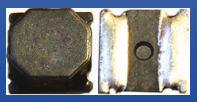
Low Profile Shielded SMD Chip Power Inductor



ASPI-0418FS

4.0 x 4.0 x 1.80mm
RoHS Compliant

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 & other portable communication equipment
- Digital cameras

Electrical Specifications

Operating Temperature:	-40˚C to +125˚C (Including self-generated heat)
Storage Temperature:	-40˚C to +125˚C

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

Test Conditions

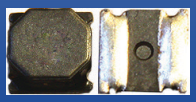
1. Inductance is measured in HP-4285A Precision LCR Meter
2. RDC is measured in DU-5011 milli ohm meter (or equivalent)
3. Isat: Based on inductance change (ΔL/Lo: ≤ -30%)
4. Irms: Based on temperature rise (ΔT: 40°C TYP.)
5. Test Freq: 100KHz, 1Vrms

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5101 Hidden Creek Ln Spicewood TX 78669
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RoHS Compliant

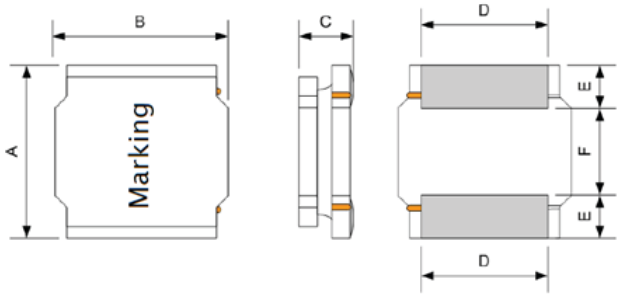
Part Number Identification

ASPI-0418FS-□□ -□

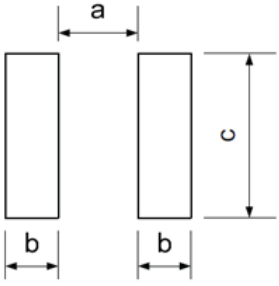
Inductance Code	Tolerance	Packaging
Please refer to the Electrical Spec Table	N: ±30%* M: ±20%*	T3: Tape and Reel (3kpcs / reel)

*N for L = 0.33 ~ 1.5µH
*M for L = 2.2 ~ 330µH

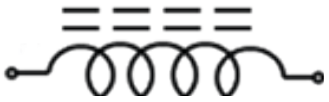
Mechanical Information



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



No Polarity

Dimensions: mm

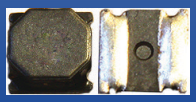
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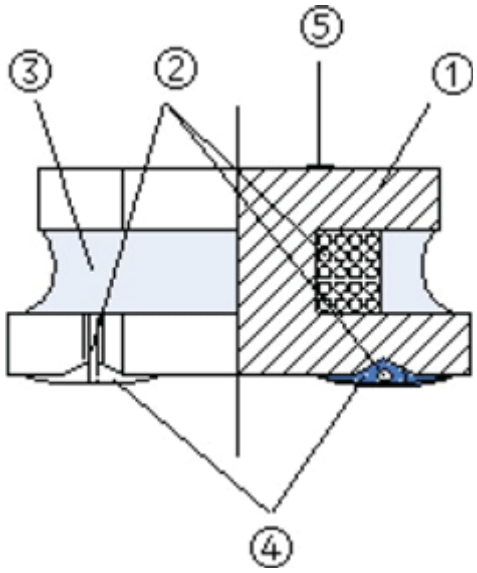
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RoHS Compliant

Materials



#	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

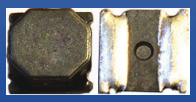
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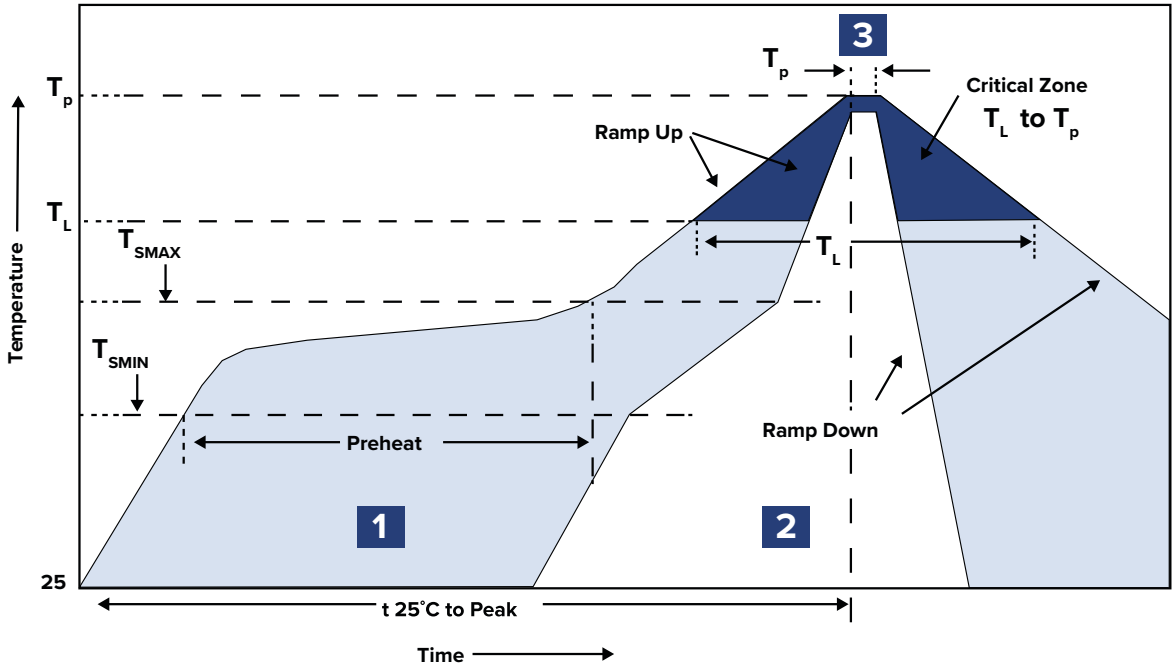
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Reflow Profile



