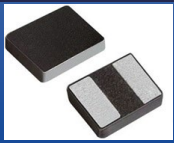




**THE DATASHEET OF  
C0603C100K3GACTU**



# 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
	$\mu$ H	%	MHz	m $\Omega$		A		A	
	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)

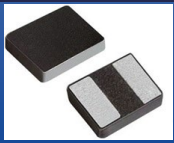


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# MINI MOLDED POWER INDUCTOR (3.3 $\mu$ H)

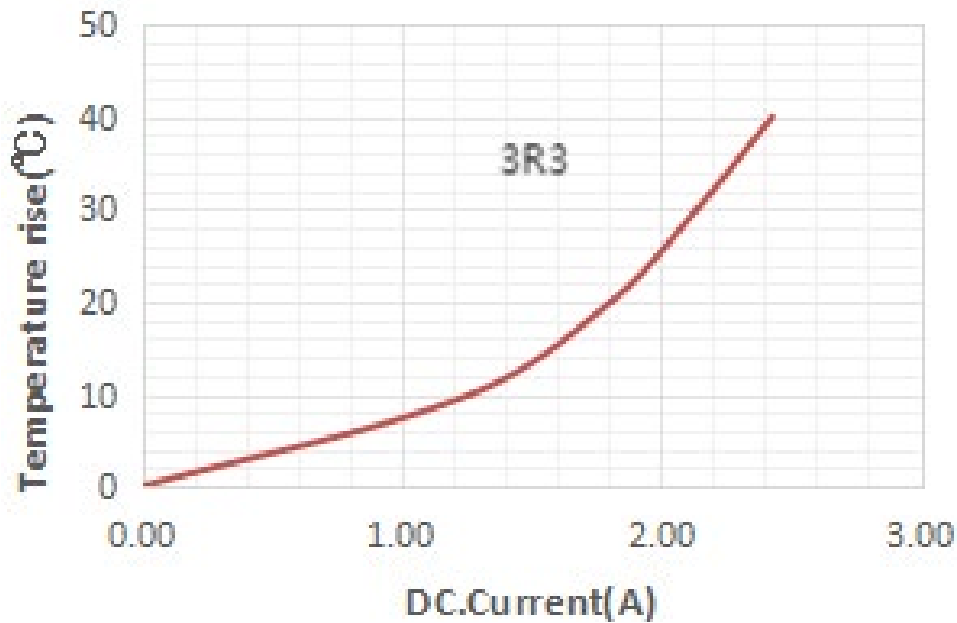


AOTA-B201610S3R3-101-T

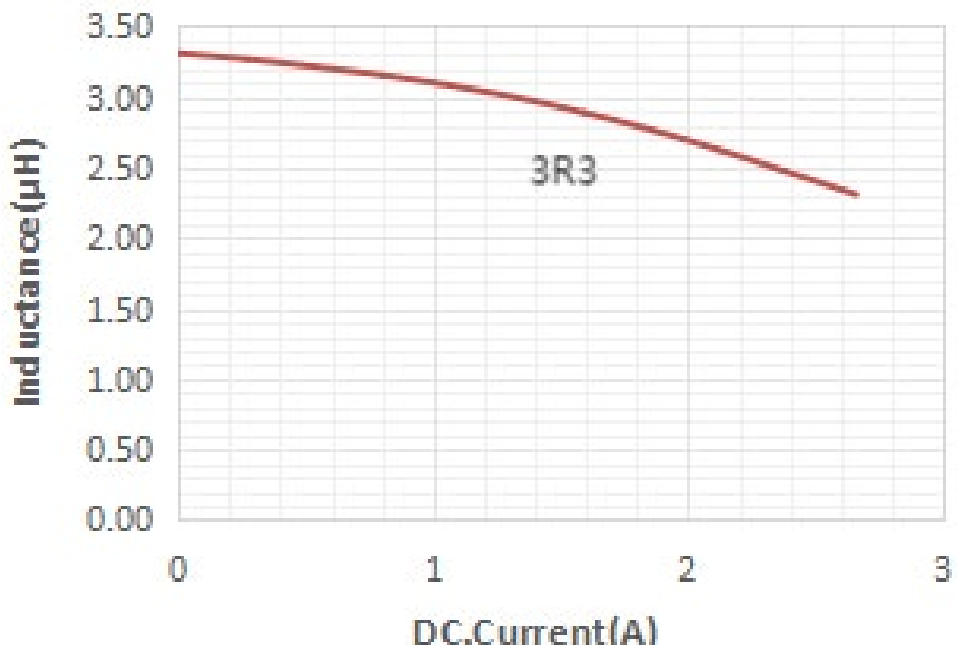
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RoHS/RoHS II Compliant  
MSL Level = 1

