ECN/PCN No.: M1169

For Manufacturer		
Product Description: Low Profile Shielded SMD Chip Power Inductor	**Abracon Part Number / Part Series:** ASPI-0418FS Series	☒ Series ☐ Part Number
Affected Revision: E	**New Revision:** F	**Application:** ☐ Safety ☒ Non-Safety

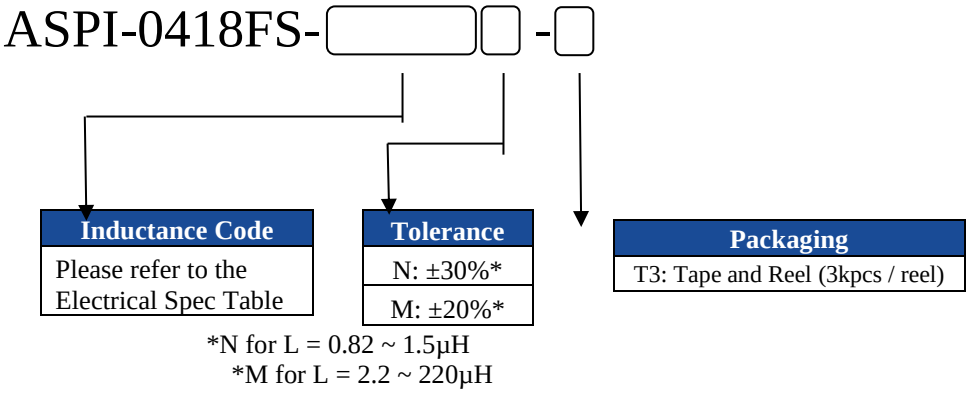
Prior to Change:

HEADER:
4.0 x 4.0 x 1.88mm/
4.0 x 4.0 x 1.80mm

1.0 Key Electrical Specifications

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	±20%	3.00	2.90
ASPI-0418FS-2R7	2.7	M	43		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

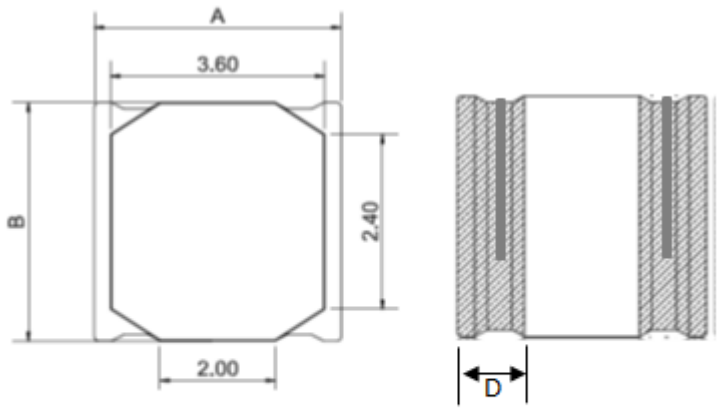
4.0 Part Number Identification



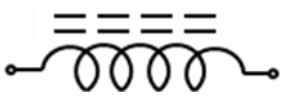
*N for L = 0.82 ~ 1.5µH
*M for L = 2.2 ~ 220µH

