

Low Profile TLVR Inductor



ATL-1Z120705S

Request Samples



Check Inventory



12.0 x 7.0 x 5.0 mm

RoHS/RoHS II Compliant

MSL Level = 2

Features

- Increased Performance with high Saturation
- High Current
- Low Loss, small DCR
- Wide Switching Frequency
- Small, Compact Size
- Low Profile

Applications

- Voltage Regulation Modules (VRM)
- Multi-phased Power distribution Architectures
- High Power Graphics Cards
- Server/Blade Applications
- High Speed Switches
- Datacenter Storage Applications

Electrical Specifications

Part Number	Inductance (L \pm 20%)	Saturation Current, Max Isat (A) Pins 1-4			Temperature Rise Current, Irms (A)		DCR \pm 10% (m Ω)		Coupling Coefficient
	nH	@25°C	@100°C	@125°C	Pins 1-4	Pins 2-3	Pins 1-4	Pins 2-3	Typ
ATL-1Z120705SR10M	100	75	60	50	50	35	0.25	0.50	0.92
ATL-1Z120705SR12M	120	55	45	40	50	35	0.25	0.50	0.93
ATL-1Z120705SR15M	150	45	35	30	50	35	0.25	0.50	0.94
ATL-1Z120705SR18M	180	38	28	20	50	35	0.25	0.50	0.95
ATL-1Z120705SR22M	220	30	20	15	50	35	0.25	0.50	0.96

Test Conditions

Isat: DC current at which the inductance drops 20% from original value.

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

Self-Resonant Frequency (SRF): 120+ MHz

Leakage Inductance: 14nH (Test 100KHz/0.1V across pins 1-4 while pins 2-3 are short)

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 <70% RH

Working Voltage: 50VDC

ATL-1Z120705S is **RoHS Compliant and Pb free**



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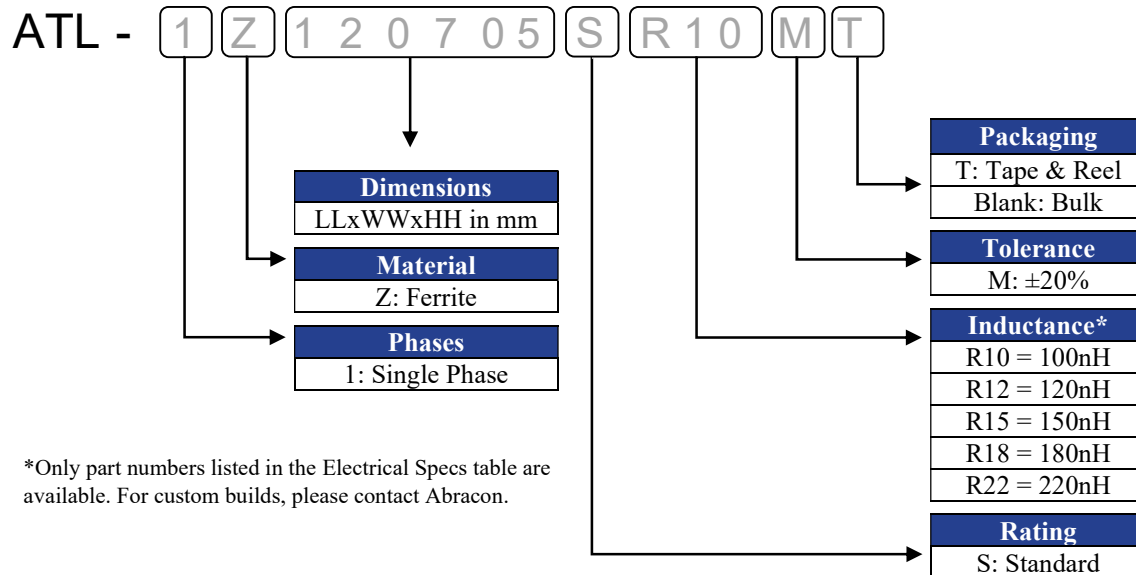