## Performance Graphs

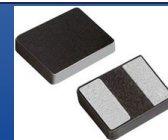
### Temperature Rise Current (Irms)



### Saturation Current (Isat)



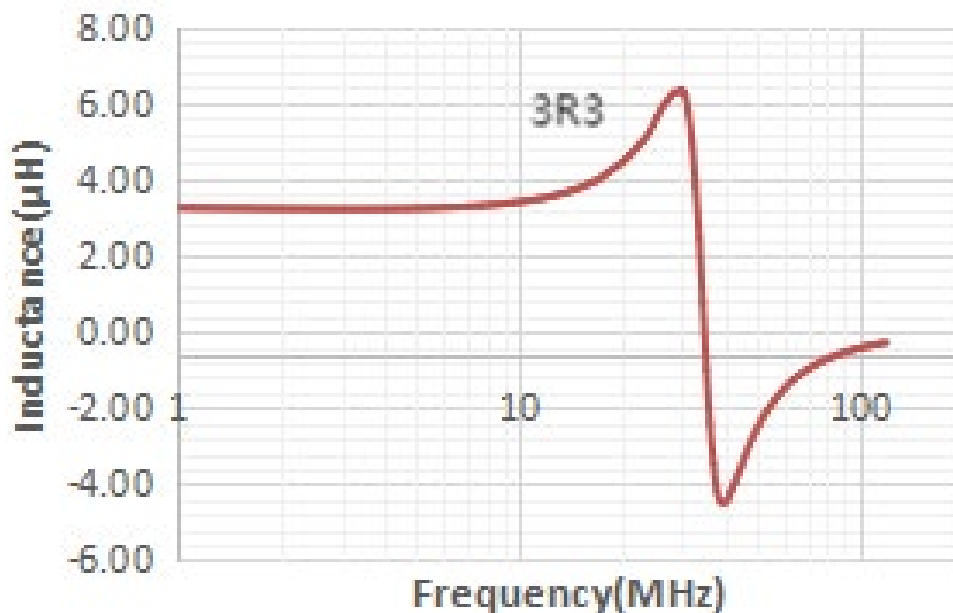
# MINI MOLDED POWER INDUCTOR (3.3 $\mu$ H)



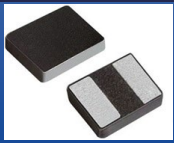
AOTA-B201610S3R3-101-T

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### Inductance vs. Frequency (SRF)



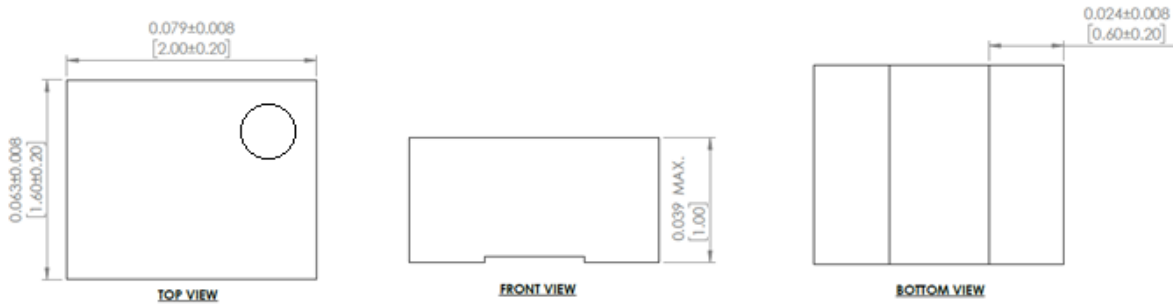
# MINI MOLDED POWER INDUCTOR (3.3 $\mu$ H)



