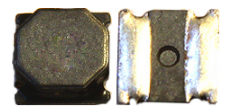


LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR

ASPI-0418FS



RoHS
Compliant



4.0 x 4.0 x 1.8mm/
4.0 x 4.0 x 1.88mm

FEATURES:

- Small size and low profile: 1.88mm max.
- Small DCR and high rated current
- High reliability to mechanical strength
- 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:

Abrakon P/N:	ASPI-0418FS Series
Operating Temperature & Humidity :	-40°C to +125°C (Including self generated heat)
Storage Temperature & Humidity:	-40°C to +125°C

Part Number	Inductance	Inductance Tolerance	DCR	DCR Tolerance	Saturation Current	Temperature Rise Current
Units	μH	%	mΩ	%	A	A
Symbol	L	M, N	DCR		Isat	Irms
ASPI-0418FS-R82	0.82	N	16	±30%	4.20	4.00
ASPI-0418FS-1R0	1.0	N	19		4.70	3.70
ASPI-0418FS-1R2	1.2	N	21		4.00	3.50
ASPI-0418FS-1R5	1.5	N	27		3.50	3.10
ASPI-0418FS-2R2	2.2	M	37		3.00	2.90
ASPI-0418FS-2R7	2.7	M	43	±20%	2.40	2.30
ASPI-0418FS-3R3	3.3	M	55		2.30	2.20
ASPI-0418FS-4R7	4.7	M	70		2.00	1.90
ASPI-0418FS-6R8	6.8	M	98		1.60	1.50
ASPI-0418FS-100	10	M	150		1.40	1.30
ASPI-0418FS-150	15	M	220		1.10	1.00
ASPI-0418FS-220	22	M	290		0.95	0.90
ASPI-0418FS-330	33	M	460		0.75	0.70
ASPI-0418FS-470	47	M	650		0.62	0.60
ASPI-0418FS-680	68	M	940		0.50	0.50
ASPI-0418FS-101	100	M	1330		0.45	0.42
ASPI-0418FS-151	150	M	2000		0.35	0.32
ASPI-0418FS-221	220	M	2960		0.30	0.28

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-0418FS- -

Inductance Code

Please refer to the
Electrical Spec Table

Tolerance

N: ±30%*
M: ±20%*

Packaging

T3: Tape and Reel (3kpcs / reel)

*N for L = 0.82 ~ 1.5μH

*M for L = 2.2 ~ 220μH

LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR

ASPI-0418FS

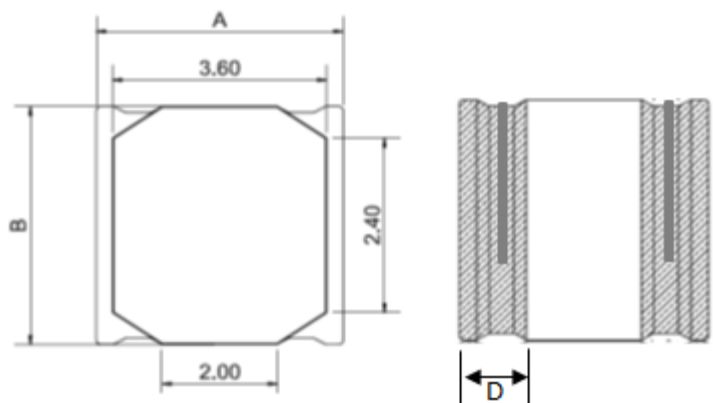


RoHS
Compliant



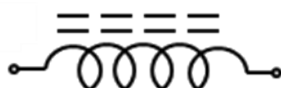
4.0 x 4.0 x 1.8mm/
4.0 x 4.0 x 1.88mm

OUTLINE DRAWING:



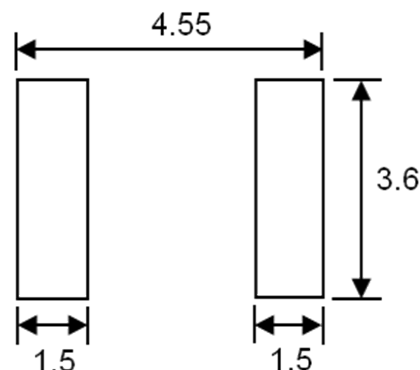
A	B	C Max.	D
4.0±0.2	4.0±0.2	1.88 for R82-2R7 1.80 for 3R3-221	1.3

Circuit Schematic



No Polarity

Recommended Land Pattern



Dimension: mm

Pb

▷ TAPE & REEL:

Technical drawing of a mechanical part, likely a shaft or tube, showing dimensions and labels. The drawing includes a side view and a cross-sectional view.

