



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

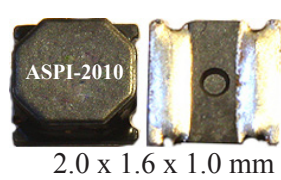
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# Wire Wound Magnetically Shielded SMD Power Inductor



ASPI-2010 series



RoHS/RoHS II Compliant

## FEATURES:

- Small size and low profile: 1.0mm
- Small DCR and high rated current
- High reliability to mechanical stress
- Magnetically shielded by magnetic powder molding
- Suitable for RoHS reflow profile

## APPLICATIONS:

- Mobile phones
- MP3 & 4 and other portable communication equipment
- Digital cameras.

## ELECTRICAL SPECIFICATIONS:

Abracon P/N:	ASPI-2010 Series
Operating Temperature & Humidity :	-40°C ~ +125°C (including self heating)
Storage Temperature & Humidity:	-10°C ~ +40°C and 70% R.H. max.

Part Number ASPI-2010- Inductance Code	Inductance	L Tolerance	DC Resistance Typ	DC Resistance Max	Saturation Current Typ	Saturation Current Max	Temperature Rise Current Typ	Temperature Rise Current Max
Units	μH	—	Ω Typ	Ω Max	A Typ	A Max	A Typ	A Max
Symbol	L	M	DCR		Isat		Irms	
ASPI-2010-R47	0.47	M	0.049	0.059	2.30	2.85	2.35	2.60
ASPI-2010-R68	0.68	M	0.063	0.076	1.95	2.45	2.05	2.25
ASPI-2010-1R0	1.0	M	0.095	0.114	1.65	1.85	1.45	1.60
ASPI-2010-1R5	1.5	M	0.145	0.174	1.35	1.65	1.25	1.40
ASPI-2010-2R2	2.2	M	0.220	0.264	1.20	1.45	1.10	1.20
ASPI-2010-3R3	3.3	M	0.279	0.335	0.90	1.05	0.88	0.98
ASPI-2010-4R7	4.7	M	0.399	0.479	0.70	0.85	0.74	0.82
ASPI-2010-6R8	6.8	M	0.680	0.816	0.60	0.70	0.52	0.58

### Test Conditions:

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

Inductance (L): WK3260B LCR meter or equivalent, 1MHz

Direct Current Resistance (DCR): HIOKI 3540 or equivalent

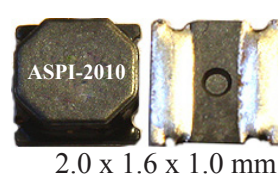
Saturation Current (Isat): WK3260B LCR meter or equivalent

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

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

Irms: Based on temperature rise ( $\Delta T : 40^\circ\text{C TYP.}$ )

