

# SMD SHIELDED POWER INDUCTOR

## ASPI-0704S



RoHS  
Compliant



7.3 x 7.3 x 4.5mm

### FEATURES:

- Superior to be high saturation for surface mounting
- Low resistance to keep power loss minimum
- Magnetic shielded for low radiation
- Compact size
- Ferrite bobbin core

### APPLICATIONS:

- Desktop, notebook, servers
- Network hubs, bridges, routers
- XDSL, PBX base stations
- GPS system
- Digital TV, DVD, Modem, setup box
- Battery charger
- Electronic game devices

### STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N:	ASPI-0704S-xxx Series
Operating temperature:	-40°C to +125°C (including self-generated heat)
Storage temperature:	-40°C to +125°C

Part Number	Inductance	Test Frequency	DC Resistance	IDC
	( $\mu$ H)	(kHz)	( $\Omega$ )	(A)
ASPI-0704S-2R2M	2.2	100	0.028	5.00
ASPI-0704S-100M	10	100	0.049	1.84
ASPI-0704S-120M	12	100	0.058	1.71
ASPI-0704S-150M	15	100	0.081	1.47
ASPI-0704S-180M	18	100	0.091	1.31
ASPI-0704S-220M	22	100	0.110	1.23
ASPI-0704S-270M	27	100	0.150	1.12
ASPI-0704S-330M	33	100	0.170	0.96
ASPI-0704S-390M	39	100	0.230	0.91
ASPI-0704S-470M	47	100	0.260	0.88
ASPI-0704S-560M	56	100	0.350	0.75
ASPI-0704S-680M	68	100	0.380	0.69
ASPI-0704S-820M	82	100	0.430	0.61
ASPI-0704S-101M	100	100	0.610	0.60
ASPI-0704S-121M	120	100	0.660	0.52
ASPI-0704S-151M	150	100	0.880	0.46
ASPI-0704S-181M	180	100	0.980	0.42
ASPI-0704S-221M	220	100	1.170	0.36
ASPI-0704S-271M	270	100	1.640	0.34
ASPI-0704S-331M	330	100	1.860	0.32
ASPI-0704S-391M	390	100	2.850	0.29
ASPI-0704S-471M	470	100	3.010	0.26
ASPI-0704S-561M	560	100	3.620	0.23
ASPI-0704S-681M	680	100	4.630	0.22
ASPI-0704S-821M	820	100	5.200	0.20
ASPI-0704S-102M	1000	100	6.000	0.18

### Test Conditions

1. Inductance Decrease Current: The current at inductance  $\neq$  25% drop of initial value
2. Inductance: AGILENT 4294A Precision Impedance Analyzer
3. ZENTECH 3302 Automatic Components Analyzer
4. ZENTECH 502AC Resistance Meter
5. ZENTECH 1320 BIAS CURRENT

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7.3 x 7.3 x 4.5mm

## PART NUMBER IDENTIFICATION:

(Left Blank if Standard)

ASPI-0704S-  -

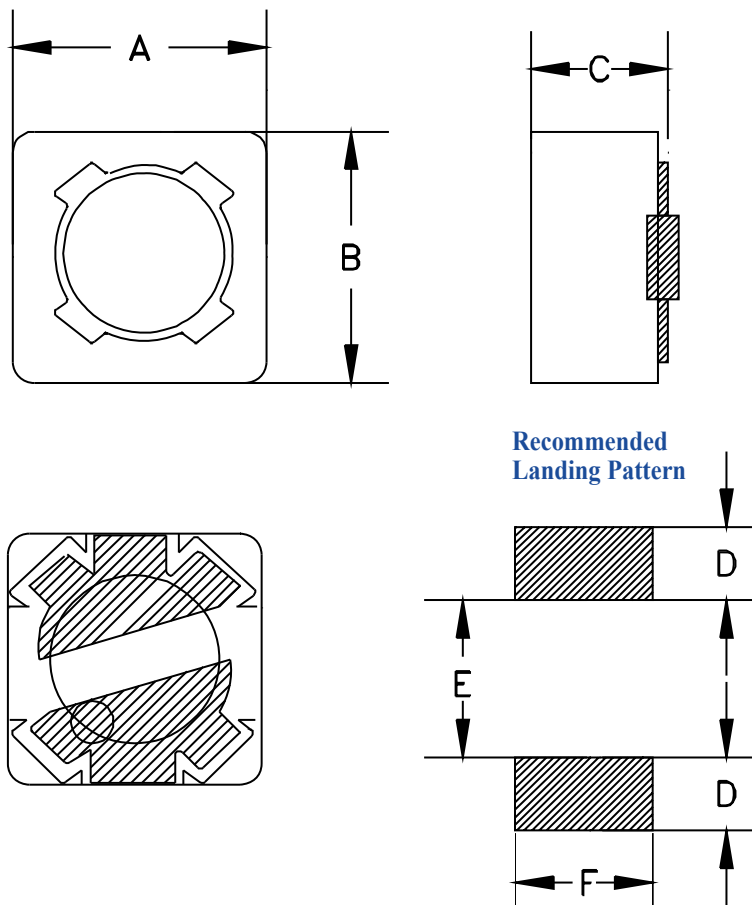
### Inductance Code

Please refer to the table above

### Packaging

T: Tape and Reel  
(1kpcs / reel)

## OUTLINE DRAWING:



Dimensions: Inches (mm)

Part#	A	B	C	D	E	F
ASPI-0704S-xxx	0.287±0.008 (7.3±0.2)	0.287±0.008 (7.3±0.2)	0.177 max (4.5 max.)	0.063 (1.60)	0.189 (4.80)	0.09 (2.20)

