



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

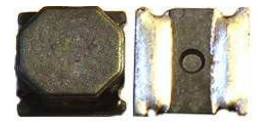
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Wire Wound Magnetically Shielded SMD Power Inductor



8.0 x 8.0 x 4.2mm

ASPI-8040S



RoHS/RoHS II compliant

## FEATURES:

- Shielded magnetics, low radiation
- Large Terminal surface for good PCB bonding
- Low DCR, High Energy storage, suitable for large currents
- Ideal for a variety of DC-DC converter inductor applications

## APPLICATIONS:

- Portable communication equipment
- OA equipment
- LCD, DVD, modem, set-top box
- DC/DC converters

## ELECTRICAL SPECIFICATIONS:

Abrakon P/N:	ASPI-8040S Series
Operating Temperature	-40°C to +125°C
Storage Temperature	-10°C to +40°C and 70% R.H.

Part Number ASPI-8040S- Inductance Code	Inductance	L Tolerance	DC Resistance (±30%)	Saturation Current	Temperature Rise Current	Min. Self resonant frequency
Units	µH	—	Ω	A	A	MHz
Symbol	L	N, M	DCR	Isat	Irms	SRF
ASPI-8040S-R82	0.82	N	0.008	13.8	6.30	94
ASPI-8040S-1R0	1.0	N	0.008	9.85	6.30	89
ASPI-8040S-1R5	1.5	N	0.010	8.15	5.65	67
ASPI-8040S-2R0	2.0	N	0.012	9.25	5.15	43
ASPI-8040S-2R2	2.2	N	0.012	7.10	5.15	41
ASPI-8040S-3R0	3.0	N	0.014	6.10	4.70	32
ASPI-8040S-3R3	3.3	N	0.017	6.50	4.40	27
ASPI-8040S-3R6	3.6	N	0.017	7.52	4.35	30
ASPI-8040S-3R9	3.9	N	0.017	5.75	4.35	26
ASPI-8040S-4R7	4.7	N	0.019	5.90	4.10	24
ASPI-8040S-5R1	5.1	N	0.019	4.70	4.05	22
ASPI-8040S-5R6	5.6	N	0.021	6.00	3.85	24
ASPI-8040S-6R2	6.2	N	0.021	4.45	3.85	20
ASPI-8040S-6R8	6.8	M	0.024	4.55	3.60	20
ASPI-8040S-8R2	8.2	M	0.026	4.20	3.45	17
ASPI-8040S-100	10	M	0.029	3.60	3.30	15
ASPI-8040S-150	15	M	0.047	2.95	2.60	12
ASPI-8040S-180	18	M	0.053	2.70	2.40	11
ASPI-8040S-220	22	M	0.069	2.40	2.10	9.5
ASPI-8040S-270	27	M	0.078	2.15	2.00	9.2
ASPI-8040S-330	33	M	0.097	2.05	1.80	7.8
ASPI-8040S-360	36	M	0.102	2.00	1.75	7.8
ASPI-8040S-390	39	M	0.107	1.95	1.70	7.8
ASPI-8040S-430	43	M	0.113	1.90	1.65	7.8
ASPI-8040S-470	47	M	0.136	1.75	1.55	6.4
ASPI-8040S-510	51	M	0.142	1.70	1.50	6.4
ASPI-8040S-560	56	M	0.148	1.55	1.45	6.4
ASPI-8040S-620	62	M	0.182	1.50	1.30	6.4
ASPI-8040S-680	68	M	0.196	1.45	1.25	4.9
ASPI-8040S-750	75	M	0.211	1.35	1.20	4.9
ASPI-8040S-820	82	M	0.225	1.30	1.15	5.9
ASPI-8040S-910	91	M	0.272	1.20	1.05	4.9
ASPI-8040S-101	100	M	0.290	1.15	1.00	4.2

ABRACON IS  
ISO9001:2008  
CERTIFIED



**ABRACON**  
CORPORATION

Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)

