



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!



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Wire Wound Magnetically Shielded SMD Power Inductor



4.0 x 4.0 x 3.0 mm

ASPI-4030S



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:

Abracon P/N:	ASPI-4030S Series
Operating Temperature :	-40°C to +125°C
Storage Temperature :	-10°C to +40°C and 70% R.H. max

Part Number	Inductance	L Tolerance	DC Resistance (±30%)	Saturation Current	Temperature Rise Current	Self resonant frequency	Inductance Code Marking
Units	μH	—	Ω	A Max	A Max	MHz Min	
Symbol	L	N, M	DCR	Isat	Irms	SRF	
ASPI-4030S-R91	0.91	N	0.013	6.25	4.15	100	R91
ASPI-4030S-1R0	1.0	N	0.014	5.26	4.15	70	1R0
ASPI-4030S-1R2	1.2	N	0.015	5.80	3.82	80	1R2
ASPI-4030S-1R5	1.5	N	0.020	4.84	3.34	62	1R5
ASPI-4030S-1R8	1.8	N	0.025	5.40	3.20	60	1R8
ASPI-4030S-2R2	2.2	N	0.030	4.90	2.95	52	2R2
ASPI-4030S-3R3	3.3	M	0.040	3.30	2.40	38	3R3
ASPI-4030S-4R3	4.3	M	0.055	2.95	2.10	37	4R3
ASPI-4030S-4R7	4.7	M	0.060	2.90	2.00	31	4R7
ASPI-4030S-5R6	5.6	M	0.065	2.60	1.95	30	5R6
ASPI-4030S-6R8	6.8	M	0.090	2.75	1.60	24	6R8
ASPI-4030S-7R5	7.5	M	0.085	2.20	1.65	26	7R5
ASPI-4030S-8R2	8.2	M	0.090	2.10	1.60	26	8R2
ASPI-4030S-100	10	M	0.100	1.95	1.50	21	100
ASPI-4030S-120	12	M	0.135	1.70	1.30	18	120
ASPI-4030S-150	15	M	0.190	1.65	1.11	16	150
ASPI-4030S-180	18	M	0.200	1.40	1.10	10	180
ASPI-4030S-220	22	M	0.225	1.30	1.00	10	220
ASPI-4030S-330	33	M	0.330	1.10	0.84	10	330
ASPI-4030S-360	36	M	0.335	1.05	0.83	9.8	360
ASPI-4030S-390	39	M	0.435	1.03	0.73	10	390
ASPI-4030S-470	47	M	0.445	0.95	0.72	8.4	470
ASPI-4030S-510	51	M	0.470	0.90	0.70	8.4	510
ASPI-4030S-560	56	M	0.555	0.85	0.65	8.4	560
ASPI-4030S-620	62	M	0.585	0.80	0.63	7.0	620
ASPI-4030S-680	68	M	0.868	0.72	0.52	7.0	680
ASPI-4030S-750	75	M	1.020	0.70	0.48	6.3	750
ASPI-4030S-820	82	M	1.060	0.66	0.47	5.6	820
ASPI-4030S-910	91	M	1.100	0.65	0.46	5.6	910
ASPI-4030S-101	100	M	1.150	0.60	0.45	5.6	101
ASPI-4030S-121	120	M	1.350	0.55	0.42	5.4	121

Test Conditions:

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

Inductance (L): WK3260B LCR meter or equivalent, 100kHz, 1Vrms

Direct Current Resistance (DCR): HIOKI 3540 or equivalent

Saturation Current (Isat): WK3260B LCR meter or equivalent

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

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

Irms: Based on temperature rise (ΔT : 40°C TYP.)

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Revised: 03.09.13

Wire Wound Magnetically Shielded SMD Power Inductor

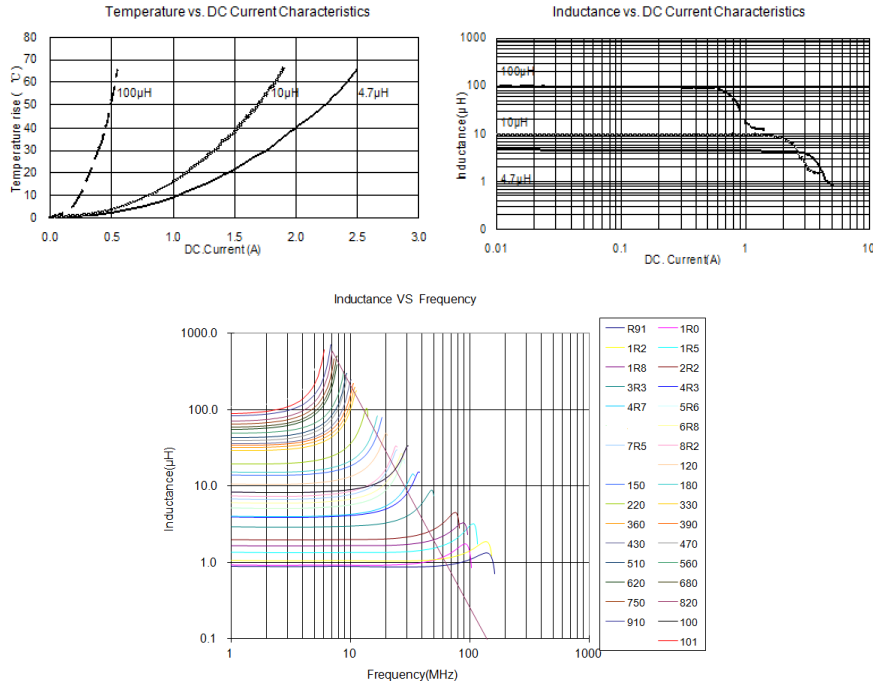


4.0 x 4.0 x 3.0 mm

ASPI-4030S

Pb | RoHS/RoHS II Compliant

ELECTRICAL CHARACTERISTICS CURVES



PART IDENTIFICATION:

