

# Molded SMD Power Inductor

ASPI-8030LR

Request Samples



Check Inventory



8.2 x 8.6 x 2.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Features

- Shielded construction
- Soft saturation
- Low DCR, High Efficiency
- Designed for switching frequencies between 100KHz-2MHz

## Applications

- DC/DC Switching converters
- Power supplies for Notebooks, workstations, and Servers
- Low Profile applications
- High current, transient load applications
- Applications requiring extended temperature.

## Electrical Specifications

Part Number	Inductance	Tolerance	DC Resistance	Saturation Current	Temperature Rise Current
	0.1MHz/1V		Max	Typ.	Typ.
Units	$\mu\text{H}$	%	m $\Omega$	A	A
Symbol	L		DCR	Isat	Irms
ASPI-8030LR-R22	0.22	M, N	1.62	24.0	36.0
ASPI-8030LR-R33	0.33	M, N	2.38	18.0	27.0
ASPI-8030LR-R47	0.47	M, N	2.72	18.0	24.0
ASPI-8030LR-R68	0.68	M, N	3.99	15.2	20.0
ASPI-8030LR-R82	0.82	M, N	4.87	15.0	18.5
ASPI-8030LR-1R0	1.0	M, N	6.49	14.8	16.0
ASPI-8030LR-1R5	1.5	M, N	9.94	11.3	12.5
ASPI-8030LR-2R2	2.2	M, N	14.70	10.4	10.4
ASPI-8030LR-4R7	4.7	M, N	28.60	5.4	7.6
ASPI-8030LR-6R8	6.8	M, N	37.80	5.0	6.5
ASPI-8030LR-8R2	8.2	M, N	46.70	4.2	5.9
ASPI-8030LR-100	10.0	M, N	55.10	3.8	5.3
ASPI-8030LR-150	15.0	M, N	85.30	3.8	4.3
ASPI-8030LR-220	22.0	M, N	132.0	2.8	3.6
ASPI-8030LR-330	33.0	M, N	177.0	2.1	3.1

## Test Conditions

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

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40 °C) from 20°C ambient

**Operating Temperature:** -55°C ~ +125°C (including self-temperature rise)

**Storage Condition:** -10°C ~ +40°C and R.H. 70 max

**Operating Voltage:** 50V (across inductor)

ASPI-8030LR Series is **RoHS Compliant and Pb free**

MSL level: 1



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REVISED: 06-28-21

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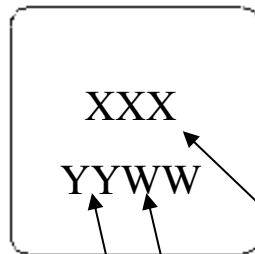


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## Marking



Inductance Code

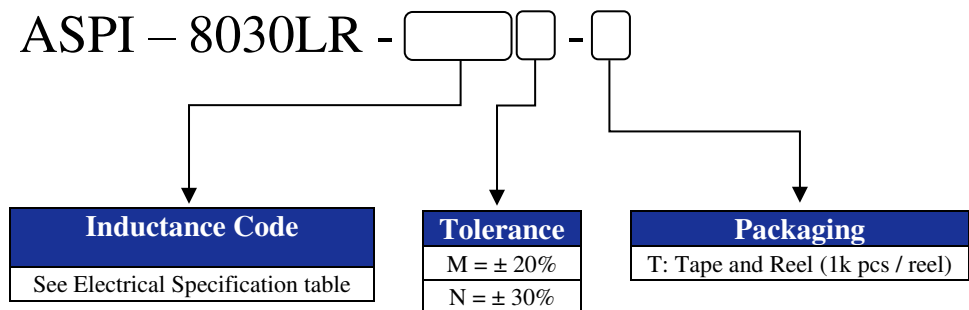
e.g. 1R0

W: Week: E.g. 05 for the 5<sup>th</sup> week of the year.

Y: Year: E.g. 20 for 2020

Marking Method: Ink

## Part Identification



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**ASPI-8030LR**

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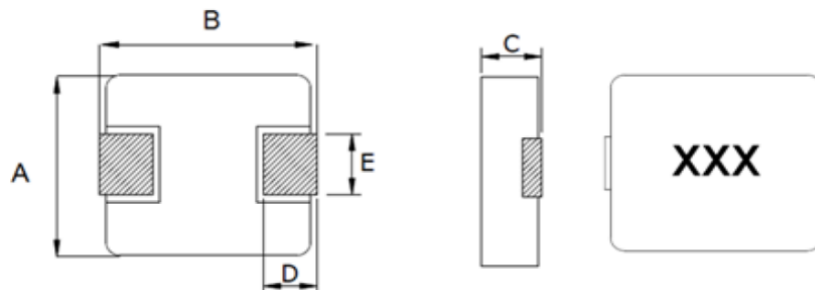


Check Inventory



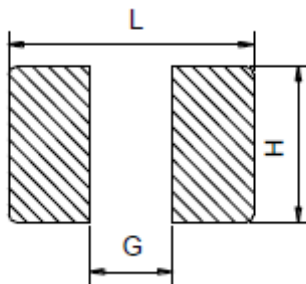
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**RoHS/RoHS II Compliant**  
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## Mechanical Dimensions



Series	A	B	C	D	E
ASPI-8030HS	8.2 ± 0.3	8.6 ± 0.3	2.8 ± 0.2	1.5 ± 0.3	5.0 ± 0.2

## Recommended Land Pattern



L	G	H
9.6 Ref.	4.8 Ref.	5.3 Ref.