# Wire Wound Magnetically Shielded SMD Power Inductor

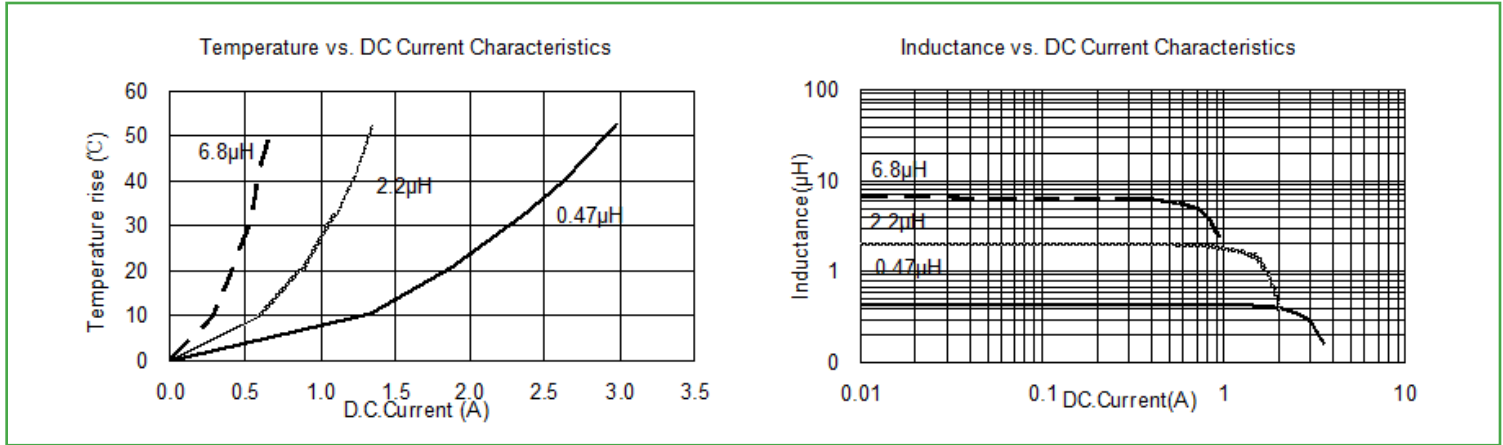


ASPI-2010 series

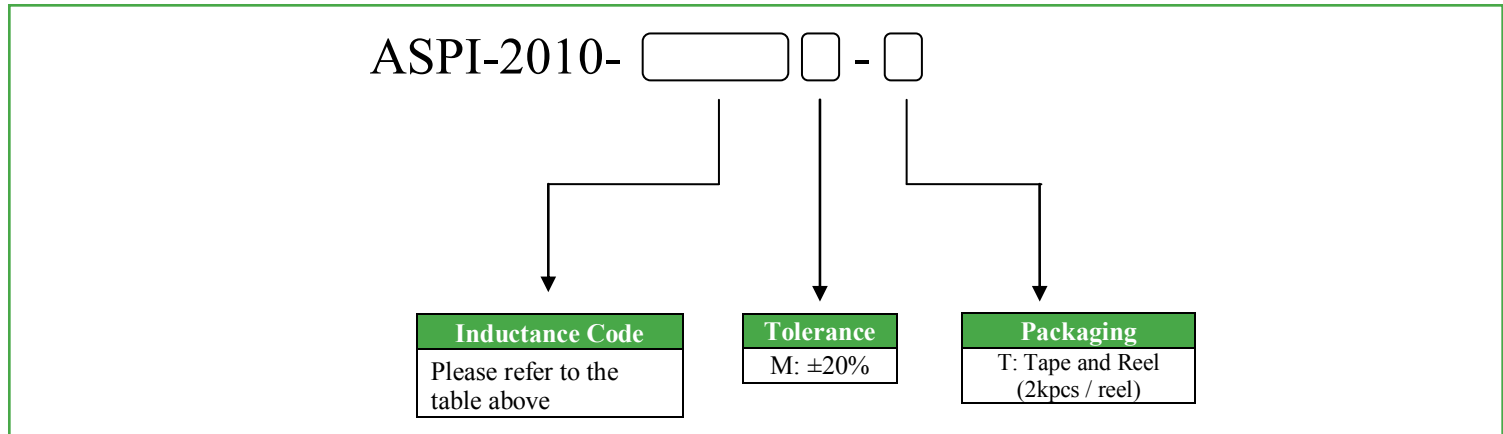


RoHS/RoHS II Compliant

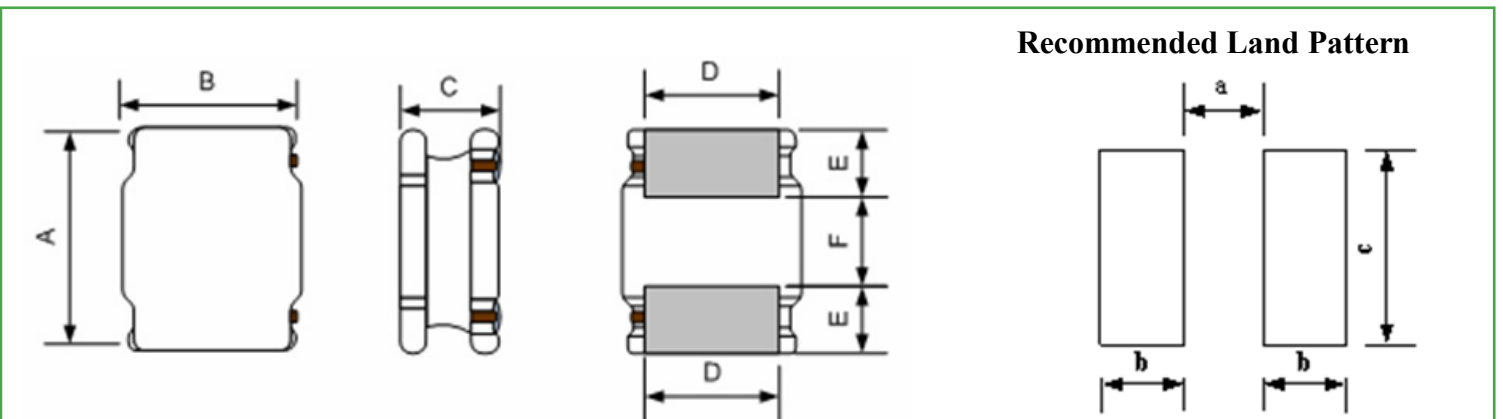
## ELECTRICAL CHARACTERISTICS CURVES



## PART IDENTIFICATION:



## OUTLINE DIMENSION:



A	B	C Max.	D	E	F	a Typ.	b Typ.	c Typ.
2.0±0.2	1.6±0.2	1.0	1.2±0.2	0.60±0.2	0.80±0.2	0.70	0.70	1.70

Dimensions: mm

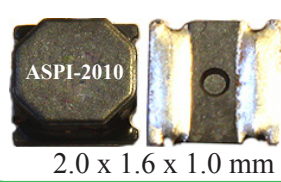


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Revised: 02.20.13



