

Molded Power Inductor



ASPI-0520LR Series

Request Samples



Check Inventory



5.7 x 5.3 x 2.1 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- High saturation current.
- Low loss due to low DC resistance.
- Frequency application up to 3MHz.
- Low profile with max thickness 2.1mm.
- 100% lead free and meets RoHS standard.
- Suitable for reflow soldering.
- High reliable SMD package

Applications

- DC/DC converters.
- Power circuitry for Notebooks, Netbooks, desktops and servers.
- Low profile, high current power supplies.

Electrical Specifications

Part Number ASPI-0520LR- Inductance Code	Inductance	Tolerance	DCR Typ	DCR Max	Saturation Current	Temperature Rise Current
Units	μH	%	$\text{m}\Omega$	$\text{m}\Omega$	A	A
Symbol	L	M			Isat	Irms
ASPI-0520LR-1R0	1.0	M	16.8	18.5	8.0	7.5
ASPI-0520LR-2R2	2.2	M	33.0	36.0	5.0	5.5
ASPI-0520LR-3R3	3.3	M	45.0	50.0	4.2	4.5
ASPI-0520LR-4R7	4.7	M	52.0	58.0	3.7	3.7
ASPI-0520LR-5R6	5.6	M	65.0	75.0	3.3	3.5

Test Conditions

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in HP-4338B milli ohm meter.(or equivalent).
3. Isat: Based on inductance change ($\Delta L/L_0 : \leq -20\%$)
4. Irms: Based on temperature rise ($\Delta T : 40^\circ\text{C TYP.}$)

Operating Temperature

-55°C to +125°C (Including self generated heat)

Storage Temperature and Humidity

+25°C to +35°C, 45% to 85% RH

ASPI-0520LR is RoHS/RoHS II Compliant and Pb free

ASPI-0520LR is MSL level: 1

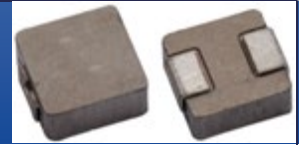


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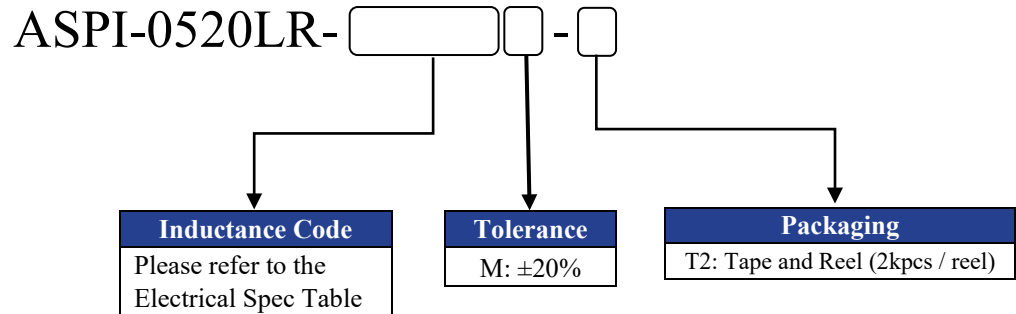


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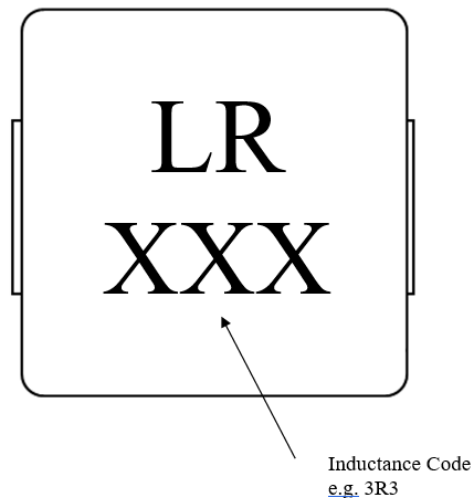