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Part Number Identification



Marking

Location: Side



Inductance Code

e.g. 100nH

Marking Method = Ink Marking



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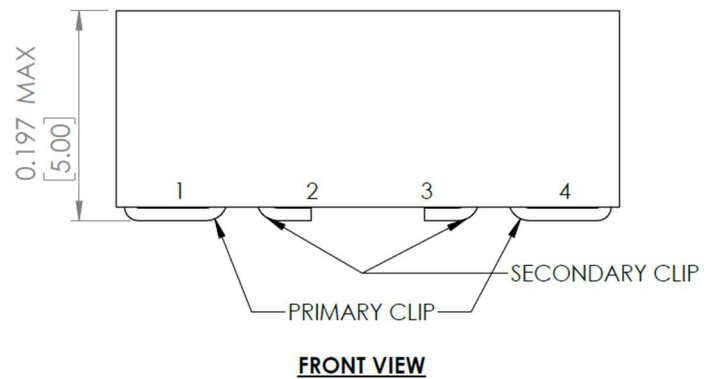
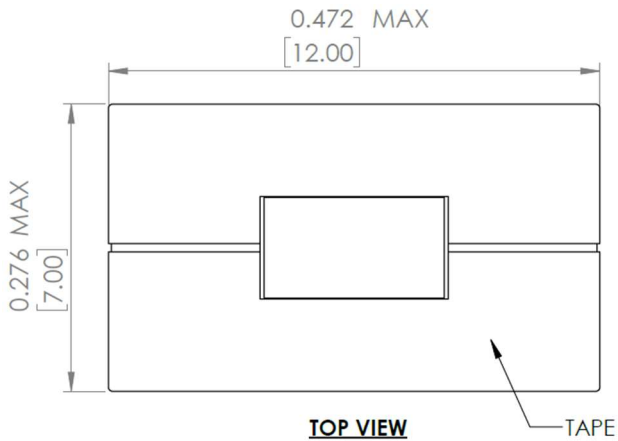


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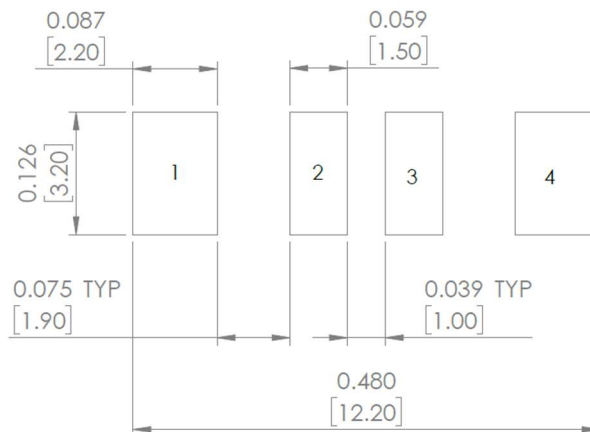


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Mechanical Specifications

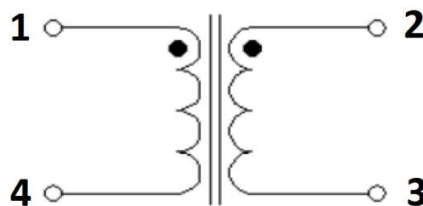


Recommended Land Pattern



Dimensions: inches[mm]

Schematic



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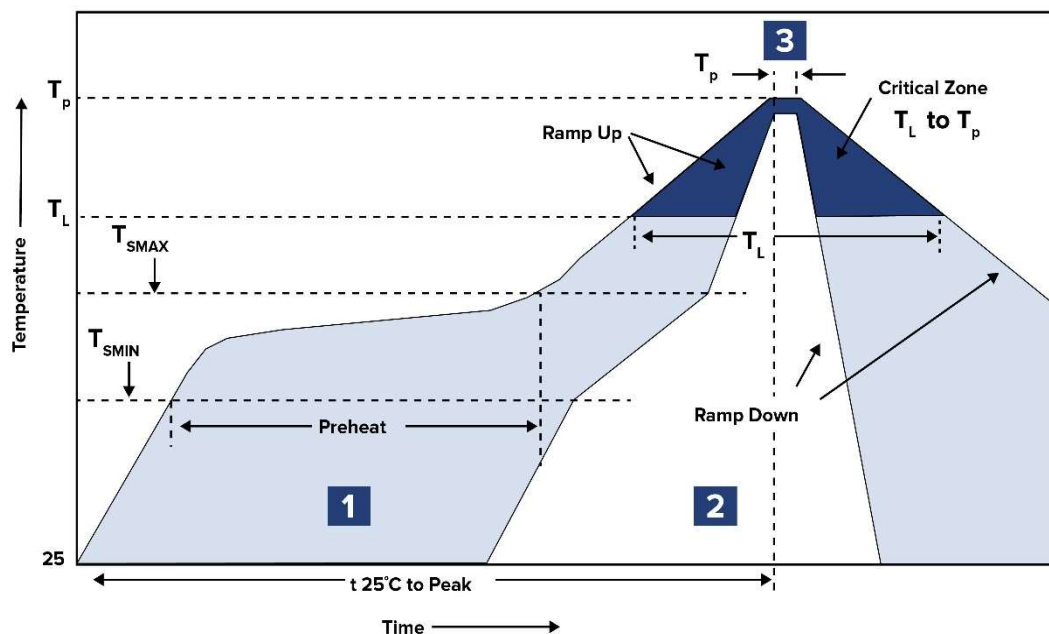