# Wire Wound Magnetically Shielded SMD Power Inductor

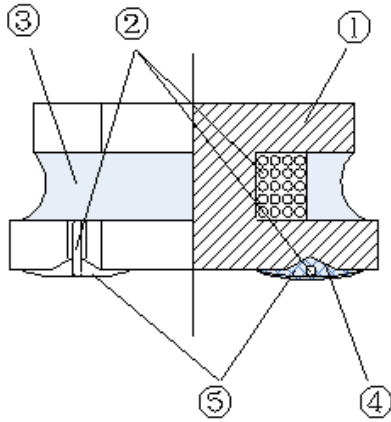


ASPI-2010 series



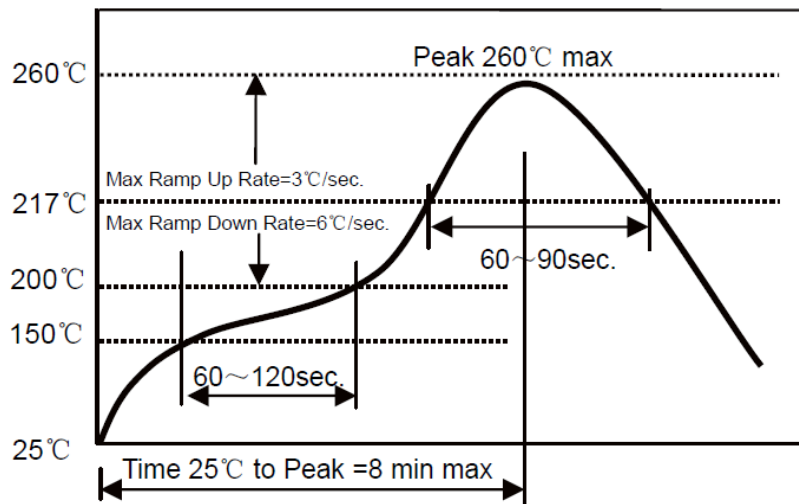
RoHS/RoHS II Compliant

## MATERIAL:



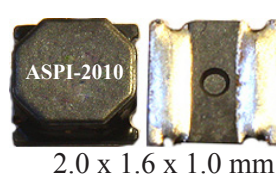
No	Components	Material
1	Ferrite Core	Ni-Zn Ferrite
2	Wire	Polyurethane System enameled copper wire
3	Magnetic Glue	Epoxy resin and magnetic powder
4	Plating Electrodes	Plating: Ag/Ni/Sn
5	Outer Electrodes	Top surface solder coating: Sn96.5%/Ag3%/Cu0.5%