Revised: 02.03.14

# Wire Wound Magnetically Shielded SMD Power Inductor



8.0 x 8.0 x 4.2mm

ASPI-8040S

RoHS/RoHS II compliant

Part Number ASPI-8040S- Inductance Code	Inductance	L Tolerance	DC Resistance (±30%)	Saturation Current	Temperature Rise Current	Min. Self resonant frequency
Units	μH	—	Ω	A	A	MHz
Symbol	L	N, M	DCR	Isat	Irms	SRF
ASPI-8040S-121	120	M	0.334	1.05	0.95	3.5
ASPI-8040S-151	150	M	0.410	1.10	0.85	3.5
ASPI-8040S-221	220	M	0.599	0.85	0.80	3.5
ASPI-8040S-331	330	M	0.889	0.68	0.64	2.8

## Test Conditions:

- Ambient Temperature: 20± 15°C
- Relative Humidity: 65%±20%
- Air Pressure: 86KPa to 106KPa

Inductance (L): ZM2355 LCR meter or equivalent, 100kHz, 1V<sub>rms</sub>

Direct Current Resistance (DCR): HIOKI 3540 or equivalent

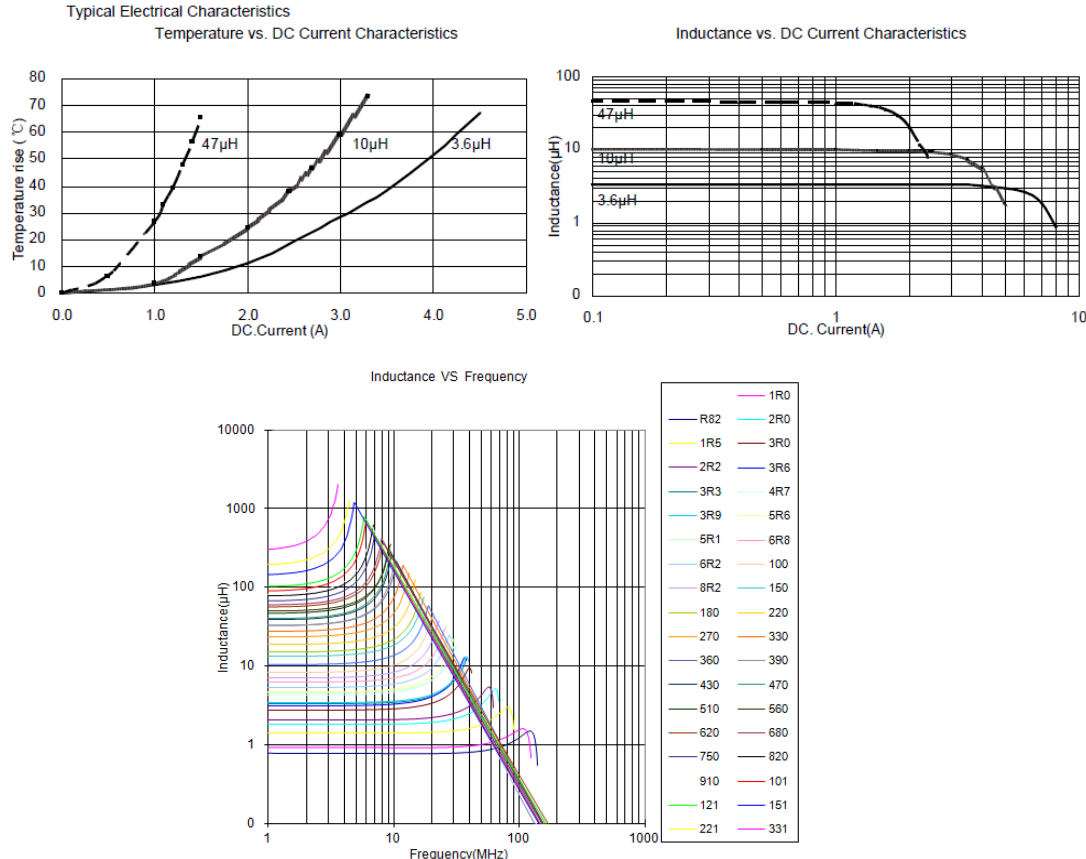
Saturation Current (Isat): Saturation current meter

Isat: Based on inductance change ( $\Delta L/L_0$  :  $\Delta -30\%$ )

Temperature rise current (Irms): Electric Power, Electric current meter, Thermometer

Irms: Based on temperature rise ( $\Delta T$  : 40°C TYP. )