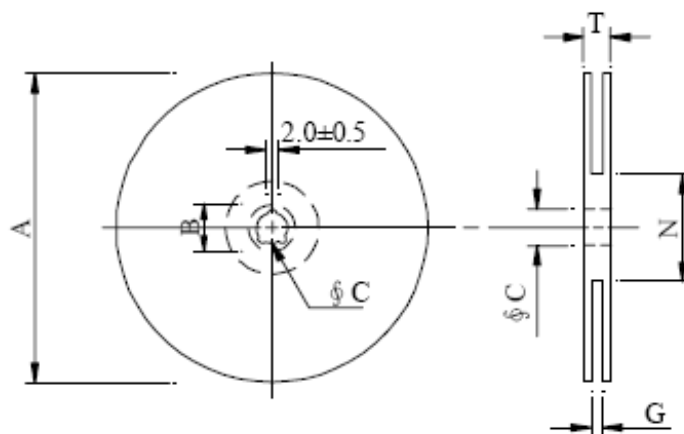
Dimensions:

- 4.00 (Total length of the main section)
- 2.00 ± 0.05 (Distance between two specific features)
- 1.5 Dia. +0.1/-0.0 (Diameter of a hole)
- 1.5 (Radius or distance)
- 1.75 (Distance from the end to a feature)
- 5.50 (Distance between two features)
- W (Width of the part)
- A (Distance from the centerline to a feature)
- P (Pitch of the holes)
- A₀ (Distance from the centerline to the first hole)
- B₀ (Distance from the centerline to the first hole)
- K₀ (Distance from the centerline to the first hole)

Labels:

- 1 (Feature 1)
- 2 (Feature 2)

Ao	4.50
Bo	4.35
Ko	1.90
W	12
P	8
T	0.3



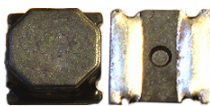
A	330
B	21.0±0.8
C	13.5±0.5
G	12.6
N	99.5
T	17.2



ABRACON®
LLC

ABRACON IS
ISO9001-2015
CERTIFIED

LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



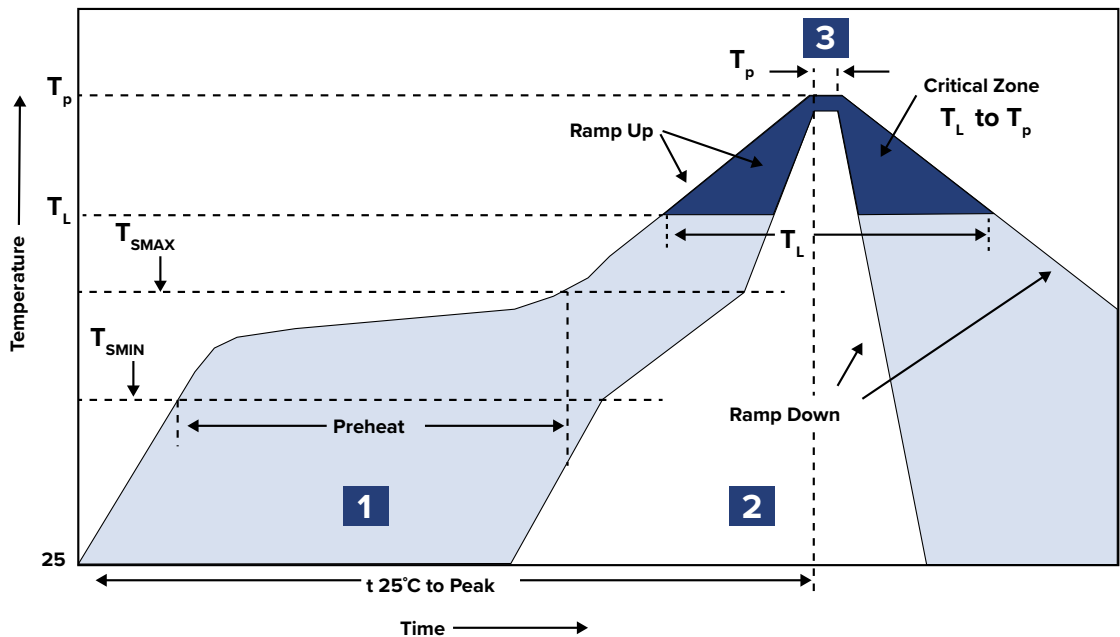
4.0 x 4.0 x 1.8mm/
4.0 x 4.0 x 1.88mm

ASPI-0418FS



RoHS
Compliant

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

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.