

# LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR

ASPI-0615FS

 RoHS/RoHS II Compliant



6.0 x 6.0 x 2.0mm

## FEATURES:

- Small size and low profile: 2.0mm
- Small DCR and high rated current
- High reliability to mechanical strength
- Magnetically shielded by magnetic powder molding
- Suitable for RoHS reflow profile

## APPLICATIONS:

- DC/DC converter for LCD display of notebook PC
- Portable communication equipment
- Digital cameras

## ELECTRICAL SPECIFICATIONS:

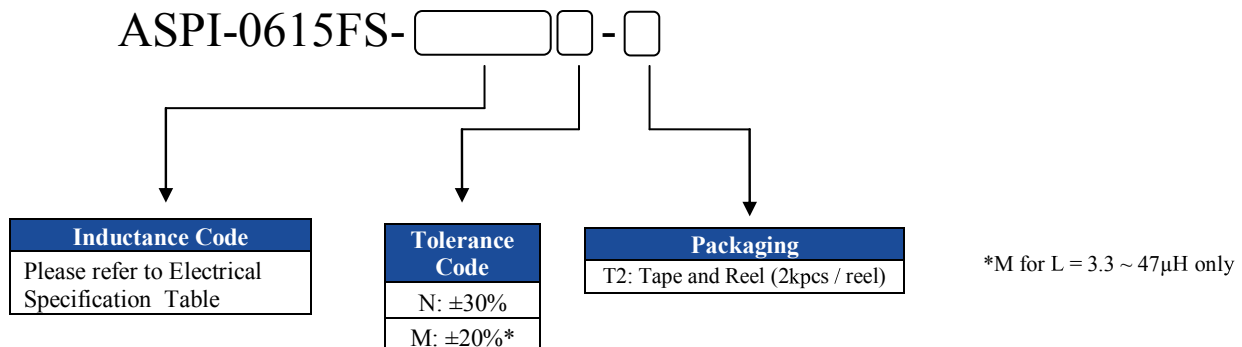
Abracon P/N:	ASPI-0615FS Series
Operating Temperature & Humidity :	-40°C to +125°C (Including self generated heat)
Storage Temperature & Humidity:	-40°C to +125°C

Part Number ASPI-0615FS- Inductance Code	Inductance	Inductance Tolerance	DCR	DCR Tolerance	Saturation Current	Temperature Rise Current
Units	μH	%	mΩ	%	A	A
Symbol	L	M, N	DCR		Isat	Irms
ASPI-0615FS-R50	0.5	N	9	±30%	7.00	5.20
ASPI-0615FS-R80	0.8	N	12		6.00	4.10
ASPI-0615FS-1R5	1.5	N	17		4.00	3.60
ASPI-0615FS-2R2	2.2	N	24		3.50	2.90
ASPI-0615FS-3R3	3.3	M, N	30		2.80	2.80
ASPI-0615FS-4R7	4.7	M, N	43	±20%	2.40	2.20
ASPI-0615FS-5R6	5.6	M, N	55		2.20	2.00
ASPI-0615FS-6R8	6.8	M, N	60		2.00	1.80
ASPI-0615FS-100	10	M, N	90		1.90	1.50
ASPI-0615FS-150	15	M, N	120		1.30	1.20
ASPI-0615FS-220	22	M, N	170		1.10	1.00
ASPI-0615FS-330	33	M, N	310		0.90	0.90
ASPI-0615FS-470	47	M, N	370	0.80	0.80	

### 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 ( $\Delta L/L_o : \leq -30\%$ )
4. Irms : Based on temperature rise ( $\Delta T : 40^\circ\text{C TYP.}$  )
5. Test Freq: 100KHz, 1Vrms