## ELECTRICAL CHARACTERISTICS CURVES



# Wire Wound Magnetically Shielded SMD Power Inductor



8.0 x 8.0 x 4.2mm

ASPI-8040S

RoHS/RoHS II compliant

## ELECTRICAL CHARACTERISTICS CURVES

ASPI-8040S -   -

**Inductance Code**  
Please refer to the table above

**Tolerance**  
M:  $\pm 20\%$  \*  
N:  $\pm 30\%$  \*

**Packaging**  
T: Tape and Reel  
(1kpcs / reel)

\*M for  $6.8\mu\text{H} \sim 330\mu\text{H}$   
\*N for  $0.82\mu\text{H} \sim 6.2\mu\text{H}$

## OUTLINE DIMENSIONS:

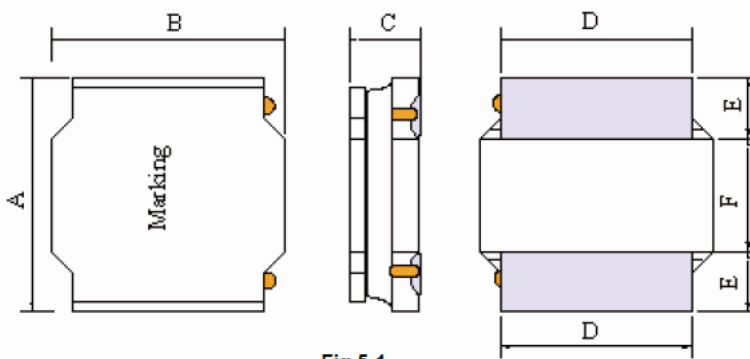
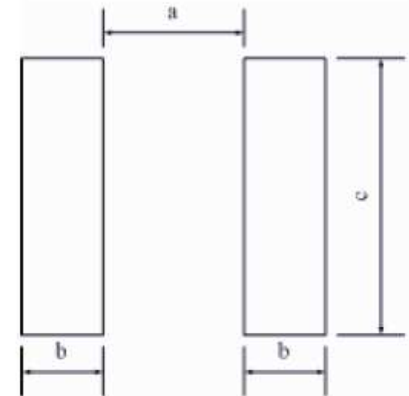


Fig.5-1

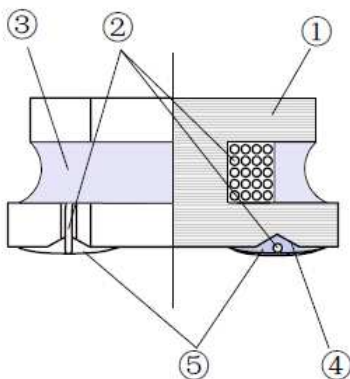
### Recommended Land Pattern



A	B	C Max.	D	E	F	a Typ.	b Typ.	c Typ.
8.0 $\pm$ 0.3	8.0 $\pm$ 0.3	4.2Max.	6.3 $\pm$ 0.3	2.00 $\pm$ 0.3	4.0 $\pm$ 0.3	3.8Typ.	2.2Typ.	7.5Typ.

Dimensions: mm

## Materials



No	Components	Material
1	Ferrite Core	Ni-Zn Ferrite
2	Wire	Polyurethane System enameled copper wire
3	Magnetic Glue	Epoxy resin and magnetic powder
4	Plating Electrodes	Plating: Ag/Ni/Sn
5	Outer Electrodes	Top surface solder coating: Sn96.5%/Ag3.0%/Cu0.5%