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Part Number Identification



Marking



Marking Method: INK

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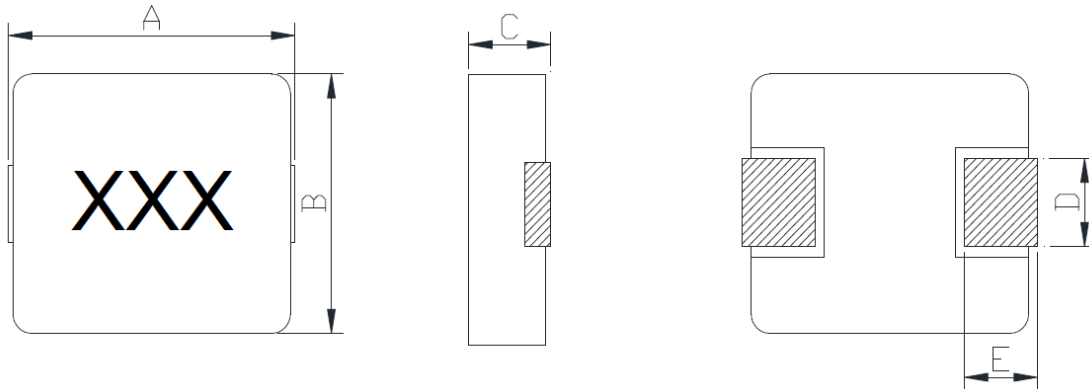


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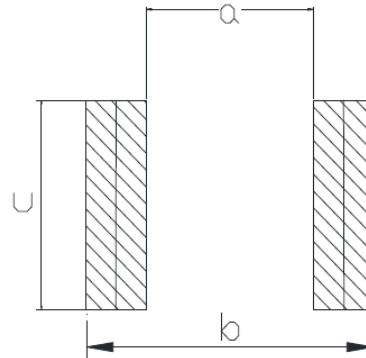


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Mechanical Specifications



A	B	C	D	E
5.7 ±0.3	5.3 ±0.4	2.1 MAX	2.0 ±0.5	1.2 ±0.5



Recommended Layout

a	b	c
3.0 TYP	7.0 TYP	2.5 TYP

Dimension: mm

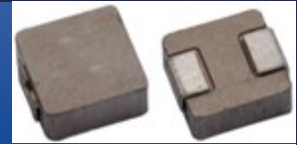


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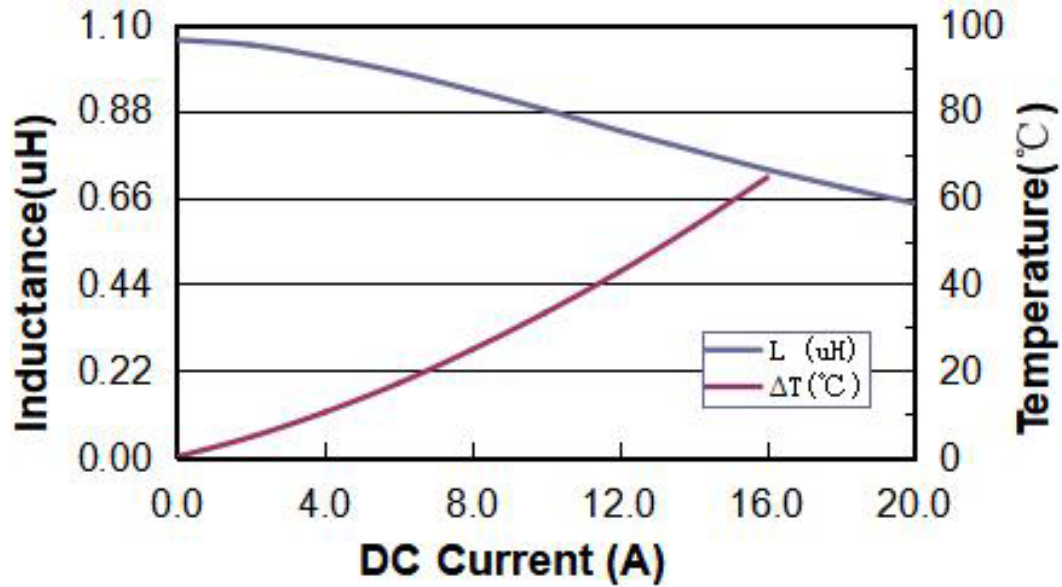
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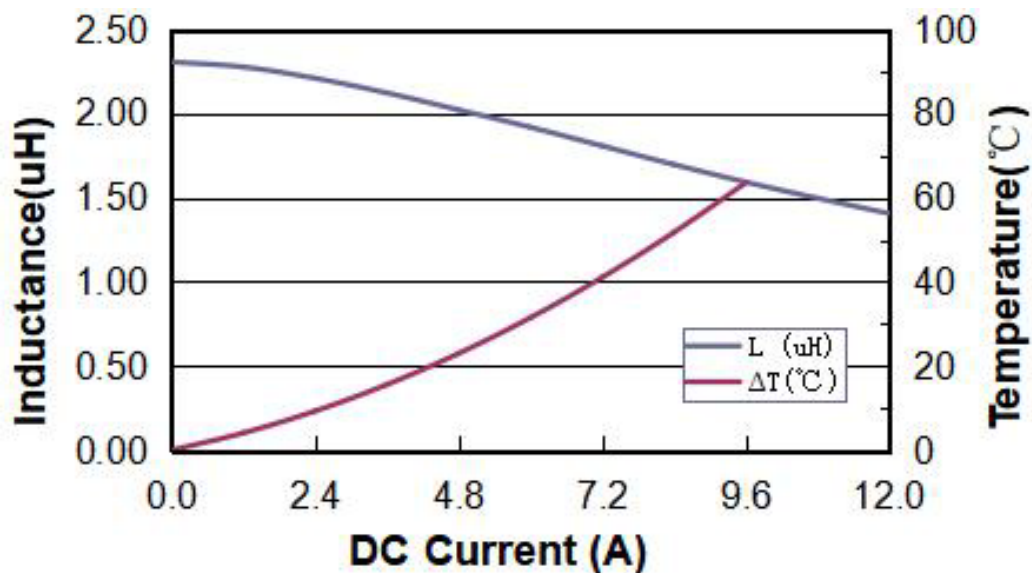
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Performance Graphs

