

#### **AOTA-B201210S**

Request Samples



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2.0 x 1.2 x 1.0 mm **RoHS/RoHS II Compliant** MSL Level = 1

#### **Features**

- Shielded construction for minimized EMI.
- Low DCR (as low as  $8m\Omega$ ) for better efficiency
- High current up to 14.5A handling capability.
- Compact size that is suitable for high-density designs
- Excellent for high frequency switching applications due to SRF up to 264MHz.

## **Applications**

- 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
- IoT devices, smart home, automation systems and wireless sensing

#### **Electrical Specifications**

Part Number	Inductance	Tolerance	Self- Resonant Frequency	DC Resistance		Saturation Current		Temperature Rise Current	
	1MHz/1.0V		Min.	Тур	Max	Тур	Max	Тур	Max
Units	μH	%	MHz	m	Ω	A	1	A	
Symbol	L	M	SRF	DC	CR	Is	at	Irr	ns
AOTA-B201210SR11MT	0.11	20%	264	8	10	14.5	13.0	7.1	6.4
AOTA-B201210SR24MT	0.24	20%	136	12	15	7.5	6.8	5.5	5.0
AOTA-B201210SR47MT	0.47	20%	96	21	24	5.7	5.1	5.2	4.8
AOTA-B201210S1R0MT	1.0	20%	56	46	51	4.0	3.6	3.5	3.1
AOTA-B201210S2R2MT	2.2	20%	36	100	112	2.4	2.1	2.2	1.9

## **Test Conditions**

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

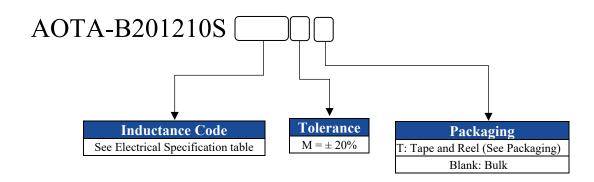
DC current that causes the temperature rise (ΔT, approximate 40 °C) from 25°C ambient.

**Operating Temperature:**  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  (including self-temperature rise)

**Storage Condition:**  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  (on board),  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$  (with packaging) and R.H. 60 max.

AOTA-B201210S Series is RoHS Compliant and Pb free.

#### **Part Identification**





5101 Hidden Creek Ln, Spicewood TX 78669 Phone: 512-371-6159 Fax: 512-351-8858 For terms and conditions of sales, please visit: www.abracon.com

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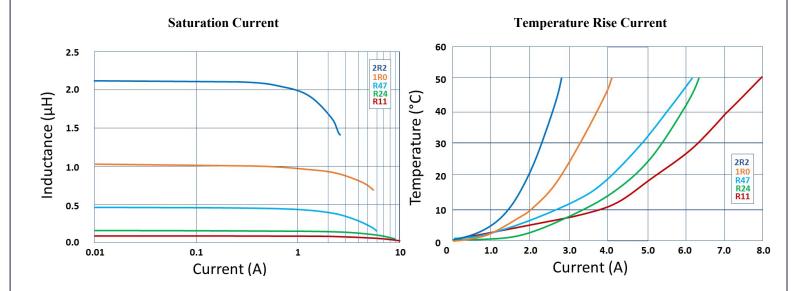


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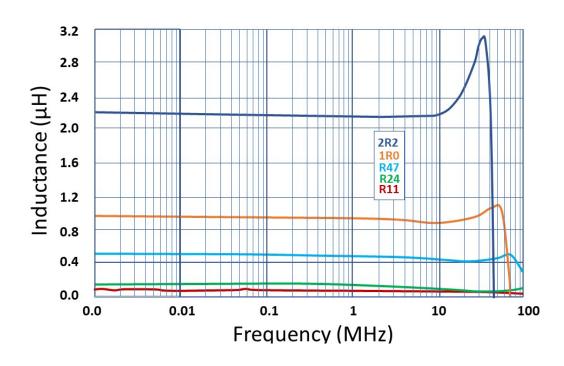


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## **Performance Graphs**



## **Inductance vs. Frequency**





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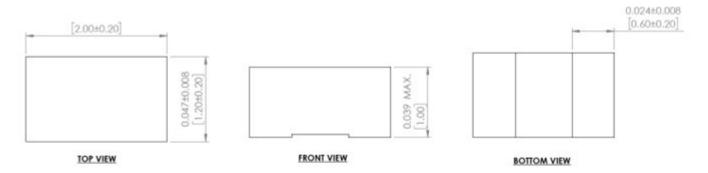


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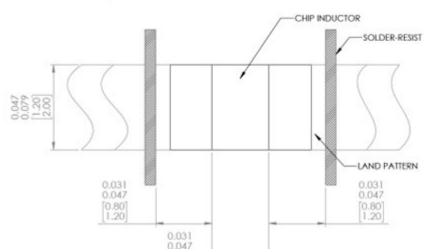


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## **Mechanical Specifications**



## Recommended Land Pattern



Dimensions: Inch[mm]

## Marking

No Marking





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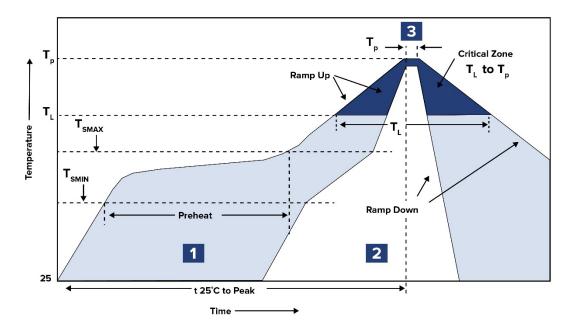


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#### **Reflow Profile**



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX} \\ 150^{\circ}C \sim 200^{\circ}C$	$60 \sim 120$ sec.
2	Reflow	T <sub>L</sub> 217°C	60 ~ 90 sec.
3	Peak heat	T <sub>P</sub> 260°C Max	10 sec. MAX





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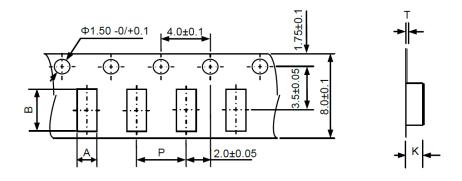
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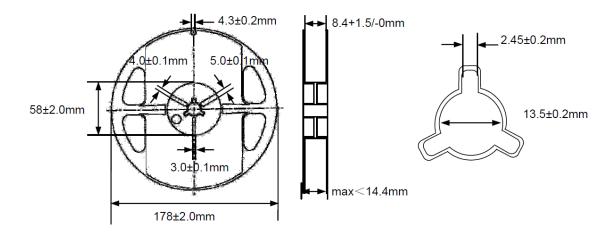
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## **Packaging**

Tape & Reel: 3000 pcs/reel



		1	K	T	
1.50±0.1	2.30±0.1	4.0±0.1	1.30 Max	0.3 Max	



Dimensions: mm

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# ABRACON:

<u>AOTA-B201210SR24MT</u> <u>AOTA-B201210SR11MT</u> <u>AOTA-B201210S1R0MT</u> <u>AOTA-B201210S2R2MT</u> <u>AOTA-B201210SR47MT</u>