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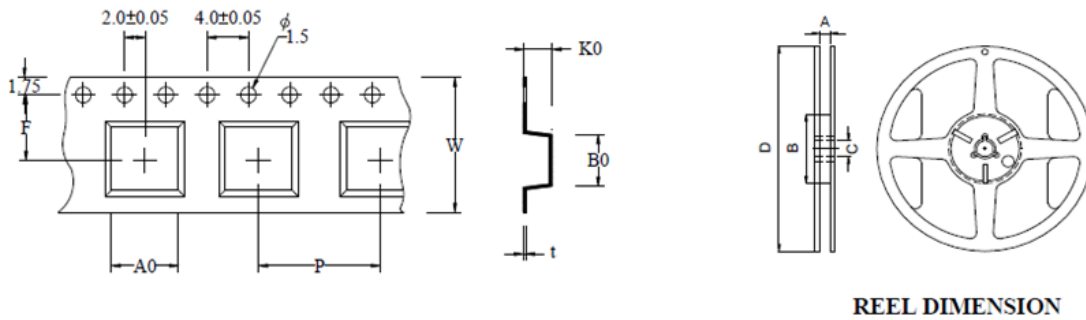
7.3 x 7.3 x 4.5mm

## TAPE AND REEL:

Tape and reel (1,000pcs/reel)

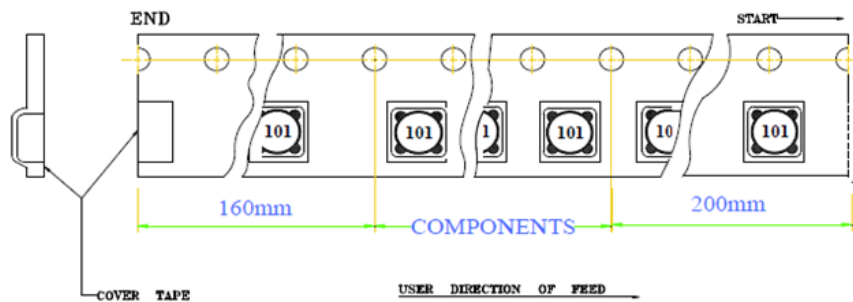
DIMENSIONS / SIZE (mm)			PATTERN / SIZE (mm)		
A	B	C	D	E	F
7.3 ± 0.2	7.3 ± 0.2	4.50 Max.	1.6	4.8	2.2

### • TAPE DIMENSION & REEL DIMENSION



TYPE	TAPE / SIZE (mm)							REEL 13"×16mm			
	Ao	Bo	Ko	P	F	W	t	A	B	C	D
0704	7.7 ± 0.1	7.7 ± 0.1	4.7 ± 0.1	12.0 ± 0.1	7.5 ± 0.1	16 ± 0.3	0.35 ± 0.05	16.5 ± 0.2	100 ± 0.5	13.2 ± 0.3	330 ± 1.0

### • PACKAGING QUANTITY



Dimension: mm

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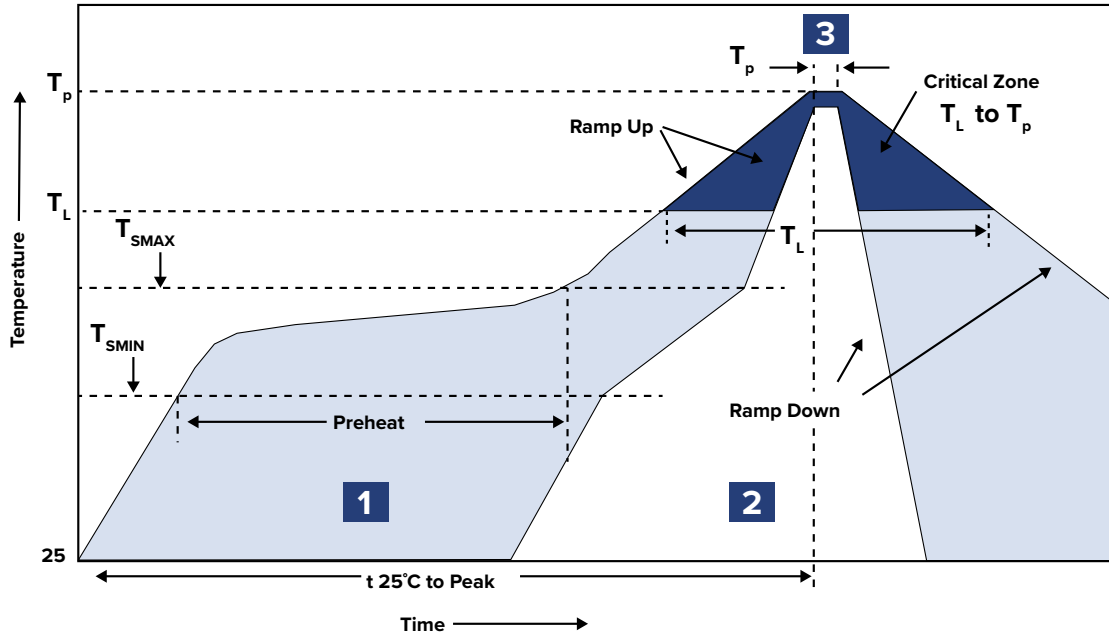


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## REFLOW PROFILE:



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMAX}$ 150°C ~ 180°C	60 ~ 120 sec.
2	Reflow	$T_L$ 230°C	30 ~ 40 sec.
3	Peak heat	$T_P$ 255°C ~ 265°C	10 sec. MAX

**ATTENTION:** Abracon LLC'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-dependent 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 LLC is required. Please contact Abracon LLC for more information.