

MINI MOLDED POWER INDUCTOR



AOTA-B141206S

Request Samples



Check Inventory



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 28mΩ) 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	
				Min.	Typ	Max	Typ	Max	Typ	Max
Units	µH	%	MHz	mΩ			A		A	
Symbol	L	M	SRF	DCR			Isat		Irms	
AOTA-B141206SR33MT	0.33	20%	120	28	32	36	5.7	5.4	3.7	3.5
AOTA-B141206SR47MT	0.47	20%	115	36	41	46	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°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.

Working Voltage: 20V

AOTA-B141206S Series is RoHS Compliant and Pb free.

Part Identification

AOTA-B141206S



Inductance Code

See Electrical Specification table

Tolerance

M = ± 20%

Packaging

T: Tape and Reel (See Packaging)

Blank: Bulk

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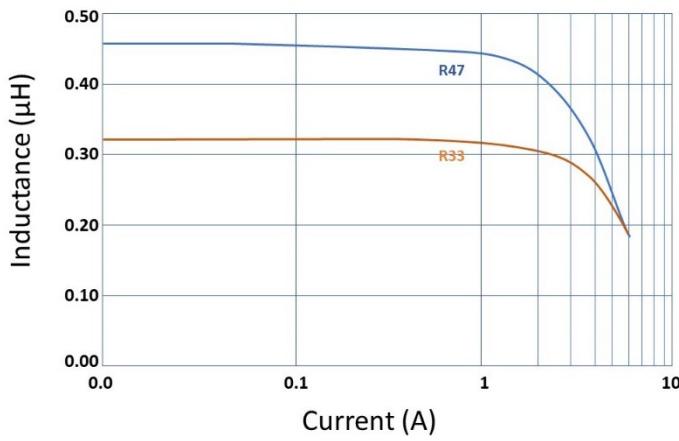
Check Inventory



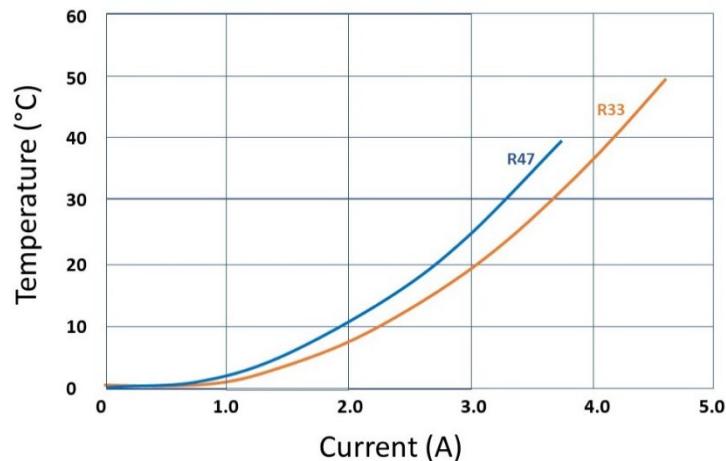
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Performance Graphs