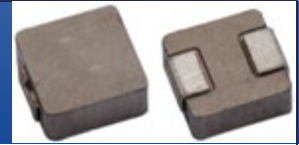
ASPI-0520LR-1R0



ASPI-0520LR-2R2



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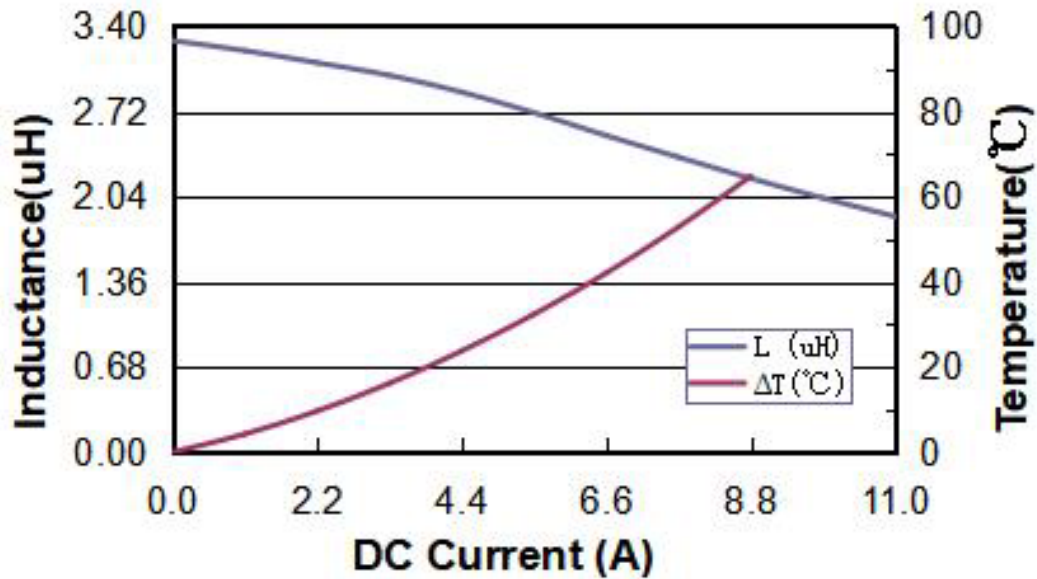


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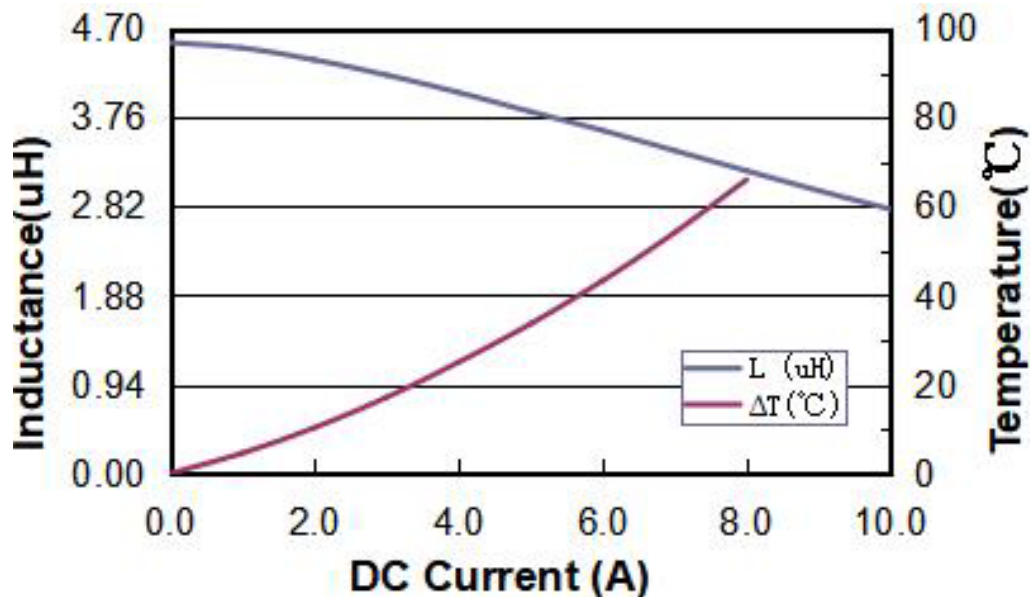