ASPI-4030S - [] - []

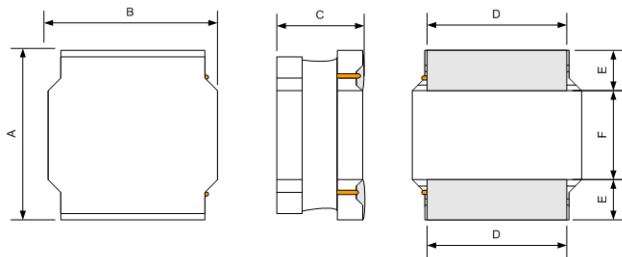
Inductance Code
Please refer to the table above

Tolerance
M: ±20% *
N: ±30% *

Packaging
T: Tape and Reel
(2kpcs / reel)

*M for 3.3µH~120µH
*N for 0.91µH~2.2µH

OUTLINE DIMENSIONS:



Recommended Land Pattern

A	B	C Max.	D	E	F	a Typ.	b Typ.	c Typ.
4.0±0.2	4.0±0.2	3.0	3.3±0.2	0.95±0.2	2.1±0.2	1.9	1.1	3.4

Dimensions: mm

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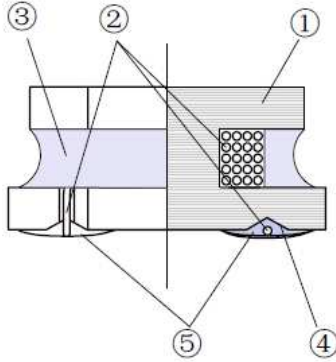


4.0 x 4.0 x 3.0 mm

ASPI-4030S

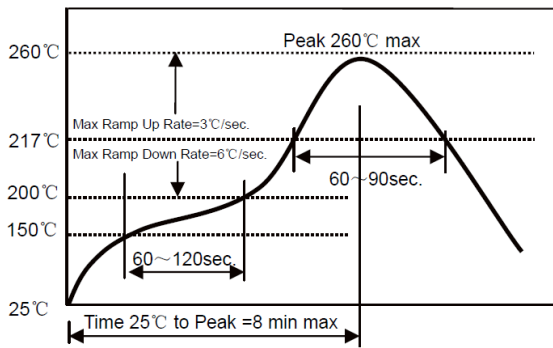
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Materials



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%/Cu0.5%

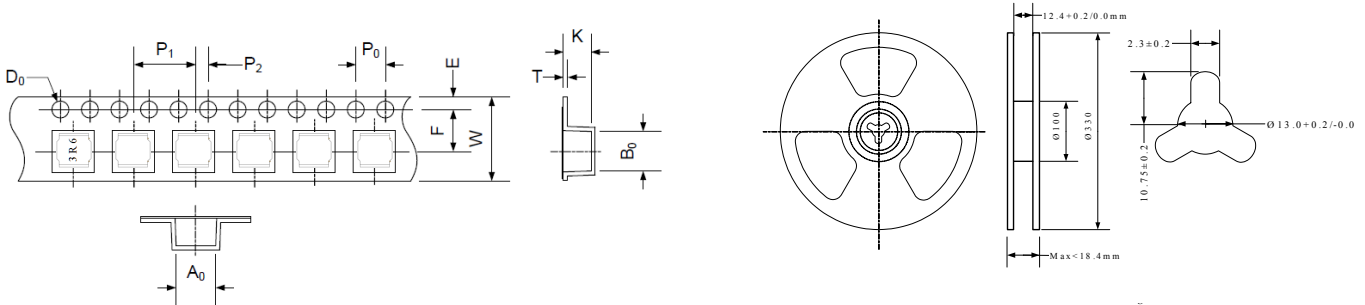
REFLOW PROFILE:



- Δ Preheat condition: 150 ~200°C /60~120sec.
- Δ Allowed time above 217°C: 60~90sec.
- Δ Max temp: 260°C
- Δ Max time at max temp: 5sec.
- Δ Solder paste: Sn/3.0Ag/0.5Cu
- Δ Allowed Reflow time: 2x max

TAPE & REEL:

T: 2,000pcs / reel



A0	B0	W	E	F	P0	P1	P2	D0	T	K
4.3±0.1	4.3±0.1	12.0±0.3	1.75±0.1	5.5±0.1	4.0±0.1	8.0±0.1	2.0±0.1	1.5+0.1/-0.0	0.4±0.03	3.2±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 12 months, solderability shall be checked before actual usage.

Dimensions: mm

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