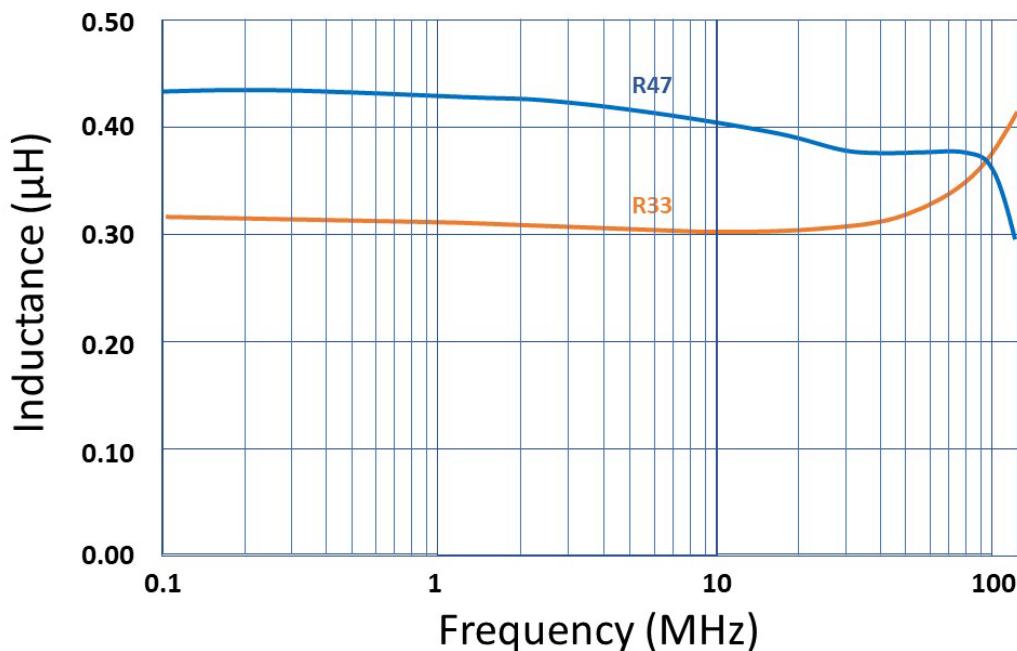
Saturation Current



Temperature Rise Current



Inductance vs. Frequency



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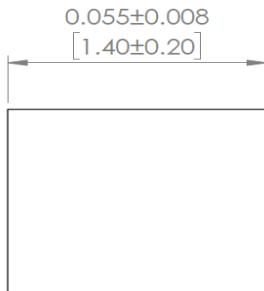


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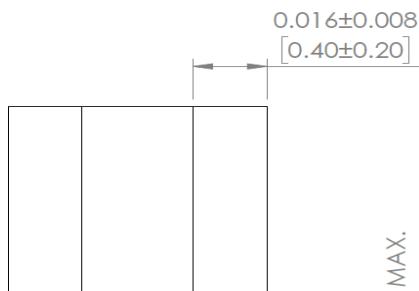


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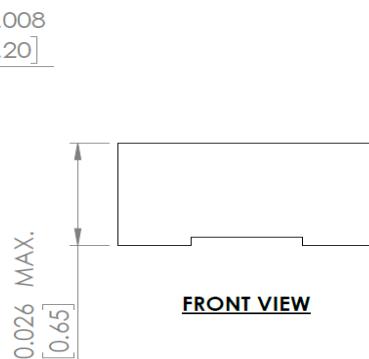
Mechanical Specifications



TOP VIEW

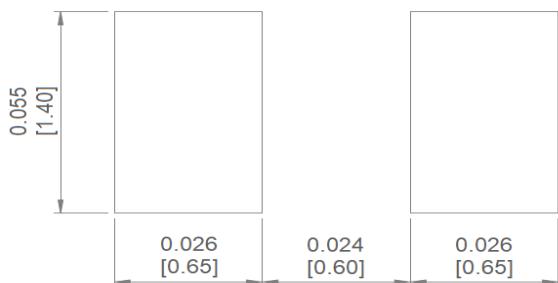


BOTTOM VIEW



FRONT VIEW

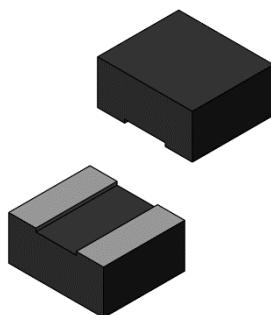
Recommended Land Pattern (Typ.)



Dimensions: inches [mm]

