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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

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 Resistance			Saturation Current		Temperature Rise Current			
	1MHz/1.0V		Min.	Тур	Max	Тур	Max	Тур	Max
Units	μН	%	MHz	n	$\mathbf{n}\Omega$		A		A
Symbol	L	M	SRF	D	CR	Is	sat		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 (ΔT, approximate 40 °C) from 25°C ambient.

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

Operating Voltage: 20V

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-B201610S3R3-101-T is RoHS Compliant and Pb free.

Part Number Identification

AOTA-B201610S3R3-101-T (no orderable options)



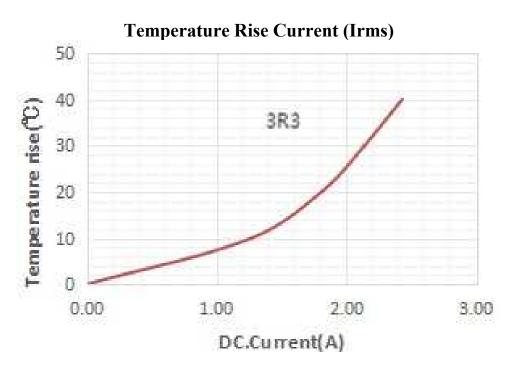
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Performance Graphs



Saturation Current (Isat) 3.50 3.00 2.50 2.50 3R3 2.00 1.50 0.50 0.00 0 1 2 3 DC.Current(A)



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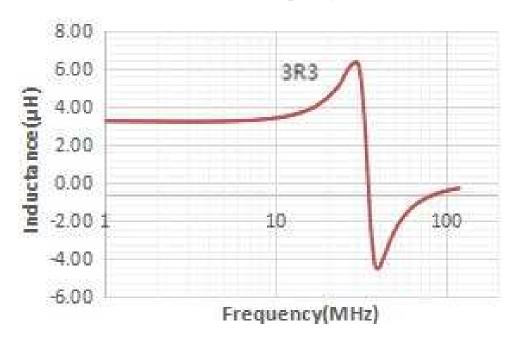
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Inductance vs. Frequency (SRF)





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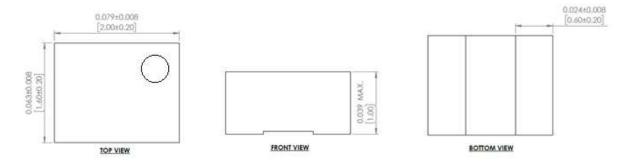
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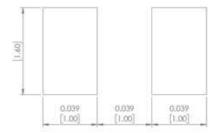
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Mechanical Specifications



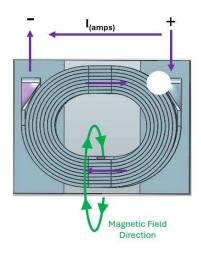
Recommended Land Pattern



Dimensions: Inch[mm]

Marking (White Ink polarity dot)

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





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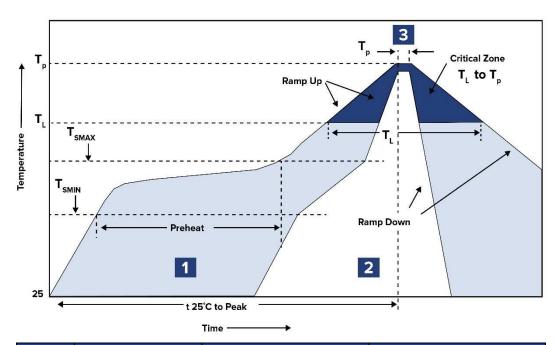
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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$\begin{split} T_{SMIN} \sim T_{SMAX} \\ 150^{\circ}C \sim 200^{\circ}C \end{split}$	$60 \sim 120$ 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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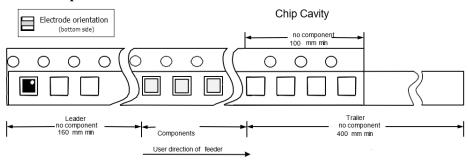


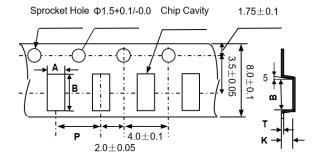
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Packaging

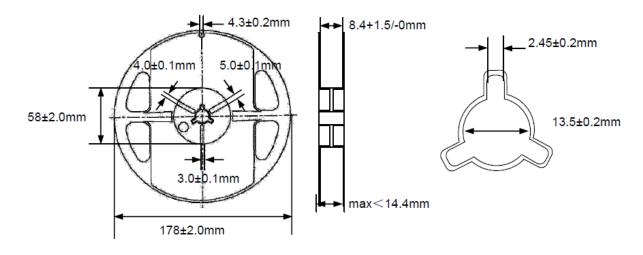
Tape & Reel: 3000 pcs/reel





A	В	P	K	T
1.90±0.1	2.30±0.1	4.0±0.1	1.30 Max	0.3 Max

Dimensions: mm



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