Zone	Description	Temperature	Time
1	Preheat / Soak	T_{SMIN} ~ T_{SMAX} 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L 217°C	60 ~ 90 sec.
3	Peak heat	T_P 260°C	10 sec. MAX

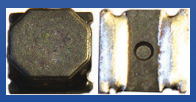
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Packaging

T3= Tape and Reel (3,000pcs/reel)

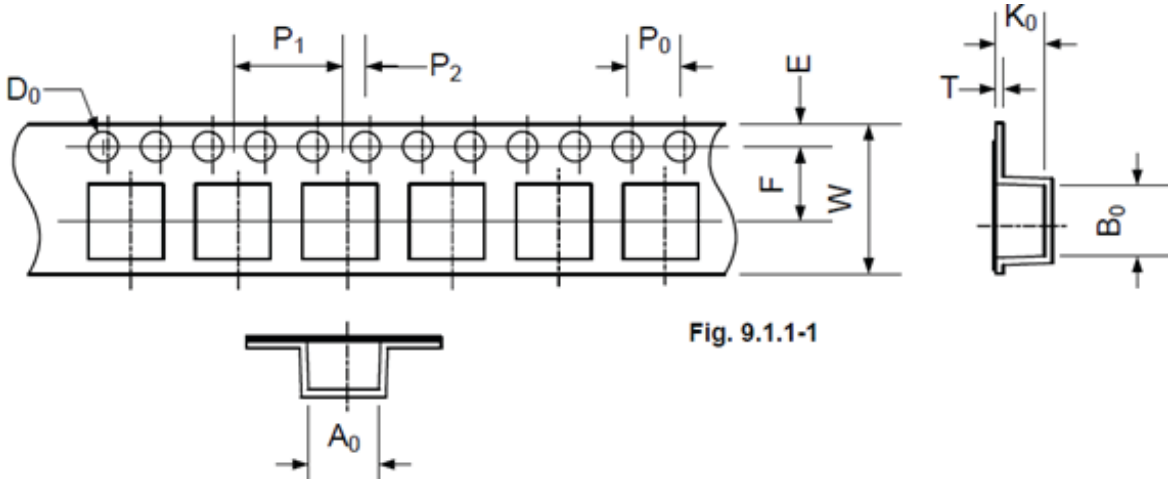
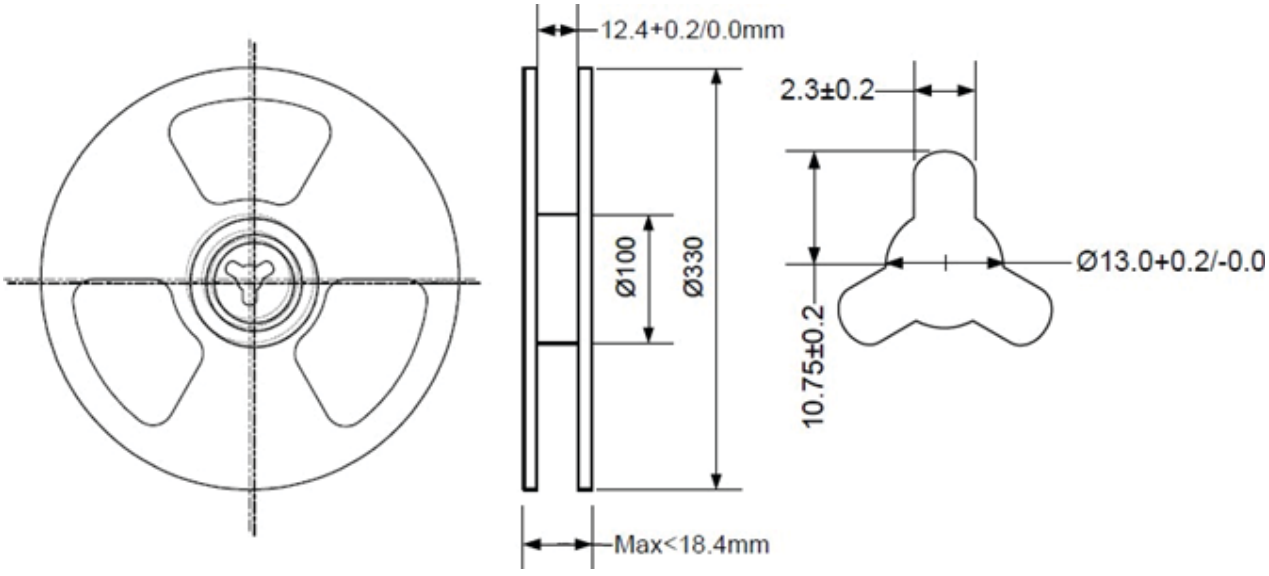


Fig. 9.1.1-1

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



Dimensions: mm

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