Marking

No Marking



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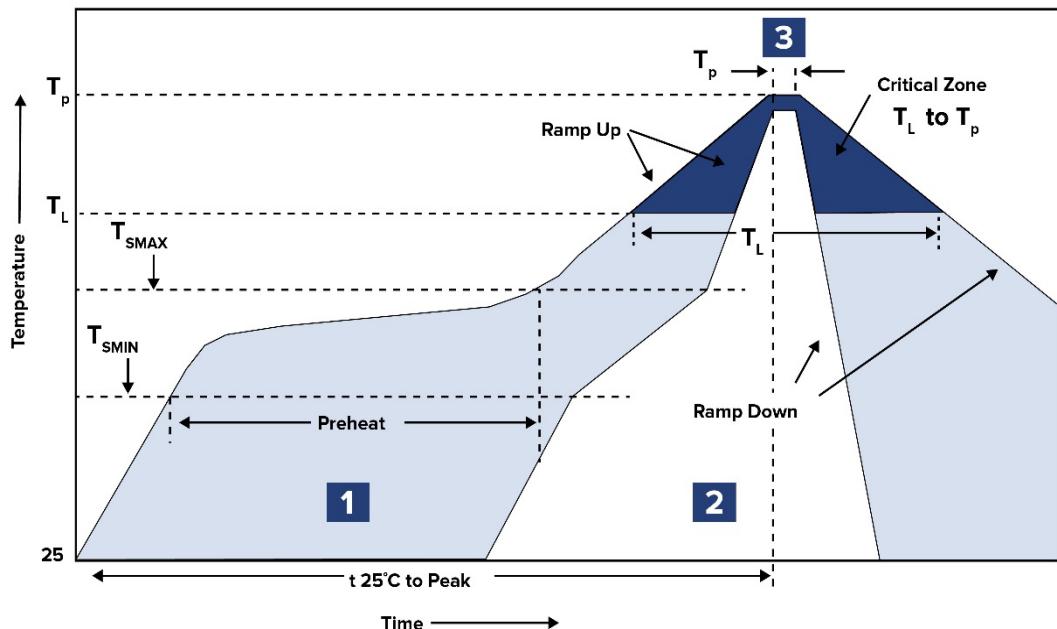


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°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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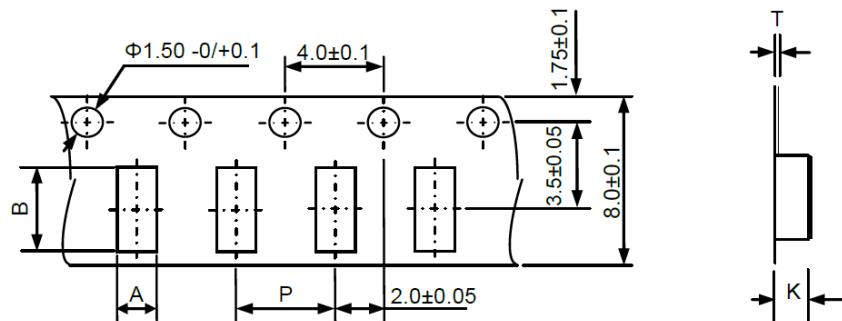
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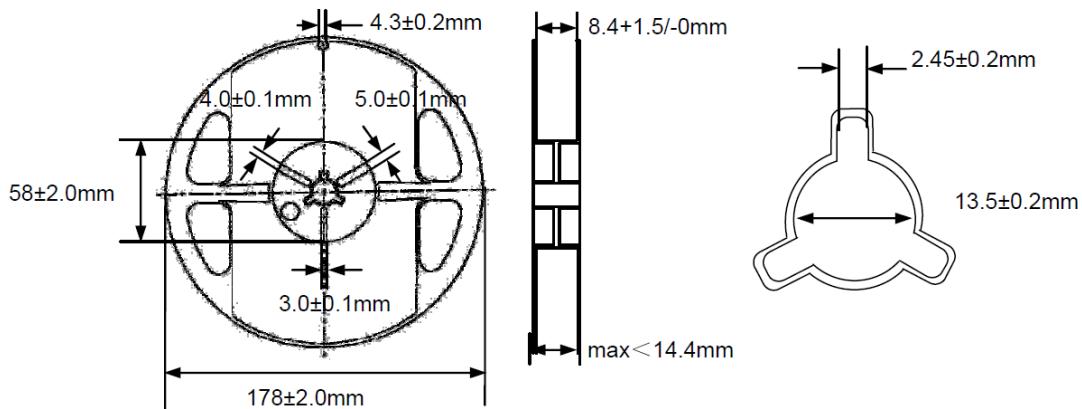
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Packaging

Tape & Reel: 3000 pcs/reel



A	B	P	K	T
1.50±0.1	1.70±0.1	4.0±0.1	1.0 Max	0.3 Max



Dimensions: mm

ATTENTION: Abraccon 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 Abraccon solution to meet their system-level requirements.



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For terms and conditions of sales, please visit:
www.abraccon.com

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ABRACON IS
ISO9001-2015
CERTIFIED