

# Molded SMD Power Inductor

ASPI-8040LR

Request Samples



Check Inventory



8.2 x 8.6 x 3.8 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	$\mu$ H	%	m $\Omega$	A	A
Symbol	L		DCR	Isat	Irms
ASPI-8040LR-R22	0.22	M, N	1.35	22.0	34.0
ASPI-8040LR-R33	0.33	M, N	2.15	16.0	27.5
ASPI-8040LR-R47	0.47	M, N	2.38	15.0	25.0
ASPI-8040LR-R68	0.68	M, N	3.22	14.5	22.2
ASPI-8040LR-R82	0.82	M, N	3.88	14.0	19.5
ASPI-8040LR-1R0	1.0	M, N	4.63	12.0	18.2
ASPI-8040LR-2R2	2.2	M, N	9.41	10.2	14.5
ASPI-8040LR-3R3	3.3	M, N	14.9	9.7	10.5
ASPI-8040LR-4R7	4.7	M, N	22.6	8.7	8.0
ASPI-8040LR-5R6	5.6	M, N	28.6	7.6	7.4
ASPI-8040LR-6R8	6.8	M, N	33.4	6.7	7.0
ASPI-8040LR-8R2	8.2	M, N	45.0	6.6	5.7
ASPI-8040LR-100	10	M, N	51.8	6.4	5.4
ASPI-8040LR-150	15	M, N	65.3	3.7	4.9
ASPI-8040LR-220	22	M, N	94.2	3.3	4.3
ASPI-8040LR-330	33	M, N	144.0	3.2	3.2

## Test Conditions

**Isat:** DC current at which the inductance drops 20% 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:** 75V (across inductor)

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

**MSL level: 1**



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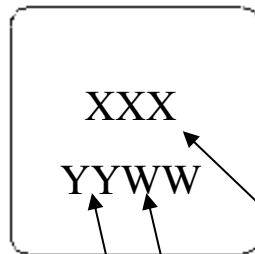


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## Marking



Inductance Code

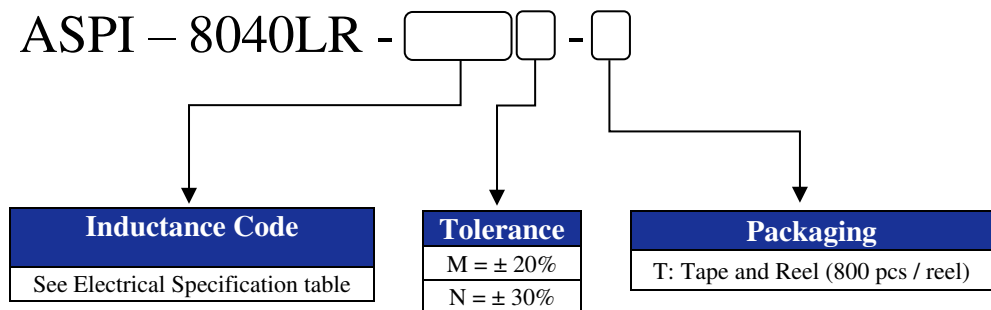
e.g. 5R6

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-8040LR**

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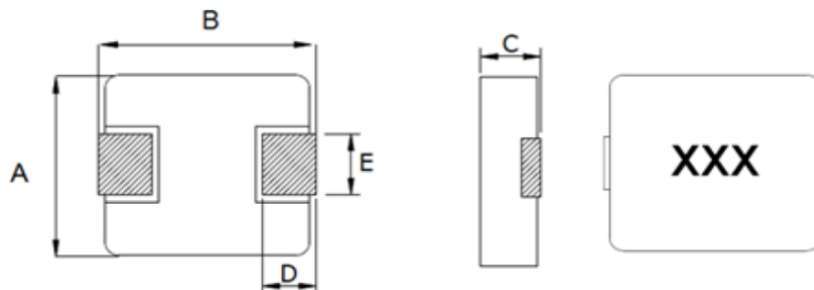


Check Inventory



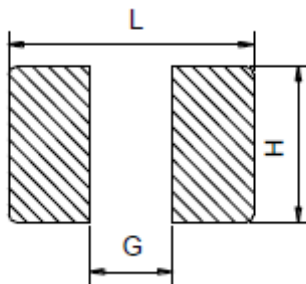
8.2 x 8.6 x 3.8 mm  
**RoHS/RoHS II Compliant**  
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## Mechanical Dimensions



Series	A	B	C	D	E
ASPI-8040HS	8.2 ± 0.3	8.6 ± 0.3	3.8 ± 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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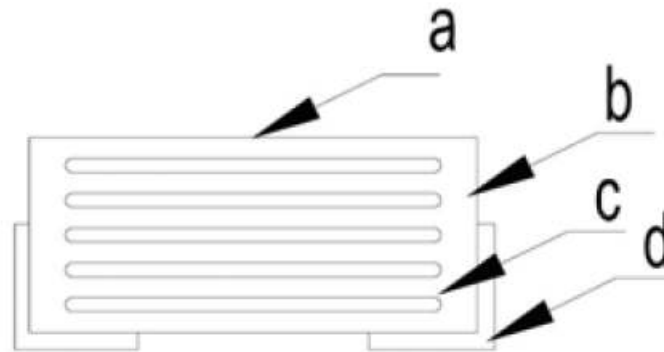