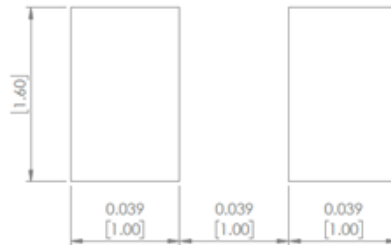
AOTA-B201610S3R3-101-T

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RoHS/RoHS II Compliant  
MSL Level = 1

## Mechanical Specifications



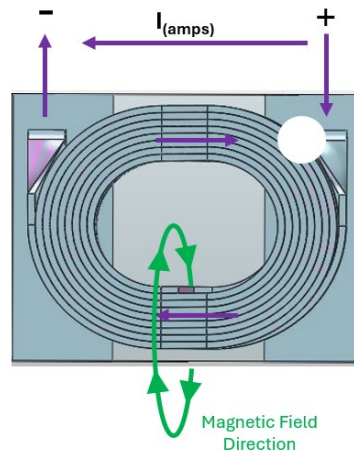
## Recommended Land Pattern



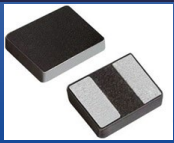
Dimensions: Inch[mm]

## Marking (White Ink polarity dot)

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



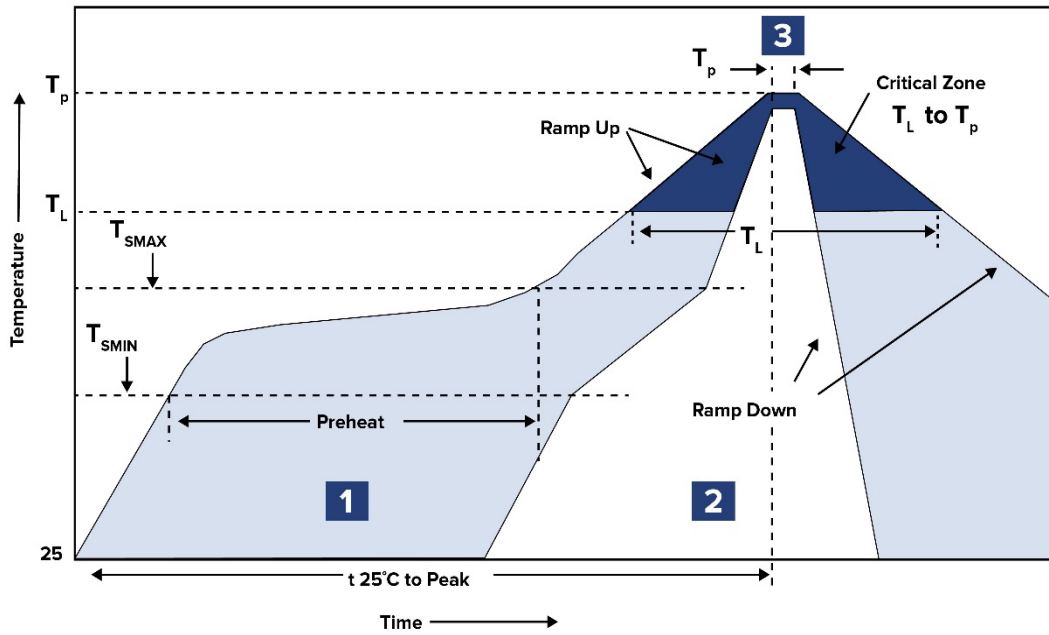
# MINI MOLDED POWER INDUCTOR (3.3μH)



