

# Molded SMD Power Inductor



**ASPI-8040HS**

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
- High Saturation Current
- 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/1.0V		Max	Typ.	Typ.
Units	μH	%	mΩ	A	A
Symbol	L		DCR	Isat	Irms
ASPI-8040HS-R22	0.22	M, N	1.68	45.0	30.7
ASPI-8040HS-R33	0.33	M, N	2.14	36.0	29.5
ASPI-8040HS-R47	0.47	M, N	2.62	31.5	25.0
ASPI-8040HS-R68	0.68	M, N	3.67	24.5	21.0
ASPI-8040HS-R82	0.82	M, N	4.42	24.2	19.0
ASPI-8040HS-1R0	1.0	M, N	5.78	24.0	18.0
ASPI-8040HS-2R2	2.2	M, N	13.7	23.0	10.5
ASPI-8040HS-3R3	3.3	M, N	17.7	20.0	9.2
ASPI-8040HS-4R7	4.7	M, N	32.0	16.7	7.25
ASPI-8040HS-5R6	5.6	M, N	35.5	15.0	6.8
ASPI-8040HS-6R8	6.8	M, N	47.7	15.2	5.7
ASPI-8040HS-8R2	8.2	M, N	50.8	10.0	5.5
ASPI-8040HS-100	10	M, N	59.9	9.0	5.2

## Test Conditions

**Isat:** DC current at which the inductance drops 20% from its initial value.

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

**Operating Temperature:** -40°C ~ +125°C (including self-temperature rise)

**Storage Condition:** -10°C ~ +40°C and R.H. 60 max.

**Operating Voltage:** 75V (across inductor)

**ASPI-8040HS Series is RoHS Compliant and Pb free.**

**MSL level: 1**

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## Part Identification

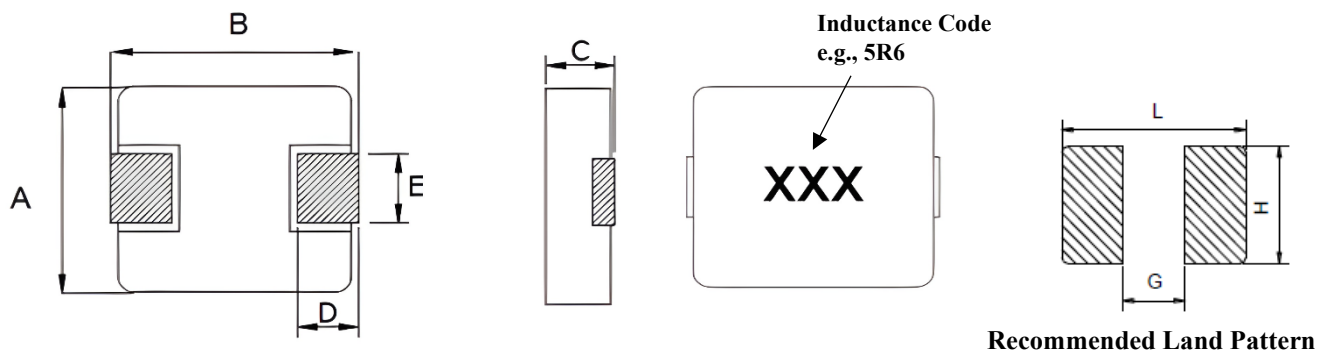
ASPI – 8040HS - [ ] [ ] - [ ]

Inductance Code
See Electrical Specification table

Tolerance
M = ± 20%
N = ± 30%

Packaging
T: Tape and Reel (800pcs / reel)
Blank: Bulk

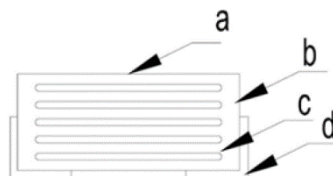
## Mechanical Dimensions



Series	A	B	C	D	E	L	G	H
ASPI-8040HS	8.2 ± 0.3	8.6 ± 0.3	3.8 ± 0.2	1.5 ± 0.3	5.0 ± 0.2	9.6 Ref.	4.8 Ref.	5.3 Ref.