## OPTIONS AND PART IDENTIFICATION

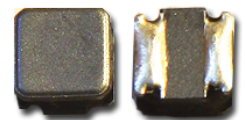


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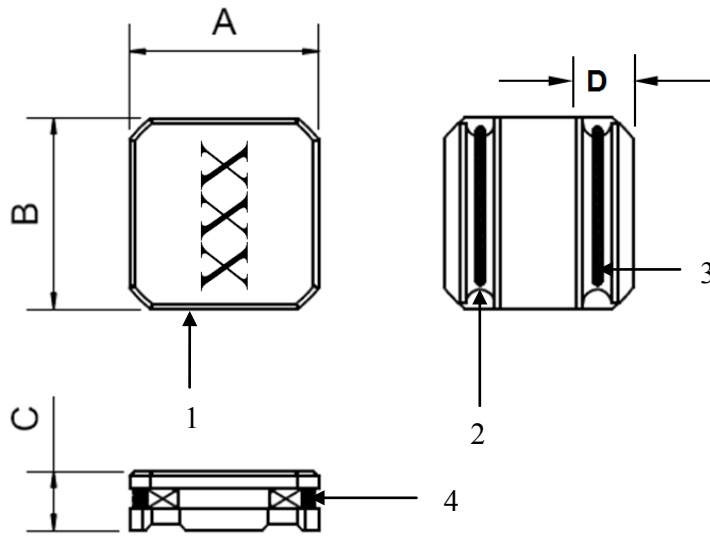


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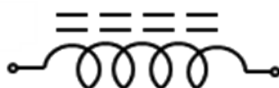
6.0 x 6.0 x 2.0mm

## OUTLINE DRAWING:



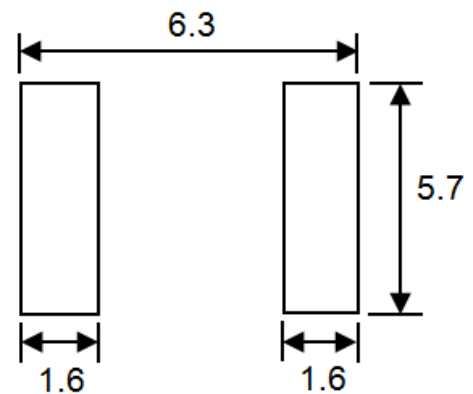
A	B	C	D Typ.
6.0±0.2	6.0±0.2	2.0±0.2	1.50

### Circuit Schematic



No Polarity

### Recommended Land Pattern



Dimension: mm

### Material

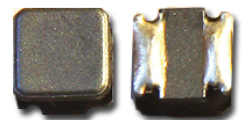
No	Part Name	Material
1	Ferrite core	Ni-Zn Ferrite
2	Terminals	Ag/Ni/Sn
3	Coil	Cu/P180 Grd 1
4	Adhesive	Silicon Base Resin
	Magnetic Powder	Ni-Zn Ferrite

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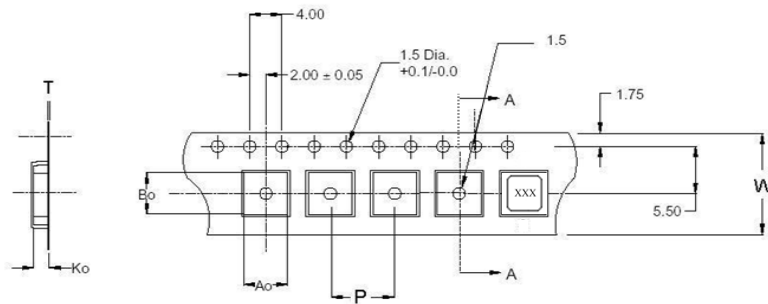
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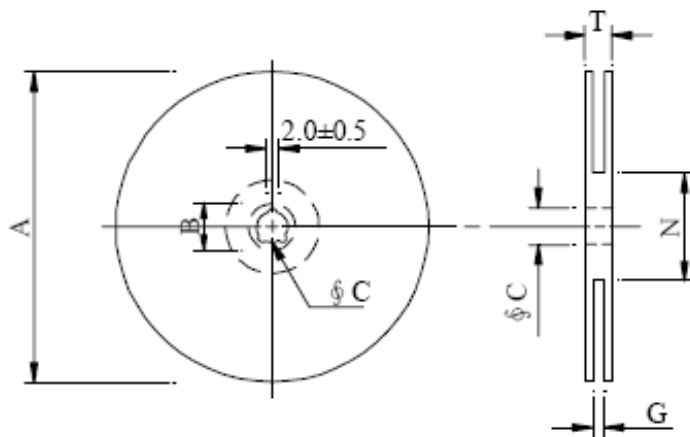
6.0 x 6.0 x 2.0mm

