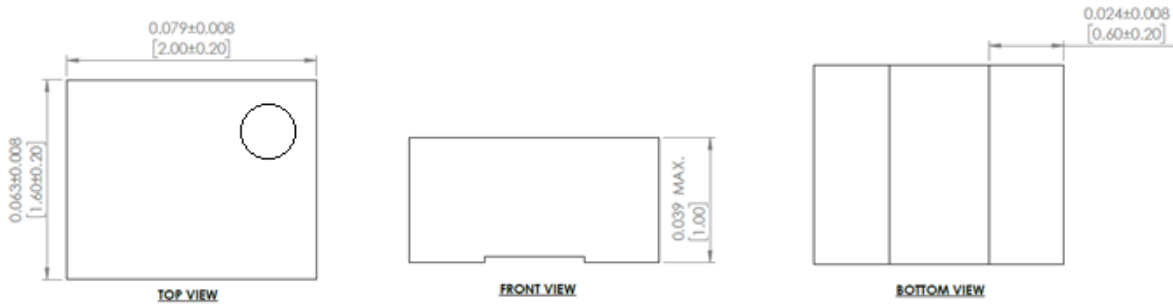
# MINI MOLDED POWER INDUCTOR (3.3 $\mu$ H)



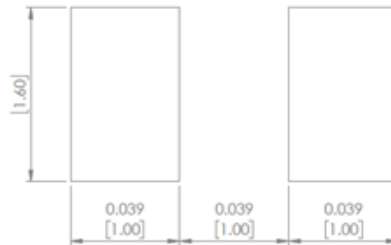
AOTA-B201610S3R3-101-T

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MSL Level = 1

## Mechanical Specifications



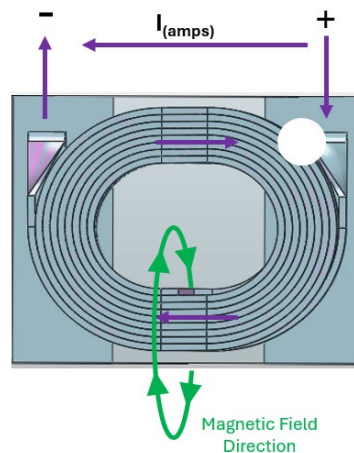
## Recommended Land Pattern



Dimensions: Inch[mm]

## Marking (White Ink polarity dot)

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



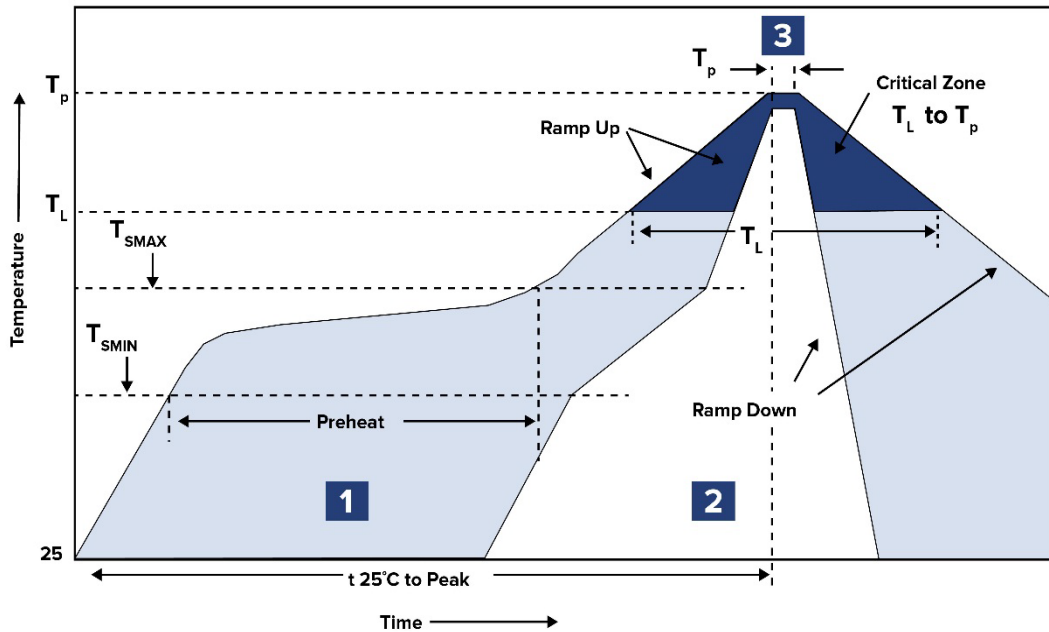
# MINI MOLDED POWER INDUCTOR (3.3μH)