5.0 No Marking

6.0 Mechanical and Schematic Information

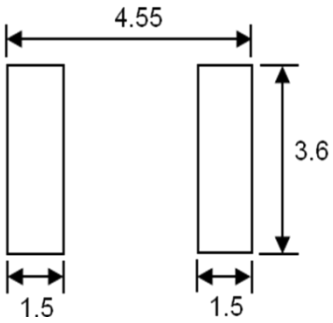


A	B	C Max.	D
4.0±0.2	4.0±0.2	1.88 for R82-2R7 1.80 for 3R3-221	1.3



No Polarity

Recommended Land Pattern



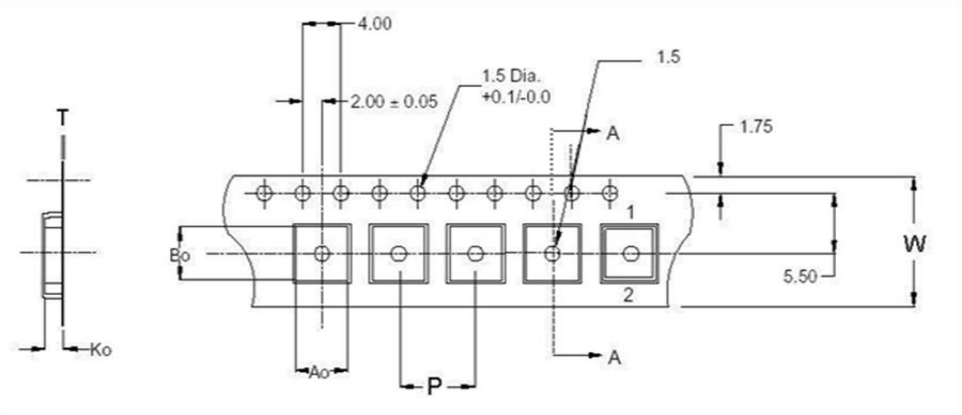
Dimension: mm

7.0 Materials

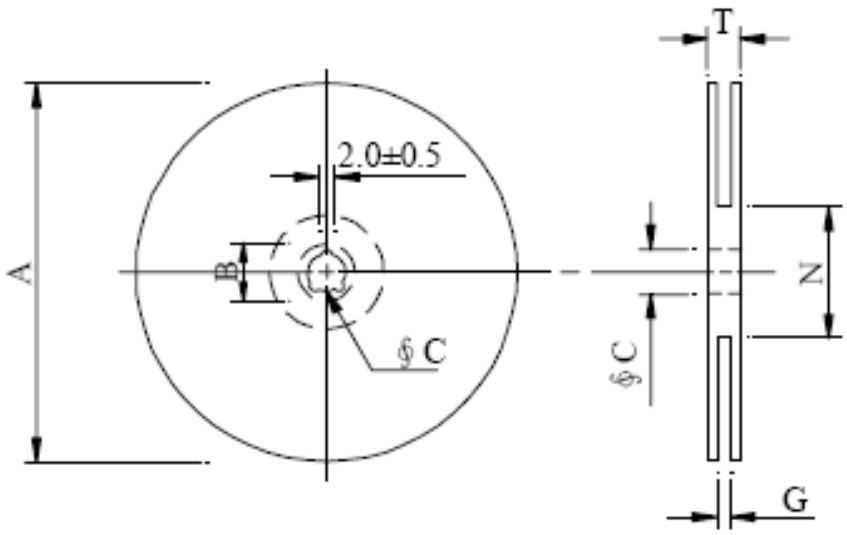
No	Part Name	Material
1	Drum core	Ni-Zn Ferrite
2	Terminals	Copper alloy, Sn
3	Coil	Cu/UEW
4	Adhesive	Epoxy base resin
	Magnetic powder	Ni-Zn Ferrite

9.0 Packing

T3: 3,000pcs / reel



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

Dimension: mm

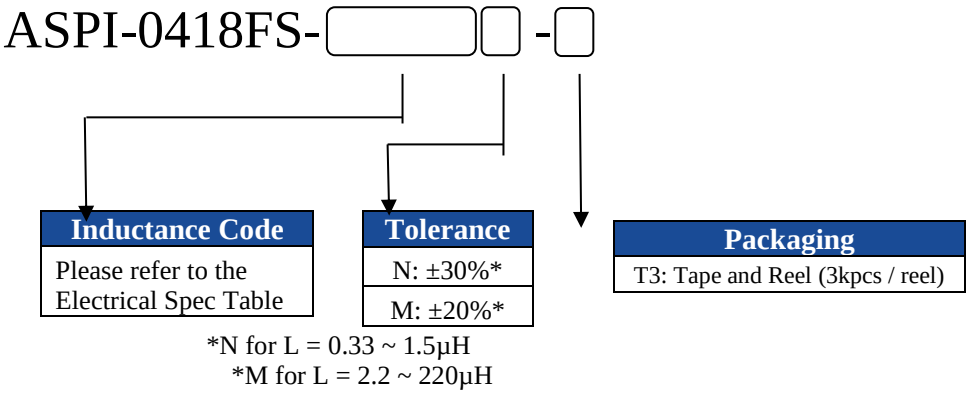
After Change:

HEADER:
4.0 x 4.0 x 1.80mm

1.0 Key Electrical Specifications

Part Number	Inductance	Inductance Tolerance	DCR		DCR Tolerance	Self-Resonant Frequency	Saturation Current Max.	Temp Rise Current Max.
Units	µH	%	mΩ	mΩ	%	MHz	A	A
Symbol	L	M, N	Max	Typ		SRF	Isat	Irms
ASPI-0418FS-R33	0.33	N	16	12	±30%	230	6.50	4.20
ASPI-0418FS-R47	0.47	N	20	17		220	6.50	3.50
ASPI-0418FS-1R0	1.0	N	32	27		90	4.00	3.20
ASPI-0418FS-1R5	1.5	N	37	31		70	3.60	2.95
ASPI-0418FS-2R2	2.2	M	50	42	±20%	60	3.00	2.20
ASPI-0418FS-3R3	3.3	M	66	55		45	2.30	2.00
ASPI-0418FS-4R7	4.7	M	84	70		35	2.00	1.70
ASPI-0418FS-6R8	6.8	M	118	98		30	1.60	1.45
ASPI-0418FS-100	10	M	180	150		25	1.30	1.20
ASPI-0418FS-150	15	M	252	210		18	1.10	0.85
ASPI-0418FS-220	22	M	348	290		15	0.90	0.70
ASPI-0418FS-330	33	M	552	460		12	0.70	0.55
ASPI-0418FS-470	47	M	744	620		11	0.57	0.50
ASPI-0418FS-680	68	M	972	810		7.1	0.53	0.40
ASPI-0418FS-101	100	M	1560	1300		5.2	0.49	0.40
ASPI-0418FS-151	150	M	3120	2600		5.1	0.41	0.28
ASPI-0418FS-221	220	M	3840	3200		4.2	0.33	0.25
ASPI-0418FS-331	330	M	5880	4900		3.2	0.26	0.20

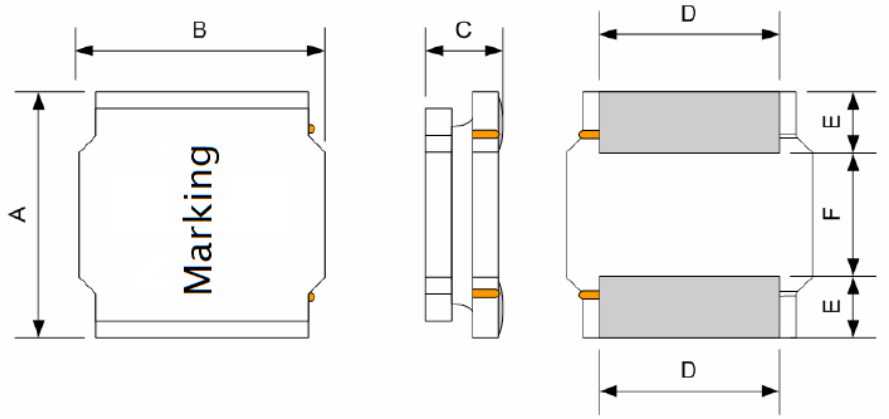
4.0 Part Number Identification



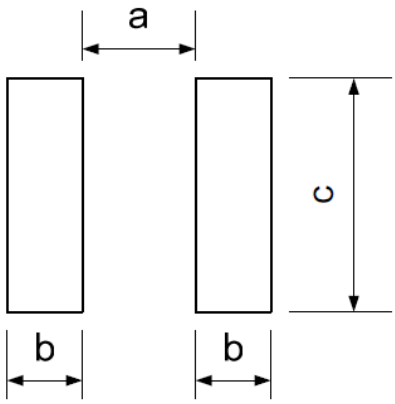
*N for L = 0.33 ~ 1.5µH
*M for L = 2.2 ~ 220µH