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## Materials



	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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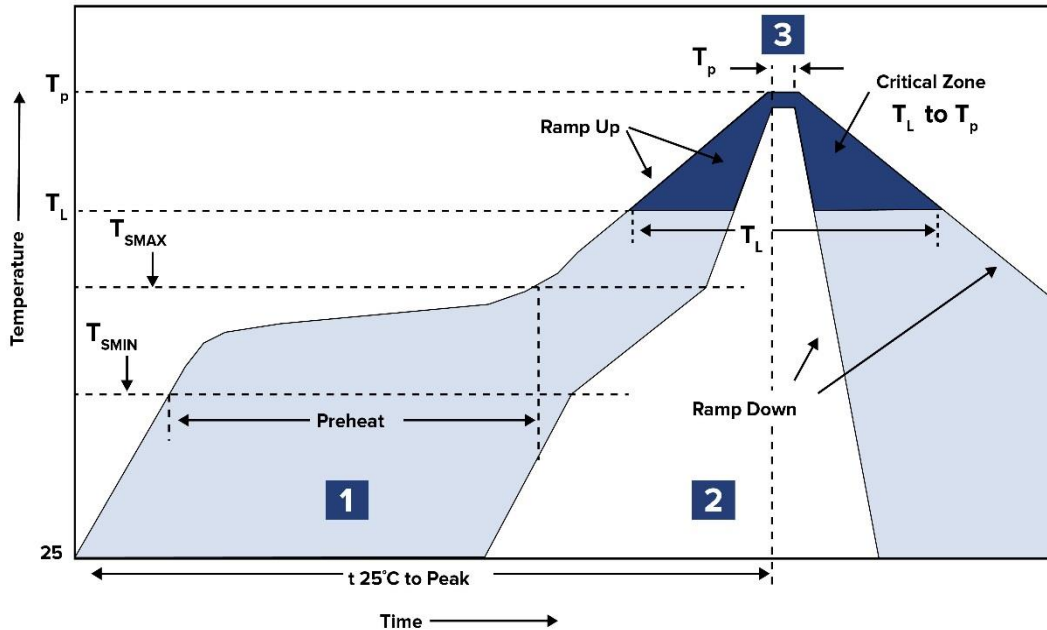


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## Reflow Profile



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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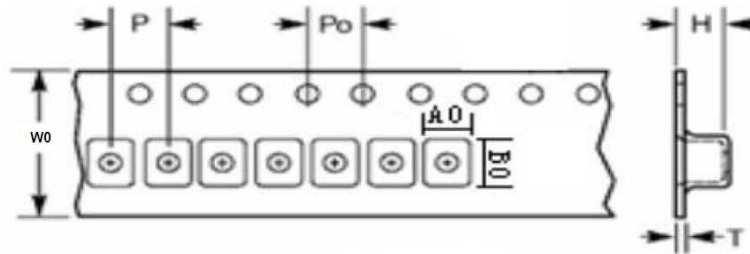
Check Inventory



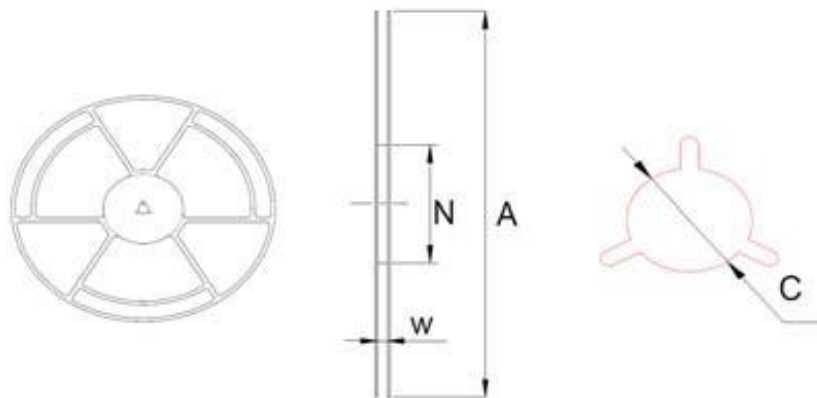
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## Packaging

**Packing (Tape & Reel: 800 pcs/reel)**



$W_0$	$P$	$P_0$	$H$	$T$	$A_0$	$B_0$
$16 \pm 0.3$	$12 \pm 0.1$	$4 \pm 0.1$	$4.3 \pm 0.1$	$0.35 \pm 0.05$	$8.45 \pm 0.1$	$9.65 \pm 0.1$



$A$	$N$	$C$	$W$
$330 \pm 2.0$	$100 \pm 2.0$	$13 \pm 1.0$	$16.4 \pm 2.0$

**Dimension: mm**

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