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	µH	%	mΩ	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 (ΔT, 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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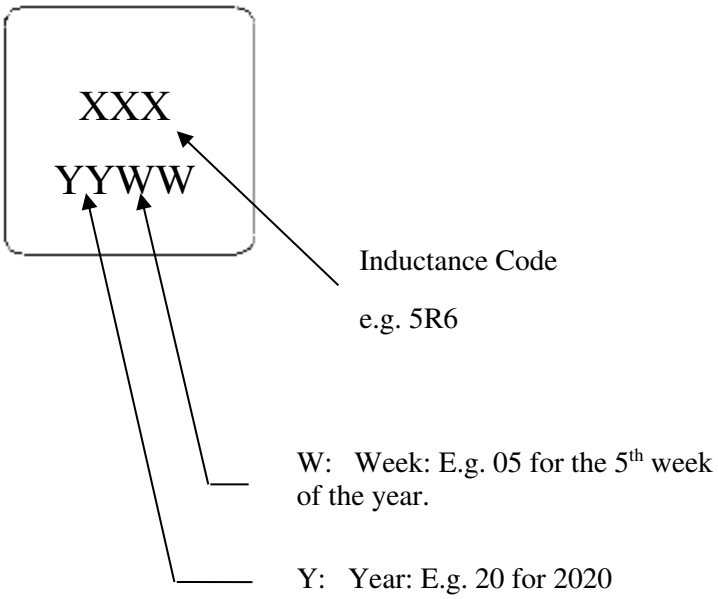
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Marking



Marking Method: Ink

Part Identification

ASPI – 8040LR - ☐☐ - ☐

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

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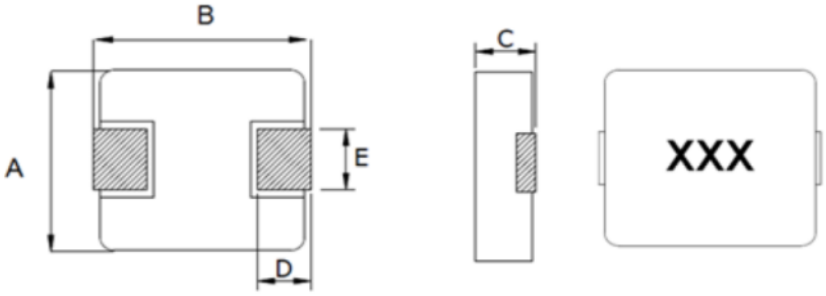
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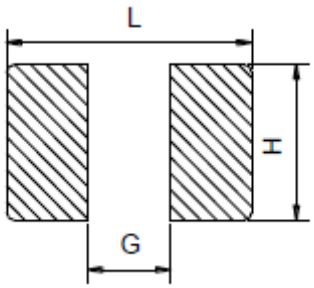
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Mechanical Dimensions



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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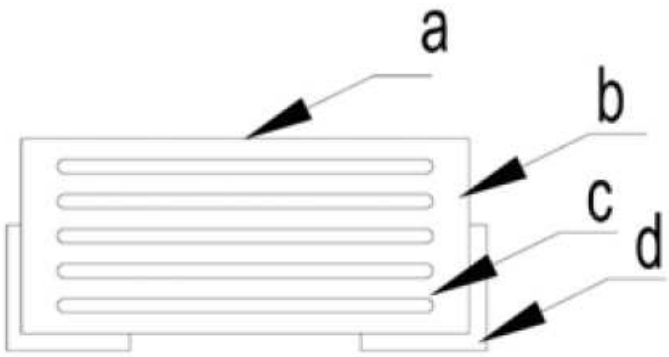
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Materials