5.0 Marking: Ink Marking

6.0 Mechanical and Schematic Information



Recommended Land Pattern

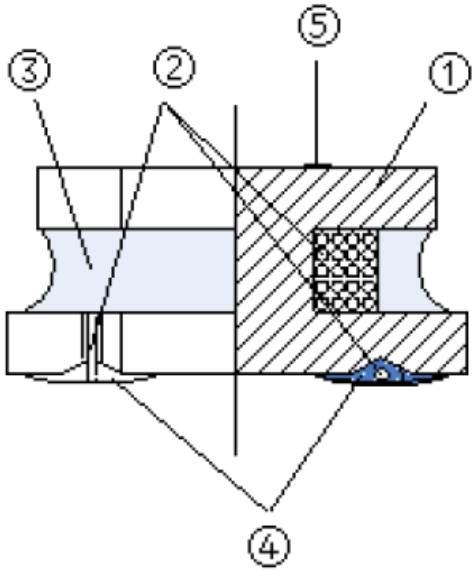


A	B	C Max.	D	E	F	a typ.	b typ.	c typ.
4.0±0.2	4.0±0.2	1.8	3.3±0.2	0.95±0.2	2.1±0.2	1.9	1.1	3.7

Dimensions: mm

7.0 Materials

No	Part Name	Material
1	Ferrite Core	Ni-Zn Ferrite
2	Wire	Polyurethane system enameled copper wire
3	Magnetic Glue	Epoxy resin and magnetic powder
4	Electrodes	Ag/Ni/Sn or FeNiCu + Sn Alloy
5	Marking	Nitrocellulose