## TAPE & REEL:

T2: 2,000pcs / reel



<b>Ao</b>	<b>6.35</b>
<b>Bo</b>	<b>6.20</b>
<b>Ko</b>	<b>2.40</b>
<b>W</b>	<b>16.00</b>
<b>P</b>	<b>12.00</b>
<b>T</b>	<b>0.40</b>



<b>A</b>	<b>330</b>
<b>B</b>	<b>21.0±0.8</b>
<b>C</b>	<b>13.5±0.5</b>
<b>G</b>	<b>16.6</b>
<b>N</b>	<b>99.5</b>
<b>T</b>	<b>21</b>

Dimension: mm

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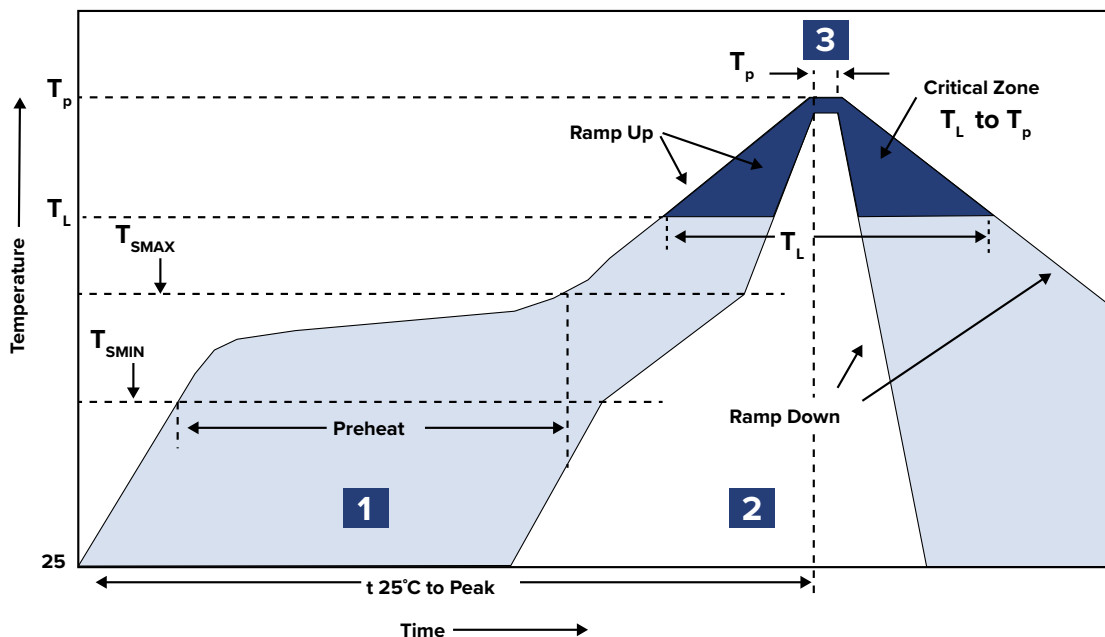


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## REFLOW PROFILE:



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMAX}$ 150°C	60 ~ 100 sec.
2	Reflow	$T_L$ 200°C	20 sec. MAX
3	Peak heat	$T_P$ 260°C	10 sec. MAX

Dimension: mm

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