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

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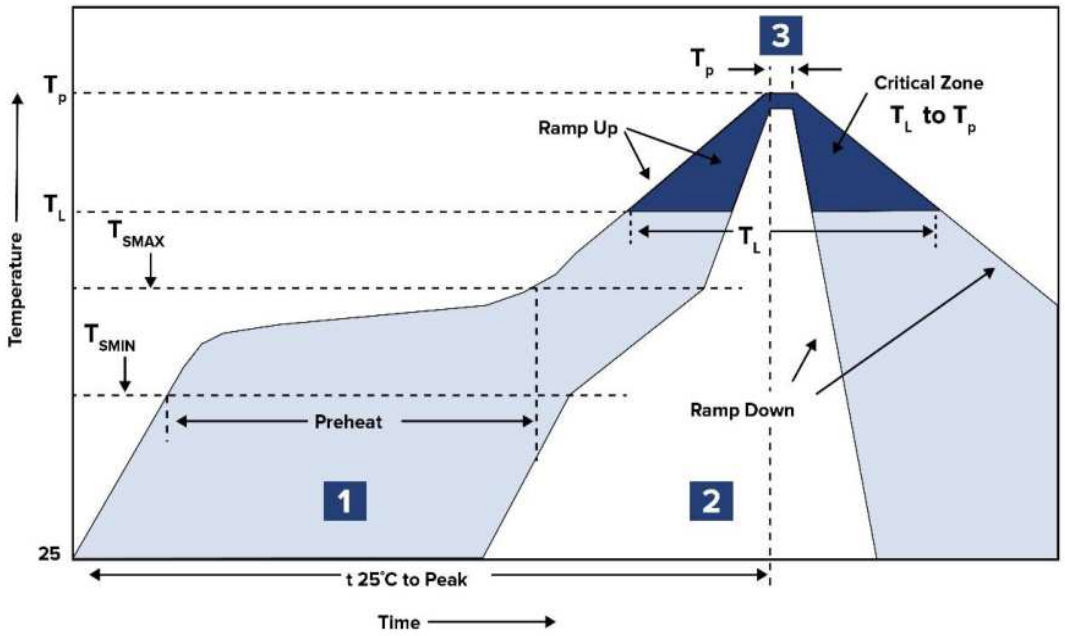
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Reflow Profile



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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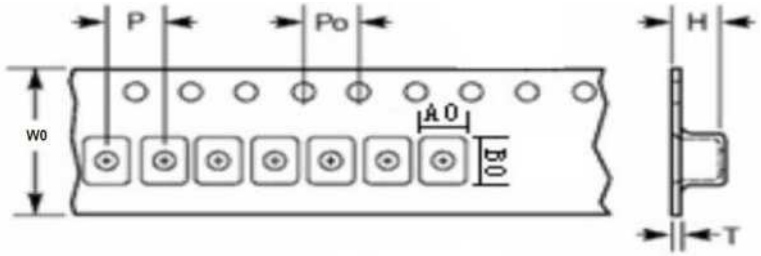
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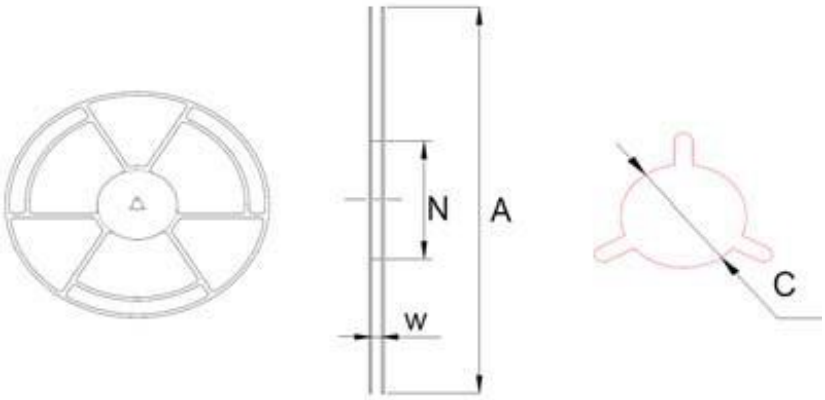
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Packaging

Packing (Tape & Reel: 800 pcs/reel)



W0	P	P0	H	T	A0	B0
16±0.3	12±0.1	4±0.1	4.3±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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