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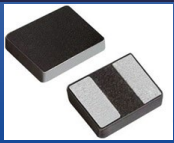
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 RoHS/RoHS II Compliant  
 MSL Level = 1

## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 90 sec.
3	Peak heat	$T_P$ 260°C Max	10 sec. MAX

# MINI MOLDED POWER INDUCTOR (3.3μH)

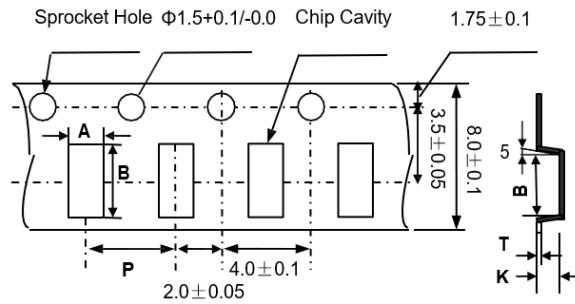
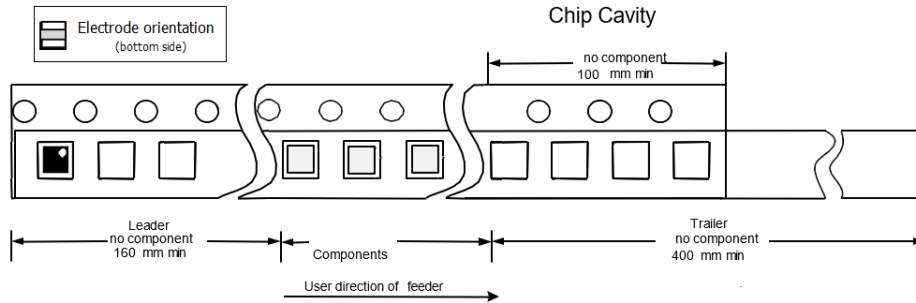


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**RoHS/RoHS II Compliant**  
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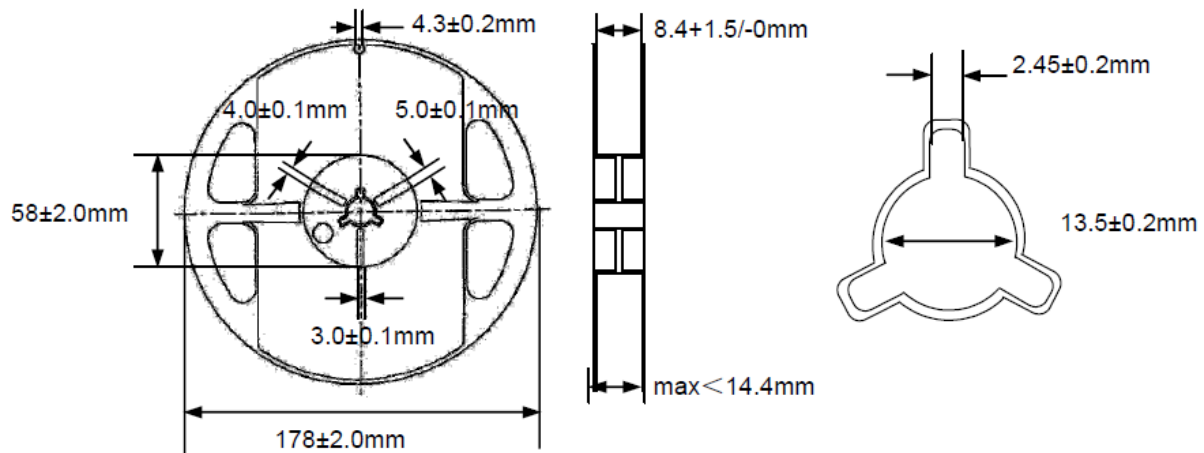
## Packaging

**Tape & Reel: 3000 pcs/reel**



A	B	P	K	T
$1.90 \pm 0.1$	$2.30 \pm 0.1$	$4.0 \pm 0.1$	1.30 Max	0.3 Max

Dimensions: mm



**ATTENTION:** Abracon LLC's products are Commercial-Off-The-Shelf (COTS), which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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