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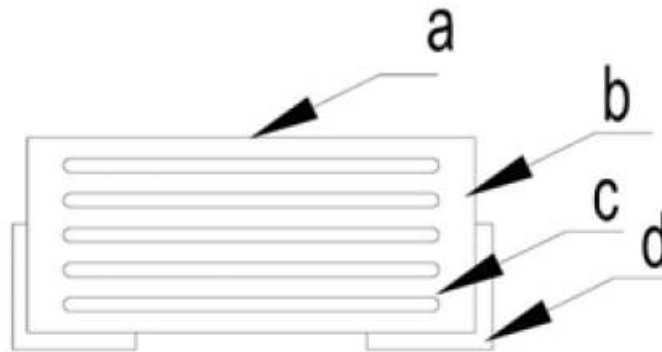


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## Materials



	Components	Material
a	<b>Marking</b>	Ink (black)
b	<b>Core</b>	Metal Alloy
c	<b>Wire</b>	Polyurethane Copper Wire
d	<b>Terminal</b>	Copper plated with Sn

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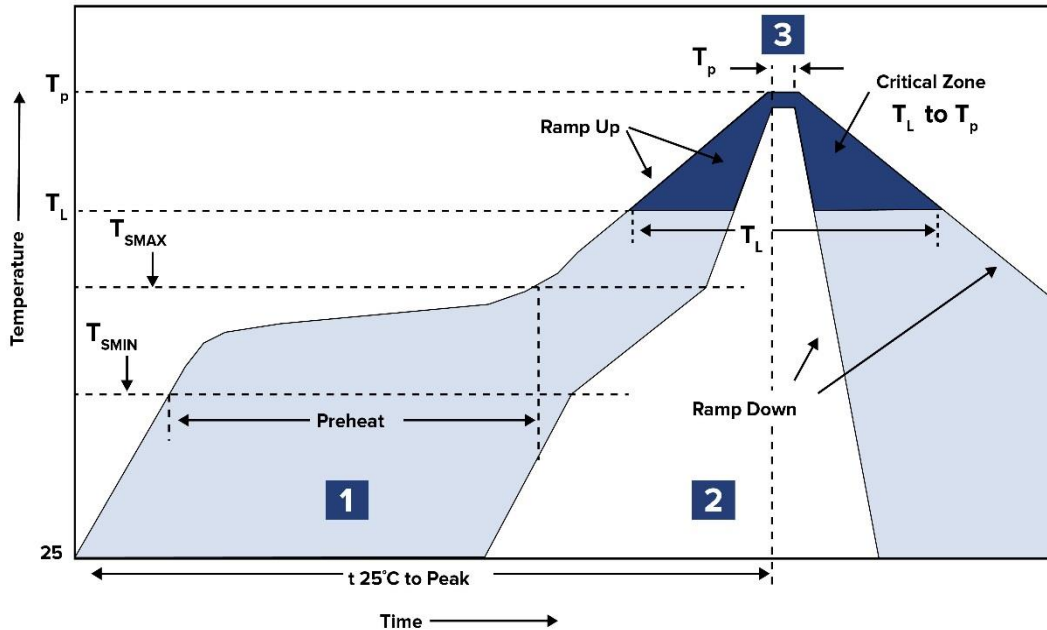


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## Reflow Profile



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±5°C	10 sec. MAX

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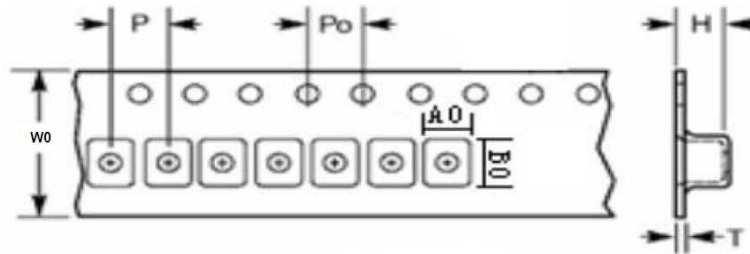
Check Inventory



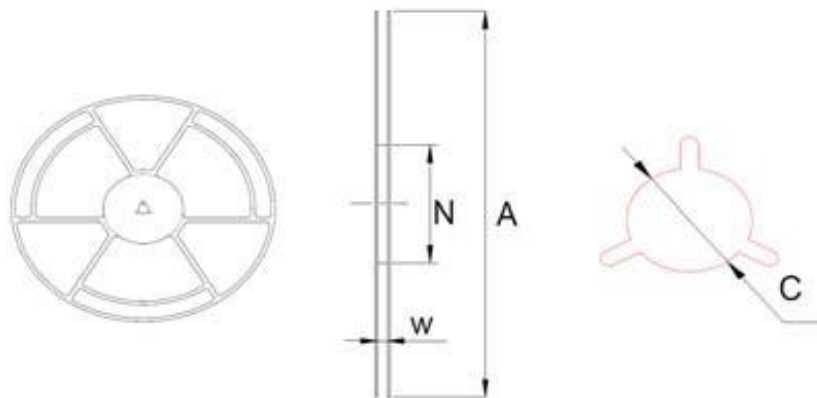
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## Packaging

**Packing (Tape & Reel: 1000 pcs/reel)**



$W_0$	$P$	$P_0$	$H$	$T$	$A_0$	$B_0$
16±0.3	12±0.1	4±0.1	3.3±0.1	0.35±0.05	8.45±0.1	9.65±0.1



$A$	$N$	$C$	$W$
330±2.0	100±2.0	13±1.0	16.4±2.0

**Dimension: mm**

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