9.0 Packing

T3: 3,000pcs / reel

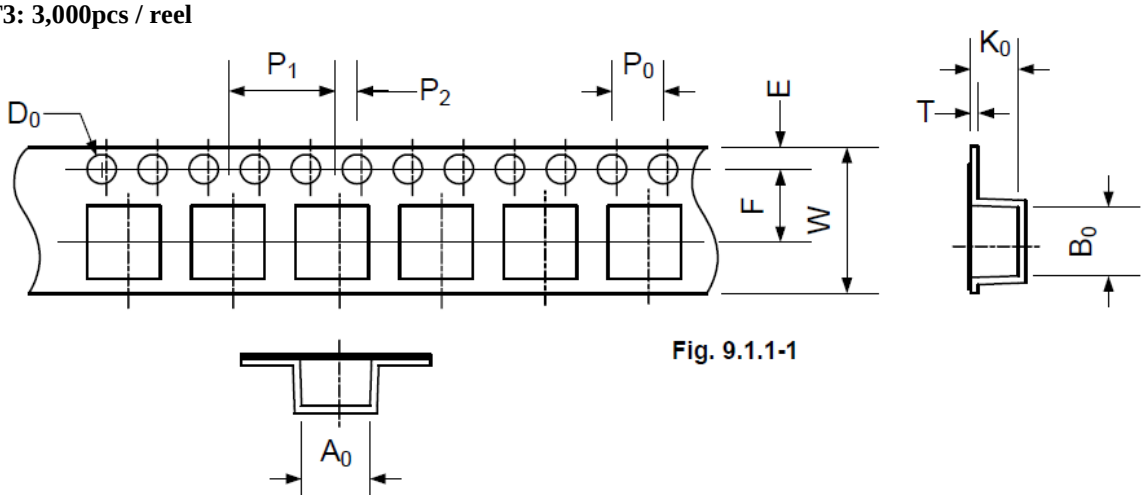
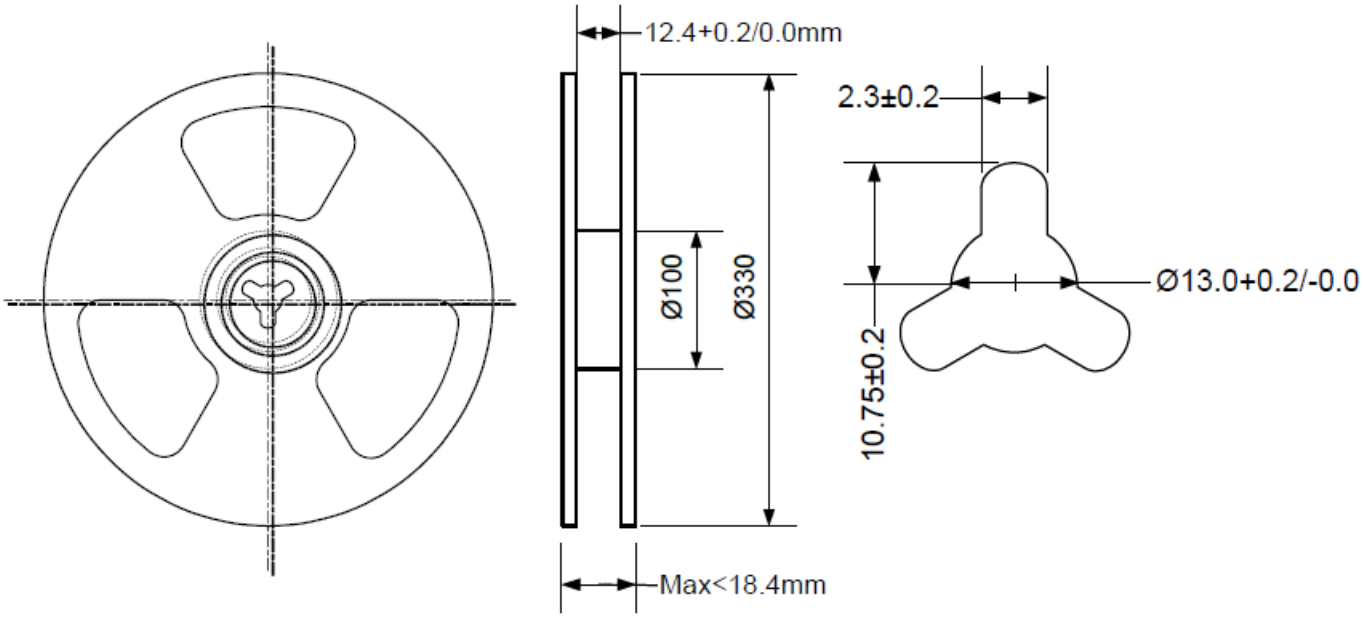


Fig. 9.1.1-1

A_0	B_0	W	E	F	P_0	P_1	P_2	D_0	T
4.3±0.1	4.3±0.1	12.0±0.3	1.75±0.1	5.5±0.1	4.0±0.1	8.0±0.1	2.0±0.05	1.5+0.1/-0.0	0.35± 0.03

Dimension: mm



Cause/Reason for Change:
General specification update with updated parameters and inclusion of SRF. Package materials graphics updated.

The following devices were discontinued:
ASPI-0418FS-R82
ASPI-0418FS-1R2
ASPI-0418FS-2R7

Devices added to the series incude:
ASPI-0418FS-331

Change Plan

Effective Date:	**Additional Remarks:**
5/4/2020	

Change Declaration:
General specification updates, series cleanup. Changes included in this ECN do not impact the products form, fit or function.

Issued Date:	**Issued By:**	**Issued Department:**
5/4/2020	*Gerald Capwell*	Engineering
Approval:	**Approval:**	**Approval:**
Syed Raza Engineering VP	*Reuben Quintanilla* Quality Director	*Ying Huang* Purchasing Director

For Abracon EOL only

Last Time Buy (if applicable):	**Alternate Part Number / Part Series:**

Additional Approval:	**Additional Approval:**	**Additional Approval:**

Customer Approval (If Applicable)

Qualification Status:

☐ Approved ☐ Not accepted

Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.

Customer Part Number:	**Customer Project:**

Company Name:	**Company Representative:**	**Representative Signature:**

Customer Remarks: