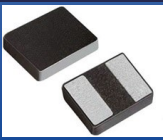


# MINI MOLDED POWER INDUCTOR



**AOTA-B252008S**

Request Samples



Check Inventory



**2.5 x 2.0 x 0.8 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

- Consumer electronics and portable devices
- Power electronics such as DC converters, inverters, and voltage regulators
- Industrial applications, robotics, signal conditioning, instrumentation, and control systems
- IoT devices, smart home, automation systems, wireless sensing

## 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	$\mu\text{H}$	%	MHz	$\text{m}\Omega$		A		A	
Symbol	L	M	SRF	DCR		Isat		Irms	
AOTA-B252008S1R0MT	1.0	20	56	39	46	4.8	4.3	3.8	3.5
AOTA-B252008S4R7MT	4.7	20	20	165	180	1.95	1.75	2.0	1.8
AOTA-B252008S100MT	10.0	20	14	507	570	1.4	1.20	1.05	0.95

### Test Conditions

**Isat:** DC current at which the inductance drops 30% from its value without current.

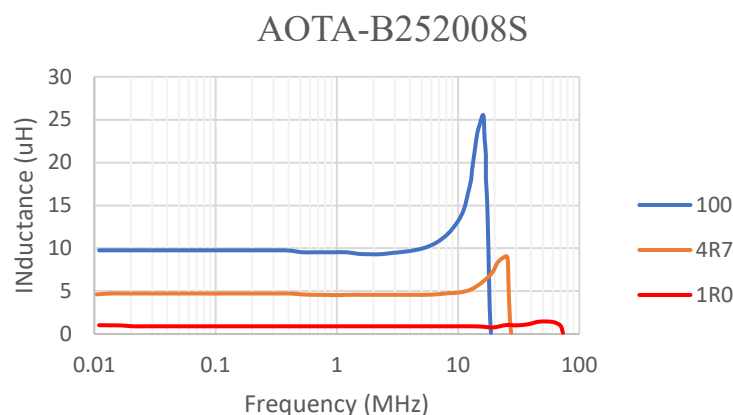
**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40 °C) from 25°C ambient

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

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

**AOTA-B252008S Series is RoHS Compliant and Pb free**

## Performance Graphs



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## Part Identification

AOTA-B252008S

**Inductance Code**

See Electrical Specification table

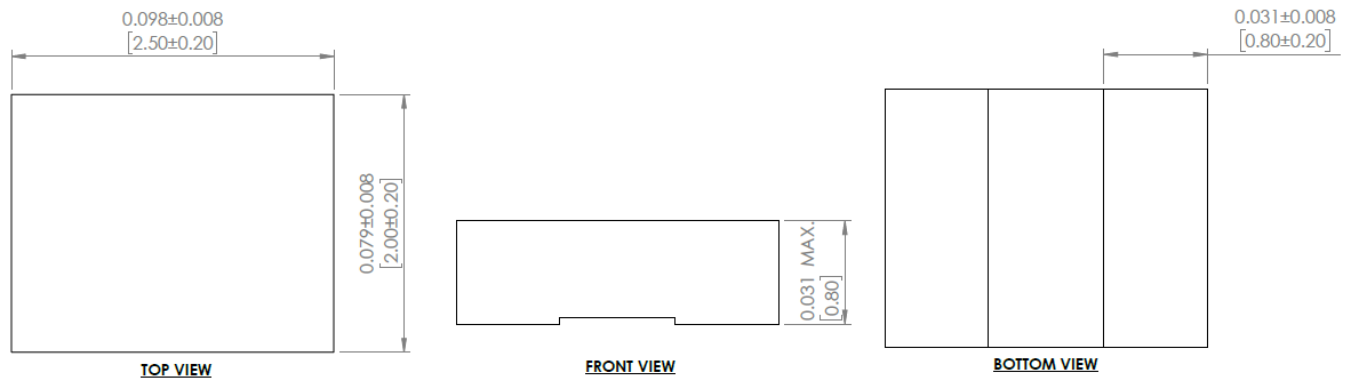
**Tolerance**

M = ± 20%

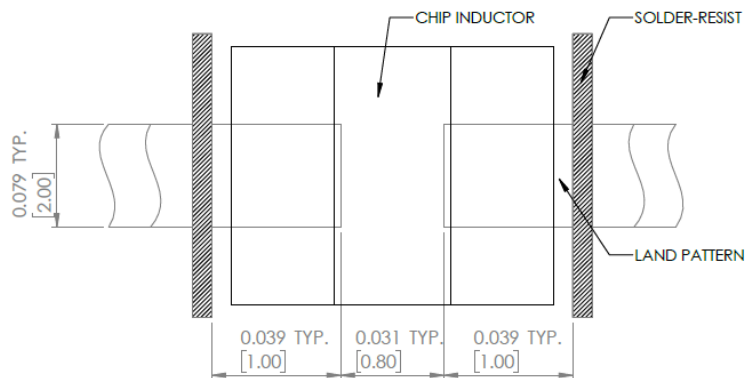
**Packaging**

T: Tape and Reel (See Packaging)

## Mechanical Specifications



## Recommended Land Pattern



Dimensions: Inch[mm]

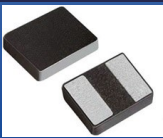


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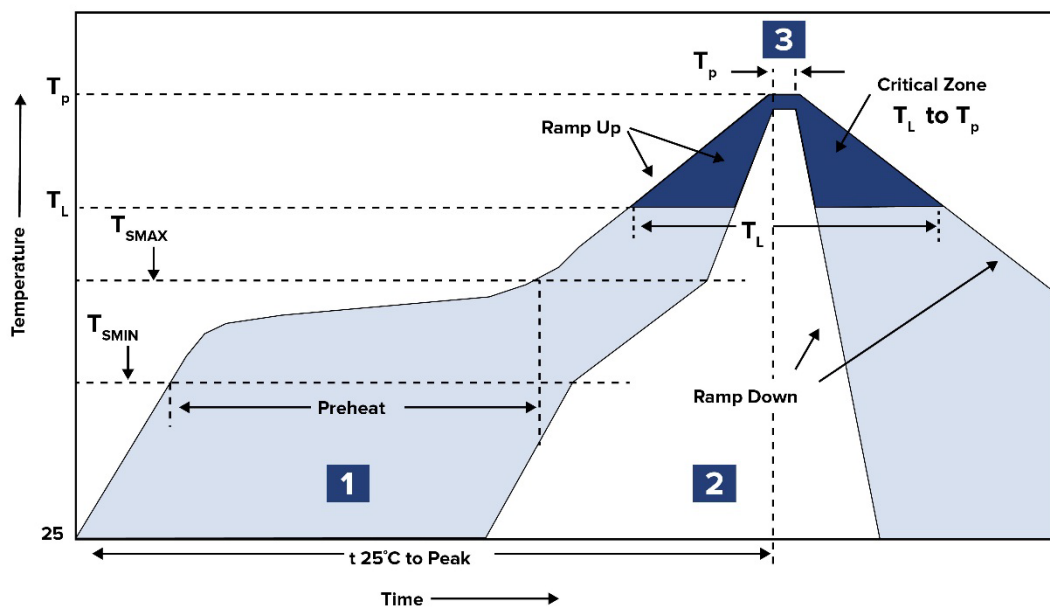


2.5 x 2.0 x 0.8 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Marking

No Marking

## 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

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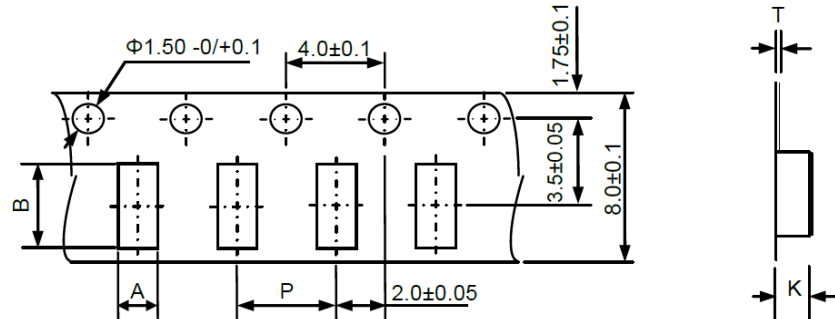
Check Inventory



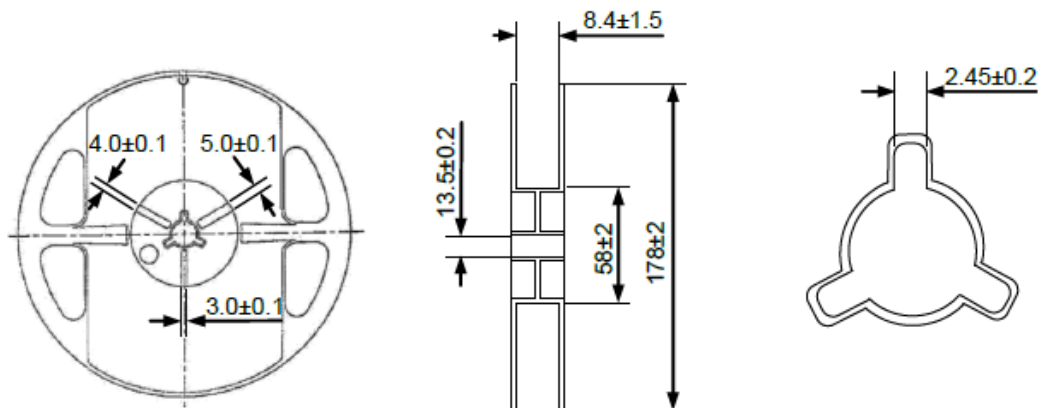
**2.5 x 2.0 x 0.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

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



A	B	P	K	T
2.30±0.1	2.80±0.1	4.0±0.1	1.10 Max	0.3 Max



Dimensions: mm

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