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	80 ~ 120 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak heat	T_P 245°C	10 sec. MAX

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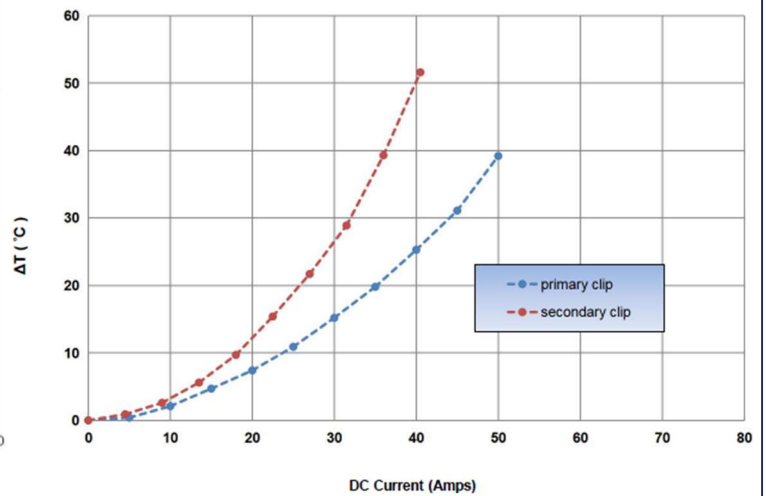
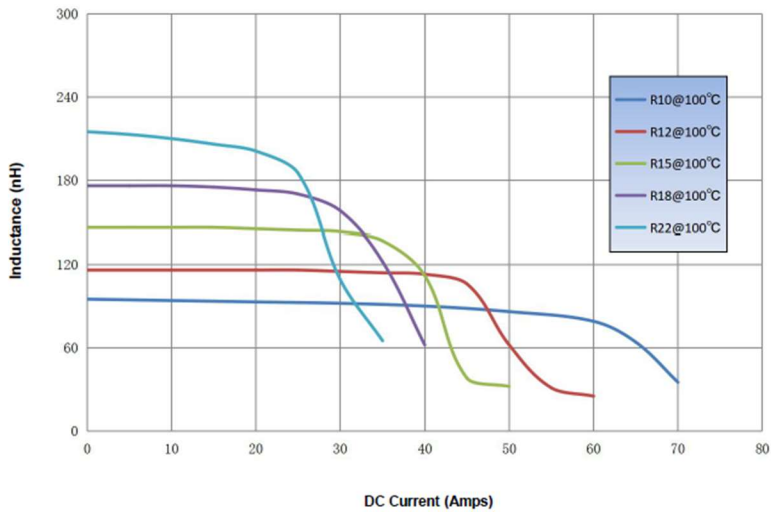
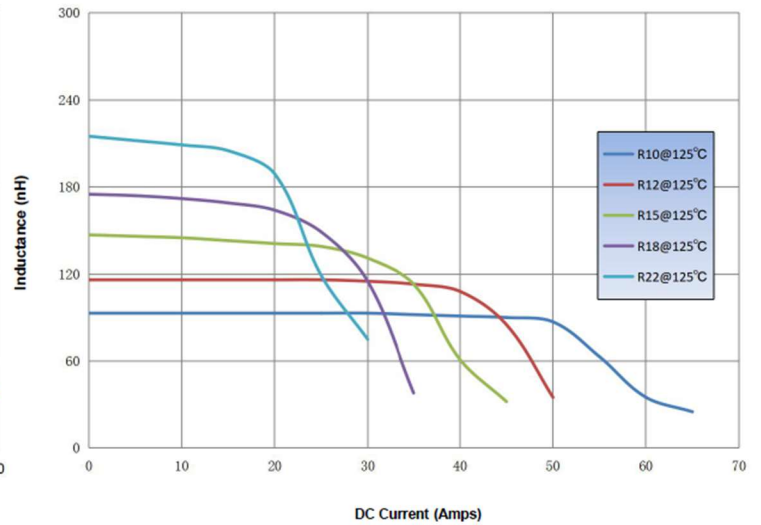
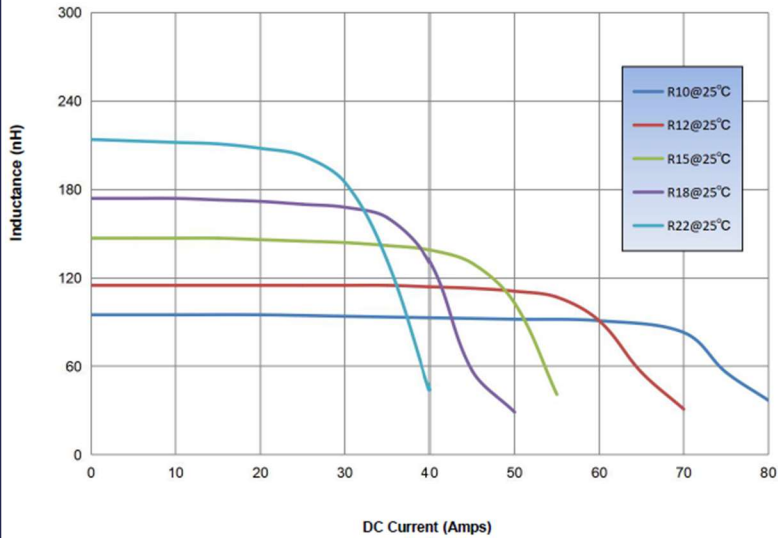