Dimension: mm

## Materials



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



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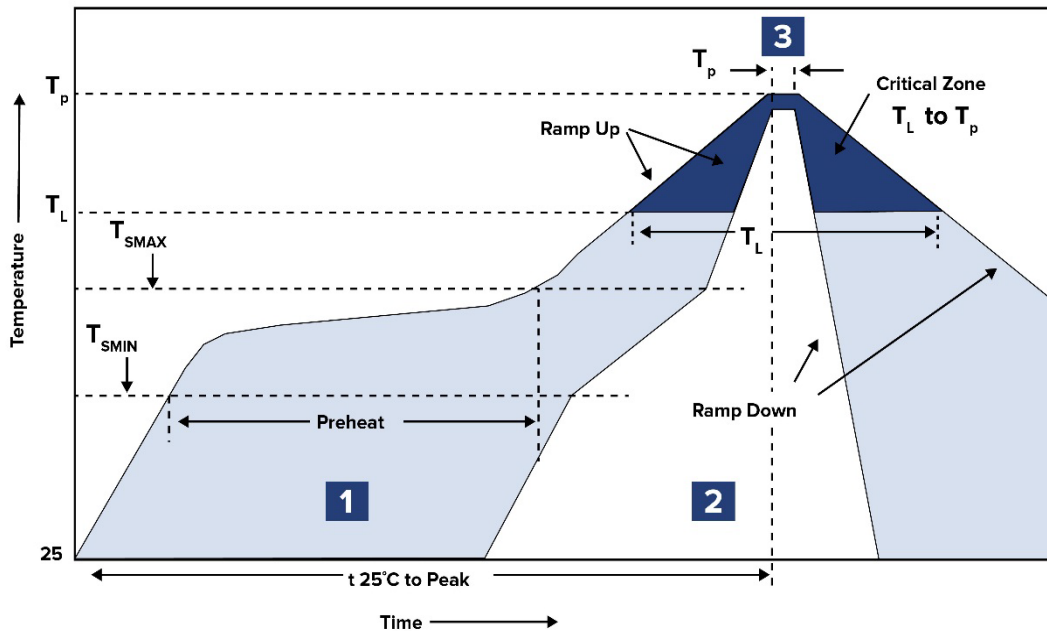


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## Reflow Profile



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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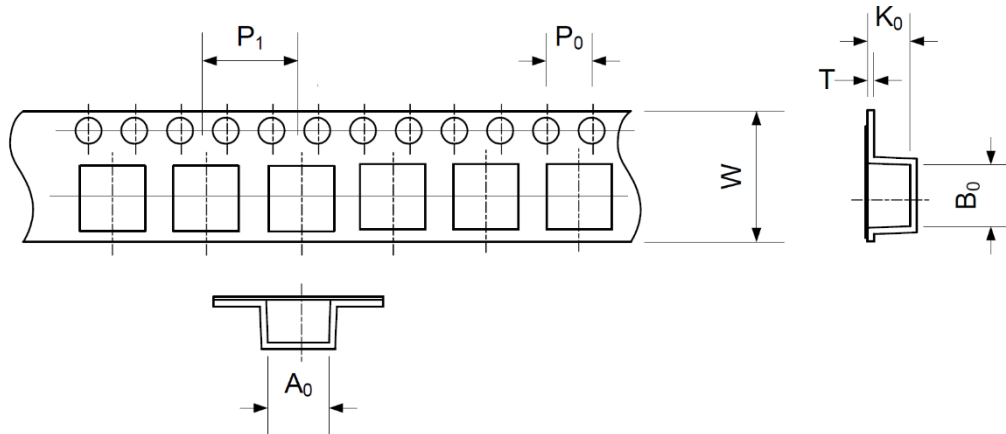
Check Inventory



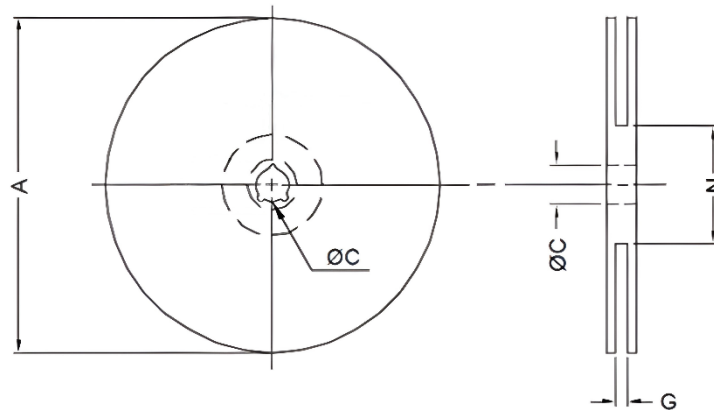
**8.2 x 8.6 x 3.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

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



W	P1	P0	K0	T	A0	B0
24 ± 0.3	16 ± 0.1	4 ± 0.1	4.6 ± 0.1	0.4 ± 0.05	8.8 ± 0.1	9.0 ± 0.1



A	N	C	G
330 ± 2.0	100 ± 2.0	13.4 ± 1.0	24.4 ± 2.0

**Dimension: mm**

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