## REFLOW PROFILE:



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

# Wire Wound Magnetically Shielded SMD Power Inductor



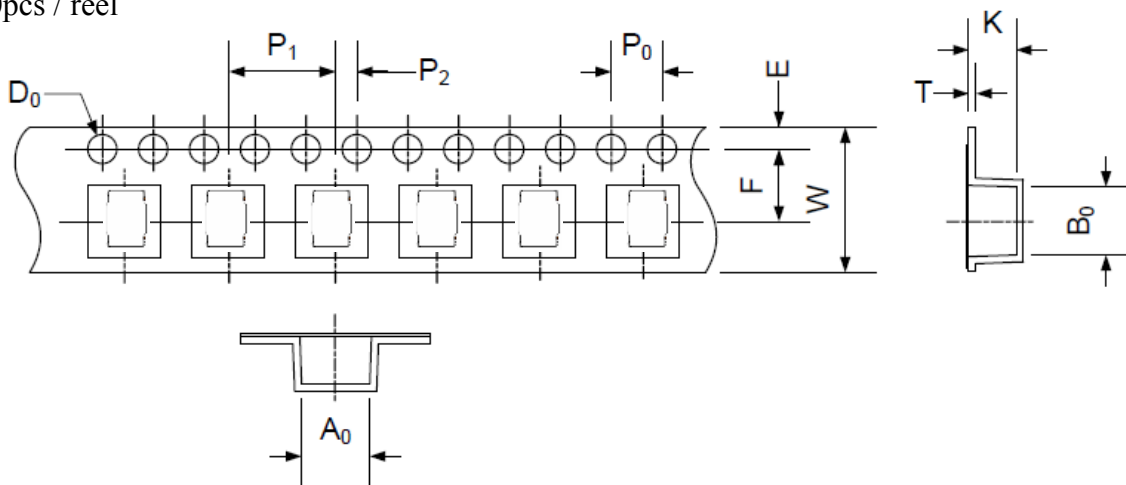
ASPI-2010 series



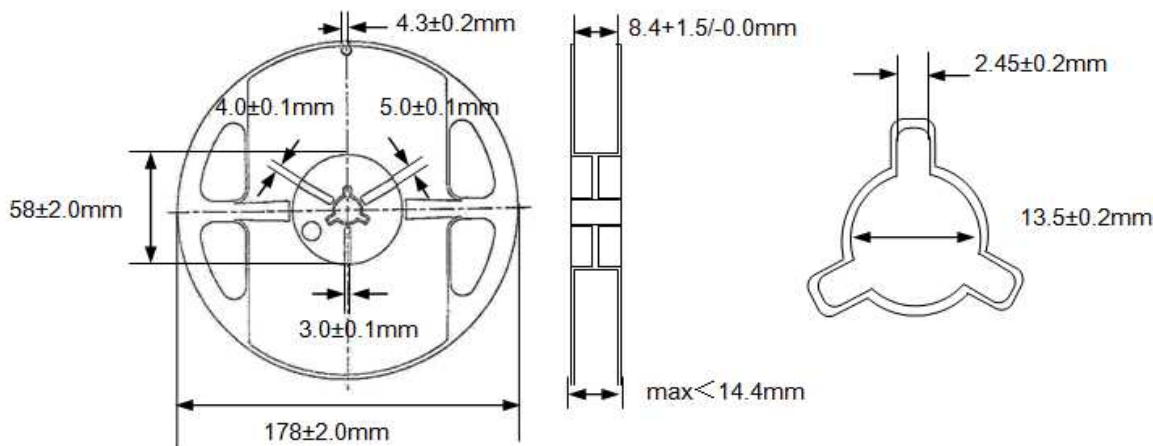
RoHS/RoHS II Compliant

## TAPE & REEL:

T: 2,000pcs / reel



Ao	Bo	W	E	F	Po	P1	P2	Do	T	K
1.90±0.05	2.20±0.05	8.0±0.1	1.75±0.1	3.5±0.05	4.0±0.1	4.0±0.1	2.0±0.05	1.5+0.1/-0.0	0.25±0.02	1.20±0.05



### Storage Conditions

- 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.
- Recommended conditions: -10°C ~ +40 °C, 70% RH (Max.)
- Even under ideal storage conditions, solderability of products electrodes may decrease as time passes. For this reason, product should be used within one year from the time of delivery.
- 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.

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