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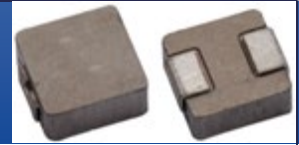
ASPI-0520LR-3R3



ASPI-0520LR-4R7



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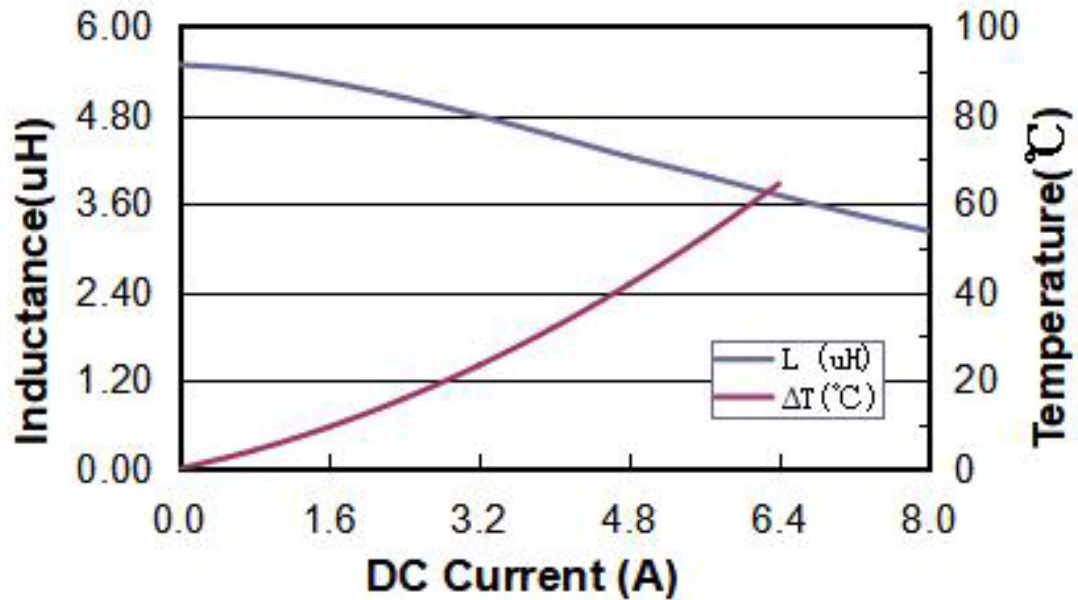


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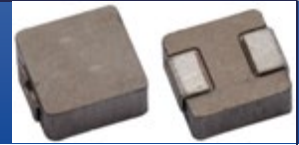


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ASPI-0520LR-5R6



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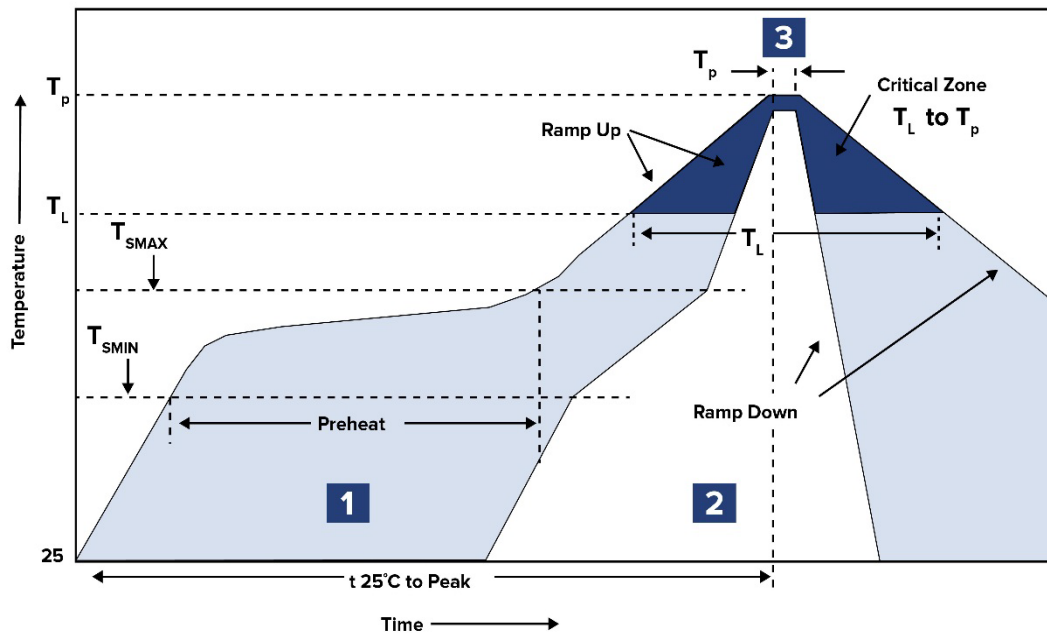


