

LOW PROFILE SHIELDED SMD CHIP POWER INDUCTOR



4.0 x 4.0 x 1.2mm

ASPI-0412FS



RoHS
Compliant

FEATURES:

- Small size and low profile: 1.2mm
- 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:

Abracon P/N:	ASPI-0412FS Series
Operating Temperature & Humidity:	-30°C to +100°C, 5% to 85% RH. Please avoid moisture due to the humidity.
Storage Temperature & Humidity:	-20°C to +60°C, 5% to 85% RH. Please avoid moisture due to the humidity.

Part Number	Inductance	DCR	Saturation Current	Temperature Rise Current	Marking
Units	$\mu\text{H} \pm 20\%$	$\text{m}\Omega \pm 20\%$	A	A	—
Symbol	L	DCR	Isat*	I _{rms} *	—
ASPI-0412FS-2R2M	2.2	70	1.80	1.65	2R2
ASPI-0412FS-3R3M	3.3	100	1.55	1.40	3R3
ASPI-0412FS-4R7M	4.7	130	1.20	1.15	4R7
ASPI-0412FS-6R8M	6.8	180	1.05	0.95	6R8
ASPI-0412FS-100M	10	240	0.85	0.90	100
ASPI-0412FS-220M	22	550	0.60	0.55	220

*The rated current is subject to change depending upon the temperature cooling condition.

Test Conditions

Inductance: 100kHz, 0.3V, $T_a = 20^\circ\text{C}$

DCR: $T_a = 20^\circ\text{C}$

Isat: $\Delta L/L$ (initial) $\geq -30\%$

I_{rms}: $\Delta T \leq 40^\circ\text{C}$

OPTIONS AND PART IDENTIFICATION

ASPI-0412FS- -

Inductance Code

Please refer to the table above

Packaging

T: Tape and Reel
(1kpcs / reel)

T4: Tape and Reel
(4kpcs / reel)

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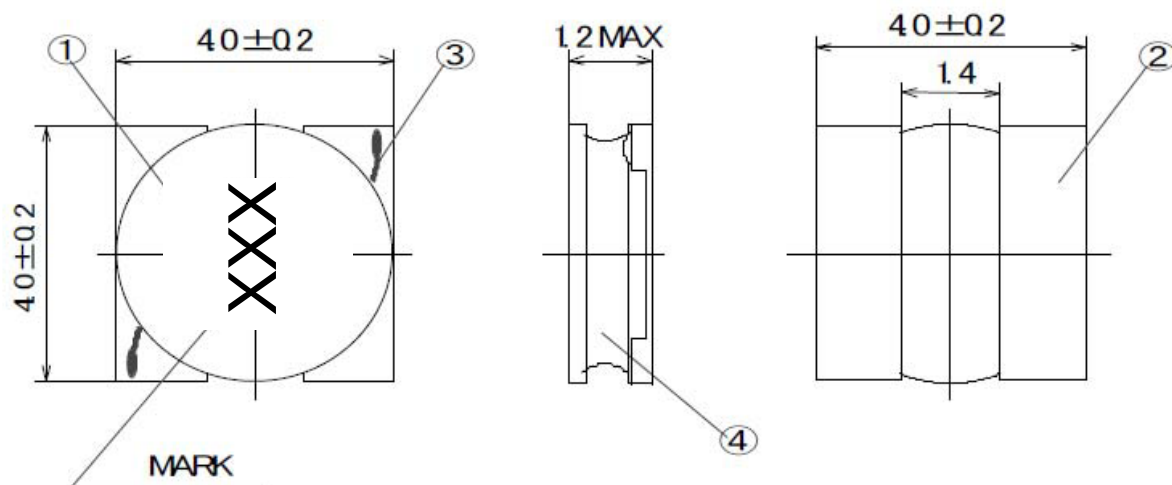
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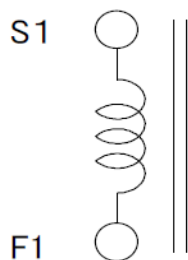
4.0 x 4.0 x 1.2mm

OUTLINE DRAWING:

