

# Low Profile Shielded SMD Chip Power Inductor

ASPI-2510 series



RoHS  
Compliant



2.5 x 2.0 x 1.0mm

## ► 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-2510 Series			
Operating Temperature & Humidity :	-25°C to +120°C (Including self generated heat)			
Storage Temperature & Humidity:	-10°C to +40°C, 30% to 70% RH			

Part Number	Inductance	DCR	Saturation Current	Temperature Rise Current
Units	µH	$m\Omega \pm 20\%$	A	A
Symbol	L	DCR	Isat*	Irms*
ASPI-2510-R47	0.47	38	2.50	2.65
ASPI-2510-R68	0.68	52	2.05	2.20
ASPI-2510-1R0	1.0	70	1.75	1.90
ASPI-2510-1R5	1.5	107	1.45	1.50
ASPI-2510-2R2	2.2	158	1.20	1.20
ASPI-2510-3R3	3.3	229	0.94	1.00
ASPI-2510-4R7	4.7	332	0.80	0.82
ASPI-2510-6R8	6.8	443	0.68	0.71
ASPI-2510-100	10.0	712	0.56	0.55

### Test Conditions

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in DU-5011 milli ohm meter.(or equivalent).
3. Isat : Based on inductance change ( $\Delta L/L_0 \leq -30\%$ )
4. Irms : Based on temperature rise ( $\Delta T : 40^\circ\text{C TYP.}$ )
5. Test Freq: 100KHz, 1Vrms

## ► OPTIONS AND PART IDENTIFICATION

ASPI-2510-  - 

**Inductance Code**  
Please refer to the  
Electrical Spec Table

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

**Packaging**  
T2: Tape and Reel (2kpcs / reel)

\*N for L = 0.47~1.5µH

\*M for L = 2.2 ~ 10µH

# Low Profile Shielded SMD Chip Power Inductor

ASPI-2510 series



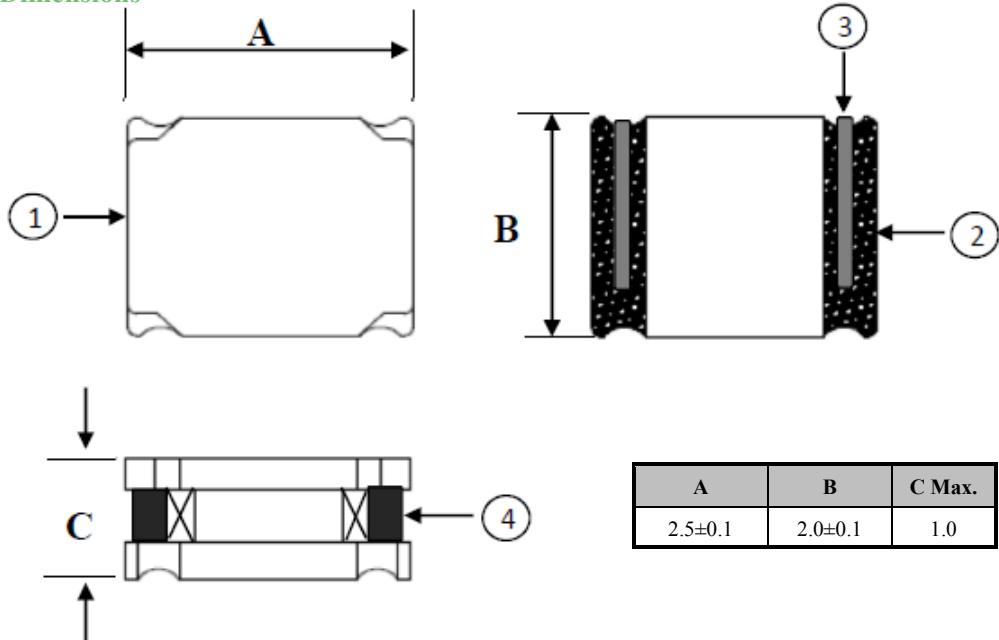
RoHS  
Compliant



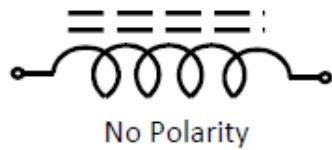
2.5 x 2.0 x 1.0mm

## OUTLINE DRAWING:

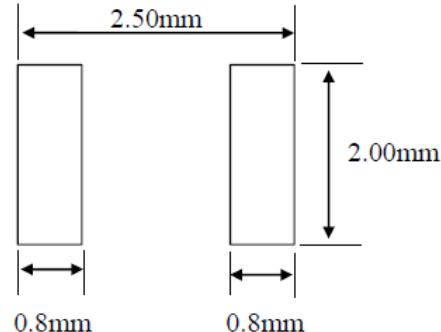
### Mechanical Dimensions



### Circuit Schematic



### Recommended Land Pattern



### Materials

No	Part Name	Material
1	Ferrite core	Ni-Zn Ferrite
2	Terminals	Ag/Ni/Sn
3	Coil	Cu/P180 Grd 1
4	Adhesive	Silicon Base Resin
	Magnetic Powder	Ni-Zn Ferrite