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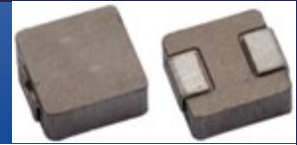
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Reflow Soldering Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C	60 ~ 100 sec.
2	Reflow	T_L 200°C	20 sec. MAX
3	Peak heat	T_P 250°C	3 sec. MAX

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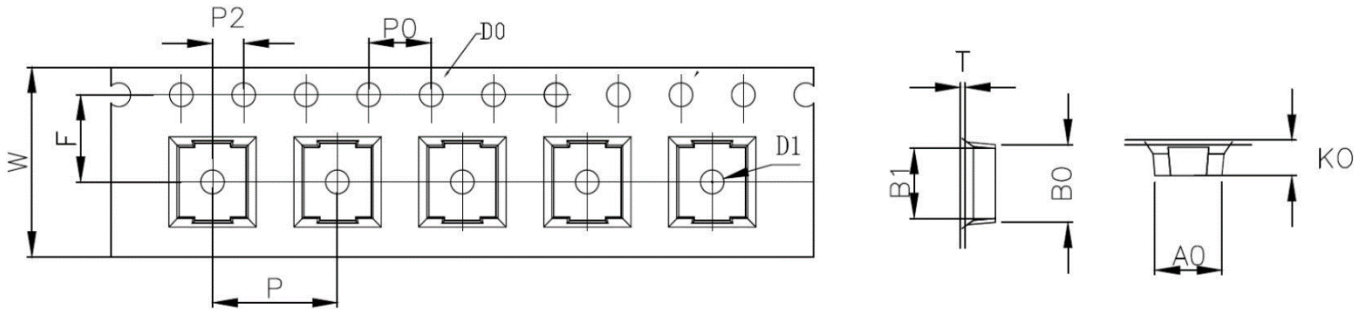
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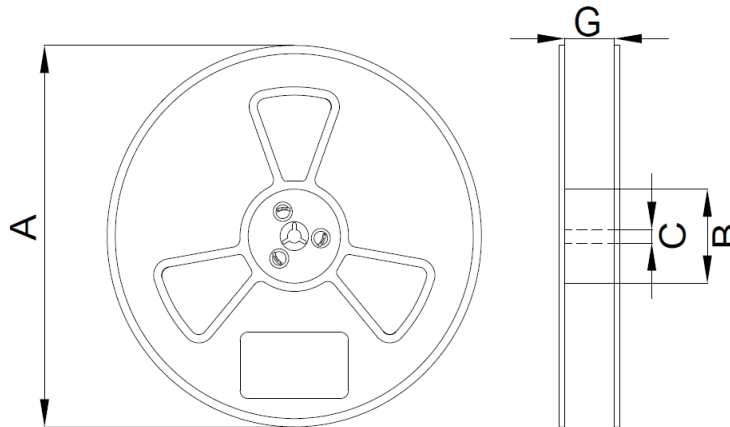
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Packaging

Tape & Reel: 2,000pcs/Reel



W	A0	B0	K0	P	F	E	D0	P0	P2	T
12.0 ±0.3	5.7 ±0.3	5.9 ±0.3	3.4 ±0.3	8.0 ±0.1	5.5 ±0.1	1.75 ±0.1	1.5 ±0.1	4.0 ±0.1	2.0 ±0.1	±0.35 typ



A	B	C	G
330 ±1.0	100 ±1.0	13.2 ±0.5	12.5 ±0.2

Dimensions: mm

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