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 (ΔT, 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

ABRACON

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
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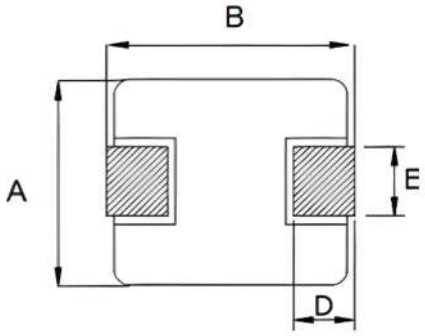
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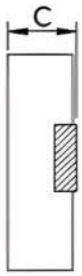
Part Identification

ASPI – 8040HS - ☐☐ - ☐

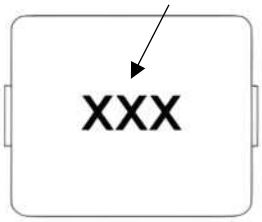
Inductance Code	Tolerance	Packaging
See Electrical Specification table	M = ± 20%	T: Tape and Reel (800pcs / reel)
	N = ± 30%	Blank: Bulk

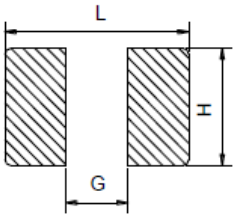
Mechanical Dimensions





Inductance Code
e.g., 5R6



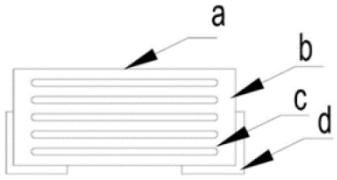


Recommended Land Pattern

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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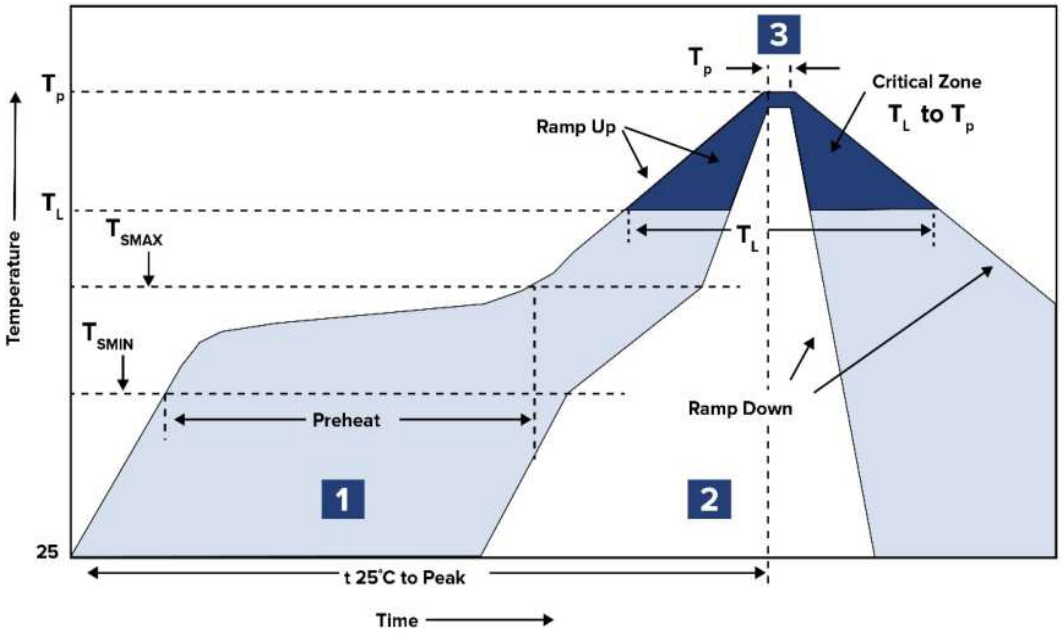


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ 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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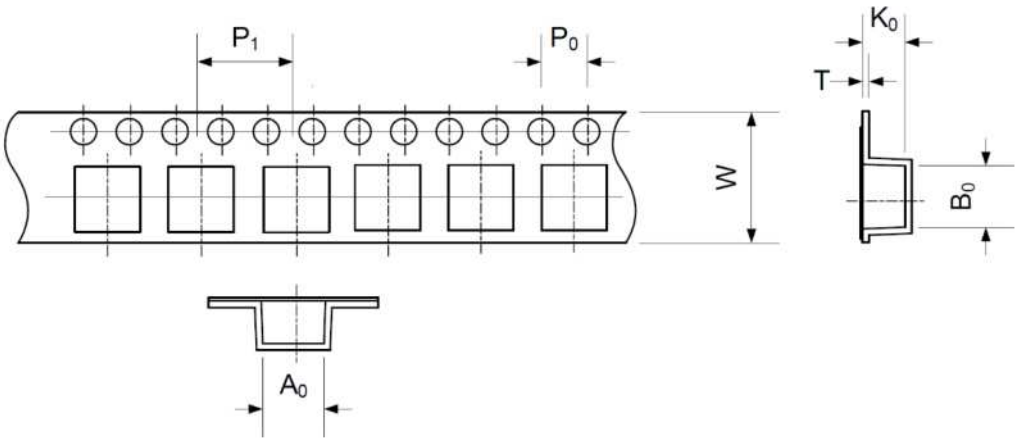
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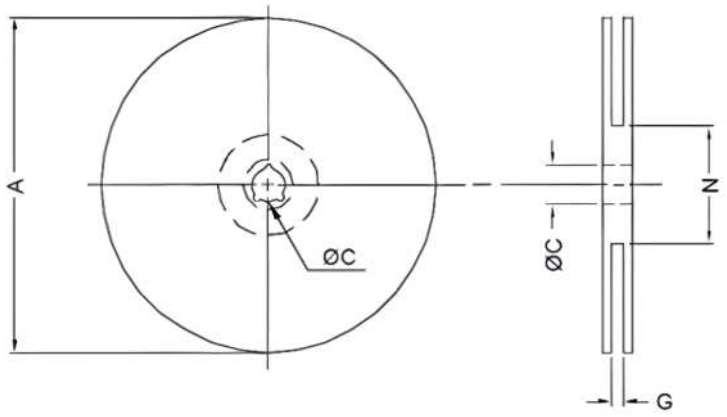
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Packaging

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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