Dimension: mm

# Low Profile Shielded SMD Chip Power Inductor



## ASPI-2510 series

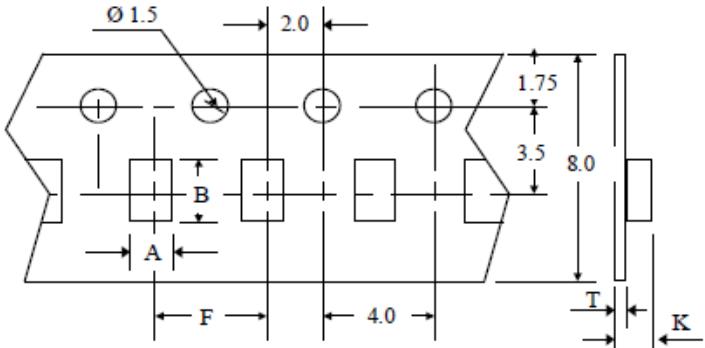


**RoHS  
Compliant**

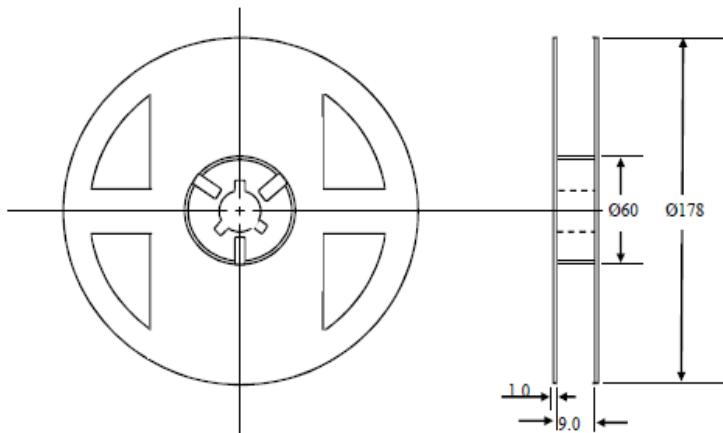
2.5 x 2.0 x 1.0mm

## ► TAPE & REEL:

T: 2,000pcs / reel

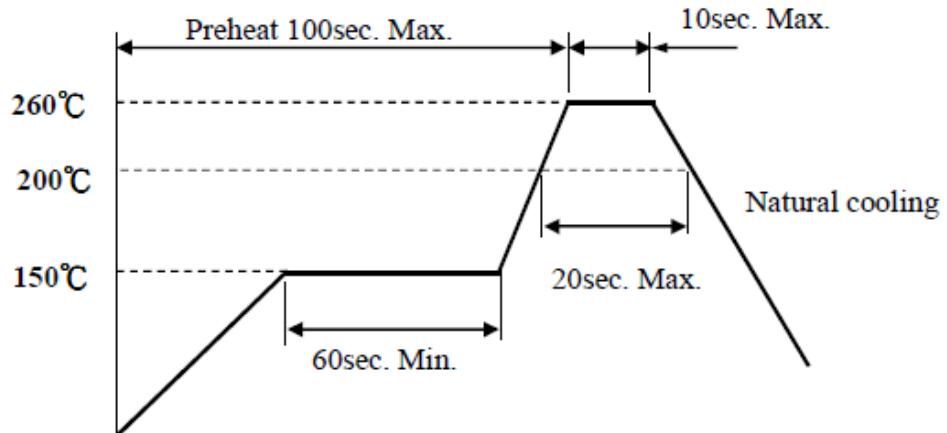


A	2.27
B	2.74
K	1.40
F	4
T	0.25

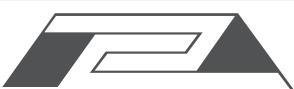


**Dimension: mm**

## ► REFLOW PROFILE:



**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 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)