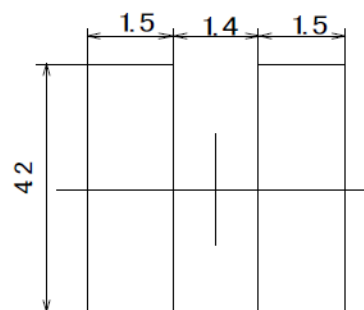
Mechanical Dimensions



Circuit Schematic



Recommended Land Pattern



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

Dimension: mm

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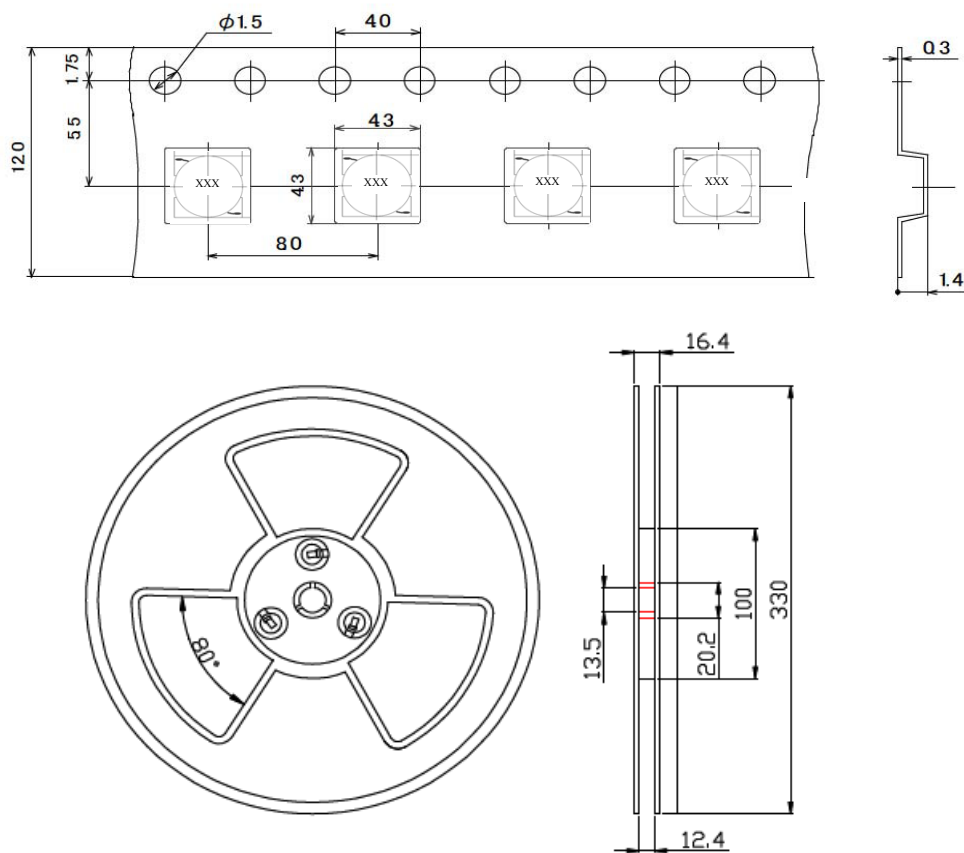
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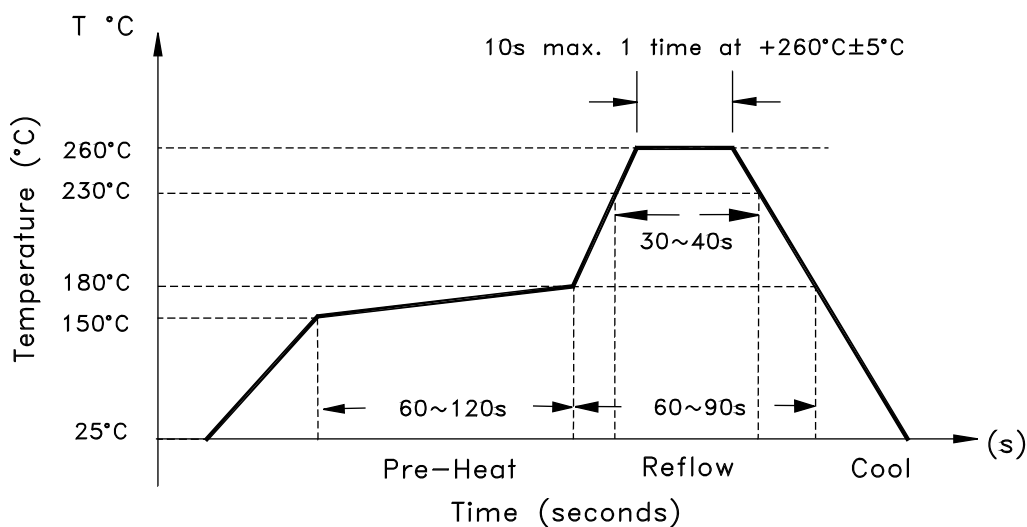
TAPE & REEL:

T: 1,000pcs / reel
T4: 4,000pcs / reel



Dimension: mm

REFLOW PROFILE:



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.

ABRACON IS
ISO9001:2008
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