

#### **AOTA-B141206S**

Request Samples



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1.4 x 1.2 x 0.6 mm RoHS/RoHS II Compliant MSL Level = 1

#### **Features**

- Shielded construction for minimized EMI.
- Low DCR (as low as  $28m\Omega$ ) for better efficiency
- High current up to 5.7A handling capability
- Compact size that is suitable for high-density designs
- Excellent for high-frequency switching applications due to SRF over 115MHz.

### **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!	$\Omega$	A	/	A	
Symbol	L	M	SRF	DC	CR	Is	at	Irr	ns
AOTA-B141206SR33MT	0.33	20%	120	28	32	5.7	5.4	3.7	3.5
AOTA-B141206SR47MT	0.47	20%	115	36	41	3.3	3.0	3.2	2.9

### **Test Conditions**

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

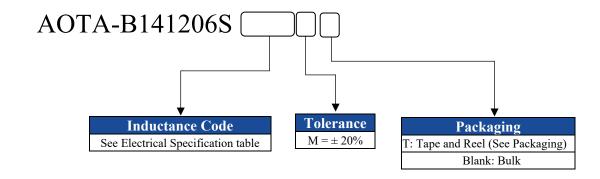
**Irms:** DC current that causes the temperature rise (ΔT, approximate 40 °C) from 25°C ambient.

**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-B141206S 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

**REVISION Initial Release**: 11/10/2023

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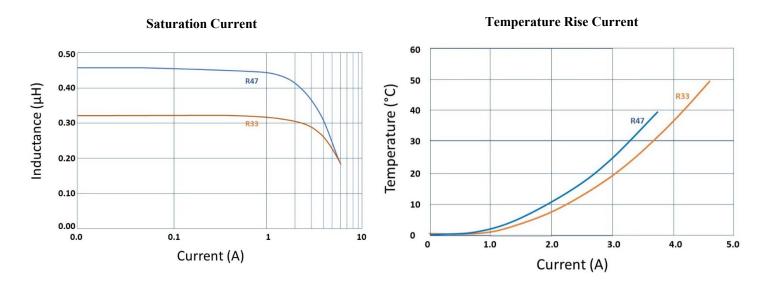


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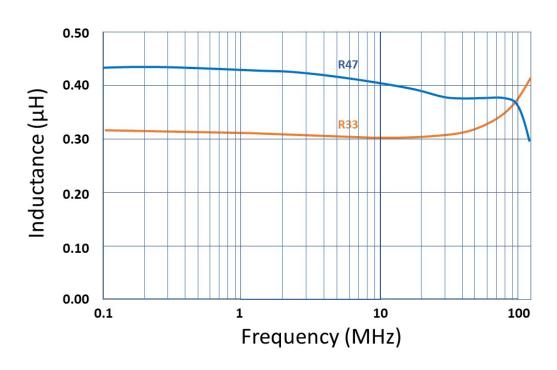


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### **Performance Graphs**



## **Inductance vs. Frequency**





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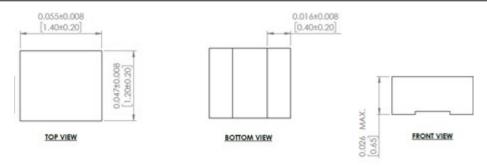


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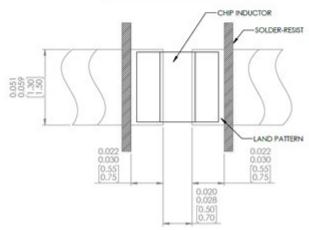


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### **Mechanical Specifications**



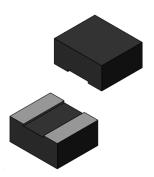
#### Recommended Land Pattern



Dimensions: [mm] inches

### **Marking**

No Marking





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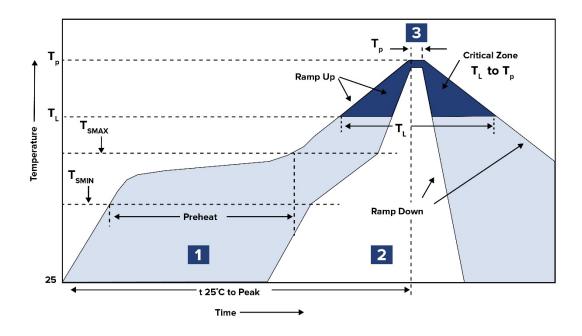


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### **Reflow Profile**



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ $150^{\circ}C \sim 200^{\circ}C$	60 ∼ 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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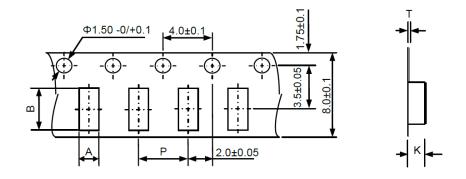
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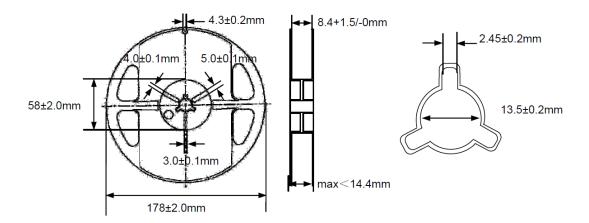
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### **Packaging**

Tape & Reel: 3000 pcs/reel



			K	T
1.50±0.1	1.70±0.1	4.0±0.1	1.0 Max	0.3 Max



Dimensions: mm

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