AOTA-B201610S3R3-101-T

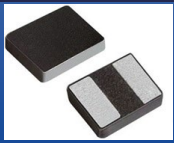
2.0 x 1.6 x 1.0 mm  
 RoHS/RoHS II Compliant  
 MSL Level = 1

## 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)

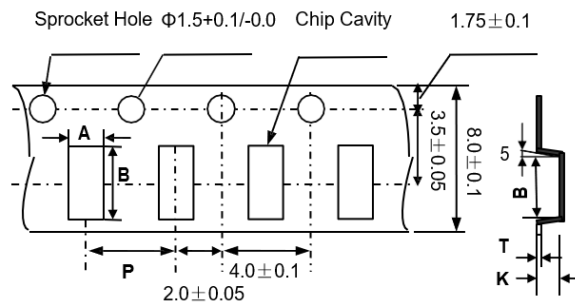
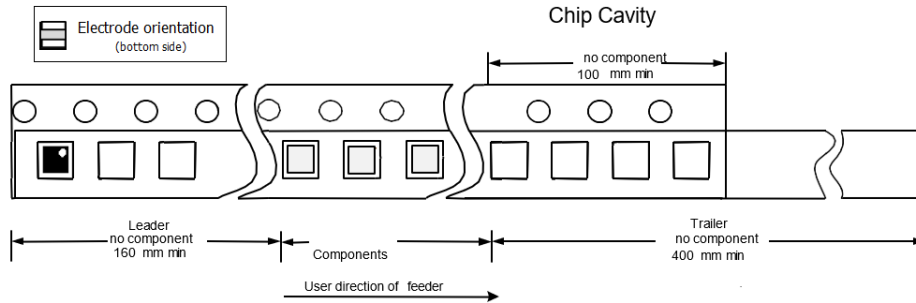


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**2.0 x 1.6 x 1.0 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

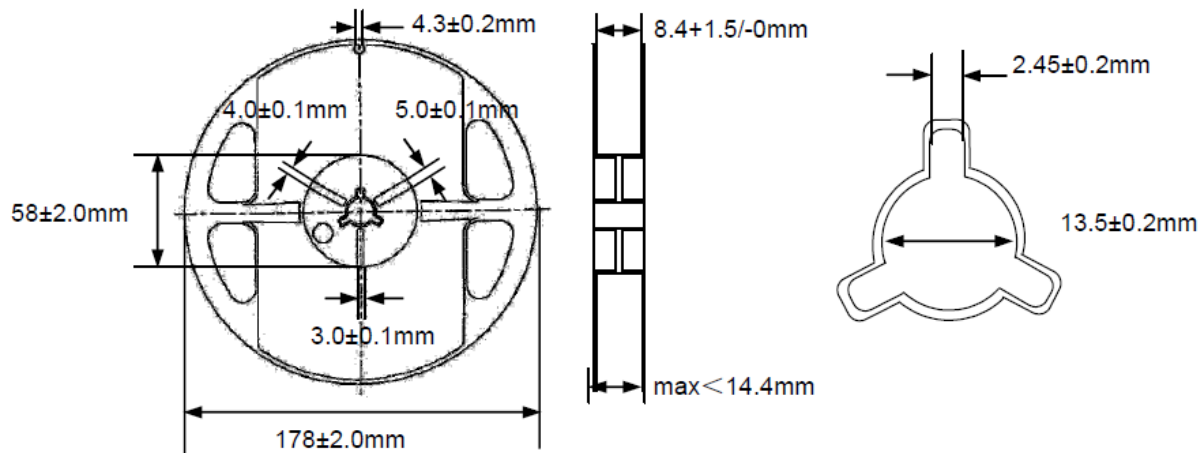
## Packaging

**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



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