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Performance Graphs



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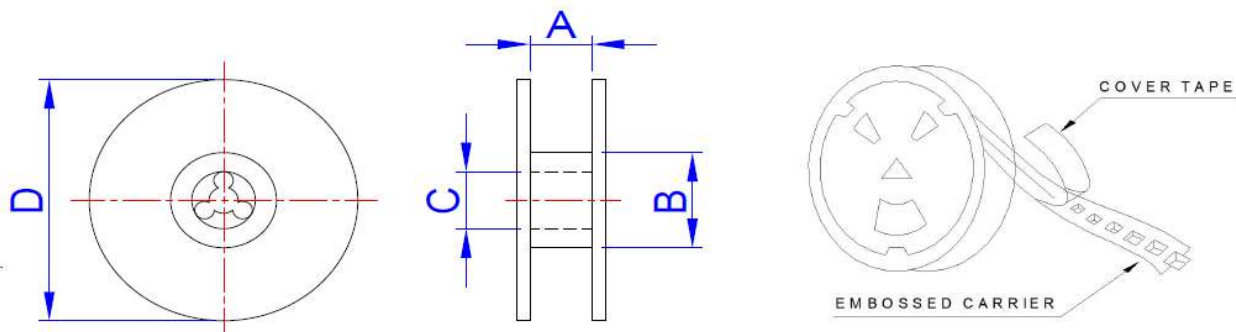
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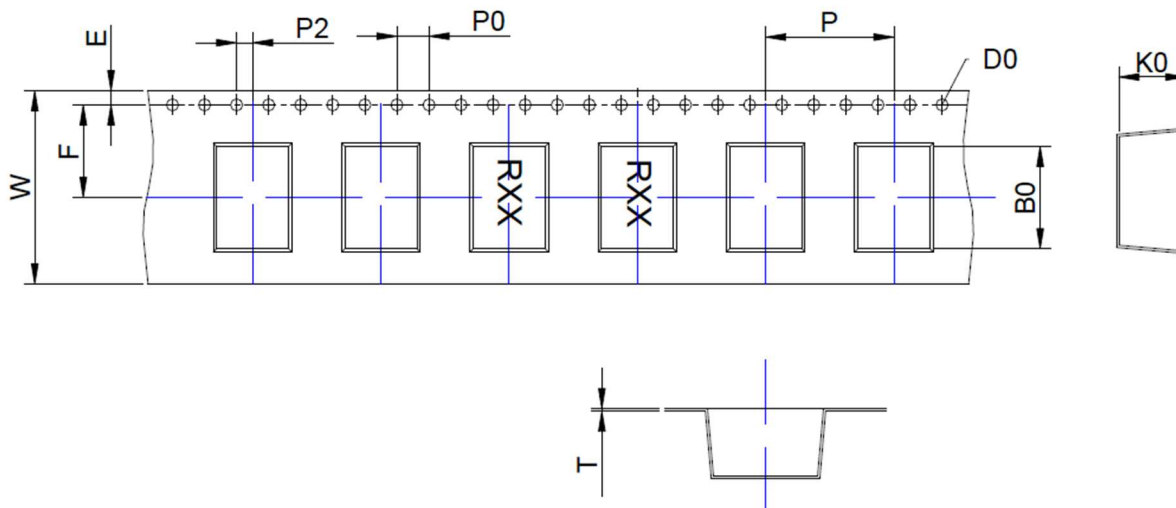
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Packaging

Tape & Reel: 700 pcs/reel



Reel	A	B	C	D
13" x 24mm	24.5 ± 0.5	100 ± 2	13.0 ± 0.5	330 (REF)



W	P	P0	P2	E	F	D0	T	A0	B0	K0
24.0 ± 0.3	16.0 ± 0.1	4.0	2.0	1.75	11.5	1.5	0.5 ± 0.05	7.2 ± 0.1	12.2 ± 0.1	5.2 ± 0.1

Dimensions: mm

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



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