# Wire Wound Magnetically Shielded SMD Power Inductor

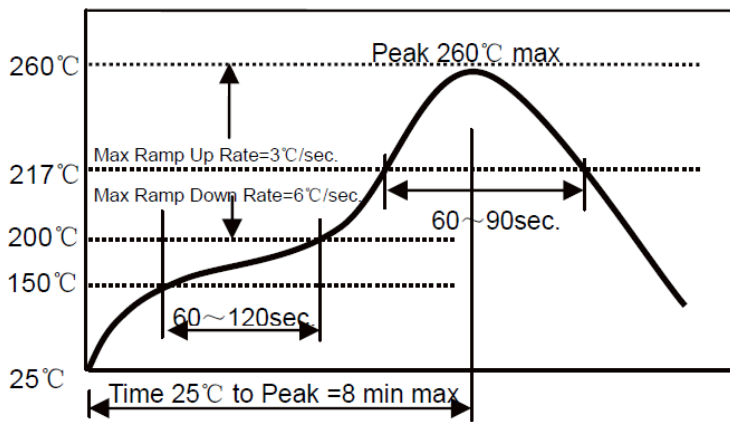


8.0 x 8.0 x 4.2mm

ASPI-8040S

**Pb** RoHS/RoHS II compliant

## REFLOW PROFILE

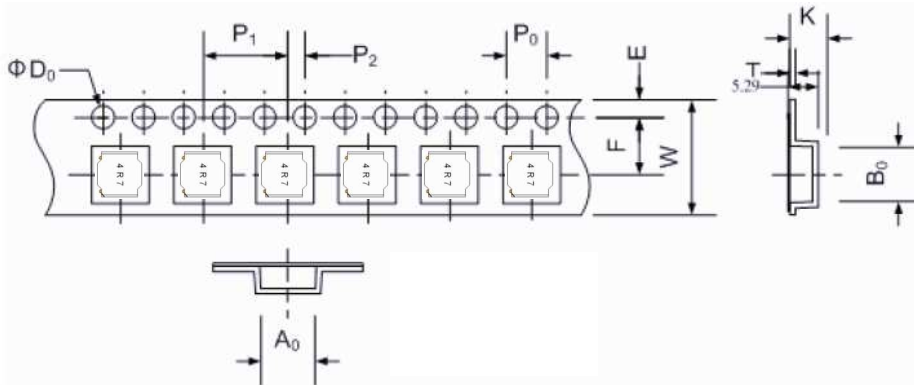


- △ 1~2 °C/sec. Ramp
- △ Pre-heating: 150~190°C/90±30 sec.
- △ Time above 240°C: 20~40sec
- △ Peak temperature: 260°C Max./5sec;
- △ Solder paste: Sn/3.0Ag/0.5Cu
- △ Max.2 times for Re-flowing

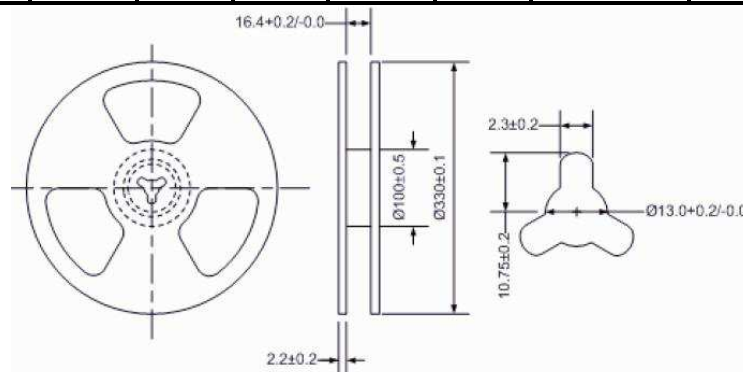
## TAPE & REEL:

### Packing

T: 1,000pcs / reel



A0	B0	W	E	F	P0	P1	P2	D0	T	K
8.35±0.1	8.35±0.1	16.0±0.3	1.75±0.1	7.5±0.1	4.0±0.1	12.0±0.1	2.0±0.1	1.5+0.1/-0.0	0.4±0.03	4.4±0.1



### Storage Conditions

- a. To maintain the solderability of terminal electrodes and to keep the packing material in good condition, temperature and humidity in the storage area should be controlled.
- b. Recommended conditions: -10°C ~ 40 °C, 70% RH (Max.)
- c. Even under ideal storage conditions, solderability of products electrodes may decrease as time passes. For this reason, product should be used with one year from the time of delivery.
- d. In case of storage over 6 months, solderability shall be checked before actual usage.

**Dimension: mm**

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS  
ISO9001:2008  
CERTIFIED



Visit [www.abracon.com](http://www.abracon.com) for Terms & Conditions of Sale **Revised: 02.03.14**  
30332 Esperanza, Rancho Santa Margarita, California 92688  
tel 949-546-8000 | fax 949-546-8001 | [www.abracon.com](http://www.abracon.com)