

ASPI-0403-120K-T Datasheet

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DiGi Electronics Part Number	ASPI-0403-120K-T-DG
Manufacturer	Abracon LLC
Manufacturer Product Number	ASPI-0403-120K-T
Description	FIXED IND 12UH 970MA 210MOHM SMD
Detailed Description	12 μ H Unshielded Drum Core, Wirewound Inductor 970 mA 210mOhm Max Nonstandard



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Purchase and inquiry

Manufacturer Product Number:

ASPI-0403-120K-T

Series:

ASPI-0403

Type:

Drum Core, Wirewound

Inductance:

12 μ H

Current Rating (Amps):

970 mA

Shielding:

Unshielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

2.52 MHz

Package / Case:

Nonstandard

Size / Dimension:

0.177" L x 0.157" W (4.50mm x 4.00mm)

Manufacturer:

Abracon LLC

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

\pm 10%

Current - Saturation (Isat):

-

DC Resistance (DCR):

210mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-40°C ~ 85°C

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.138" (3.50mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.4000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



4.5 x 4.0 x 3.2mm

ASPI-0403



RoHS
Compliant

FEATURES:

- Suitable for RoHS reflow profile
- High current rating and low DCR
- Special lead wire design to prevent open circuit failure
- Excellent terminal strength to mechanical stress

APPLICATIONS:

- OA equipments
- PC and notebook
- LCD TV set
- Power supply

ELECTRICAL SPECIFICATIONS:

Operating Temperature:	-40°C to +125°C
Storage Temperature:	+15°C to +28°C

PART NUMBER	INDUCTANCE (uH)	Tolerance K, M, N	DCR (Ω) max	Testing Conditions	IDC (A) max
ASPI-0403-0R5	0.5	M	0.020	100KHz, 0.25V	3.00
ASPI-0403-1R0	1.0	M	0.049	100KHz, 0.25V	2.70
ASPI-0403-1R2	1.2	N	0.049	100KHz, 0.25V	2.54
ASPI-0403-1R4	1.4	M	0.053	100KHz, 0.25V	2.50
ASPI-0403-1R5	1.5	M	0.056	100KHz, 0.25V	2.24
ASPI-0403-1R8	1.8	M	0.064	100KHz, 0.25V	2.33
ASPI-0403-2R2	2.2	M	0.072	100KHz, 0.25V	2.25
ASPI-0403-2R7	2.7	M	0.079	100KHz, 0.25V	2.16
ASPI-0403-3R3	3.3	M	0.086	100KHz, 0.25V	2.00
ASPI-0403-3R9	3.9	M	0.094	100KHz, 0.25V	1.84
ASPI-0403-4R7	4.7	M	0.109	100KHz, 0.25V	1.62
ASPI-0403-5R6	5.6	M	0.126	100KHz, 0.25V	1.48
ASPI-0403-6R8	6.8	M	0.131	100KHz, 0.25V	1.43
ASPI-0403-8R2	8.2	M	0.147	100KHz, 0.25V	1.37
ASPI-0403-100	10	K, M	0.182	1KHz, 0.25V	1.04
ASPI-0403-120	12	K, M	0.210	1KHz, 0.25V	0.97
ASPI-0403-150	15	K, M	0.235	1KHz, 0.25V	0.85
ASPI-0403-180	18	K, M	0.338	1KHz, 0.25V	0.74
ASPI-0403-220	22	K, M	0.378	1KHz, 0.25V	0.68
ASPI-0403-270	27	K, M	0.522	1KHz, 0.25V	0.62
ASPI-0403-330	33	K, M	0.540	1KHz, 0.25V	0.56
ASPI-0403-390	39	K, M	0.587	1KHz, 0.25V	0.52
ASPI-0403-470	47	K, M	0.844	1KHz, 0.25V	0.44
ASPI-0403-560	56	K, M	0.937	1KHz, 0.25V	0.42
ASPI-0403-680	68	K, M	1.117	1KHz, 0.25V	0.37
ASPI-0403-820	82	K, M	1.140	1KHz, 0.25V	0.34
ASPI-0403-101	100	K, M	1.190	1KHz, 0.25V	0.30
ASPI-0403-121	120	K, M	1.400	1KHz, 0.25V	0.256
ASPI-0403-151	150	K, M	1.800	1KHz, 0.25V	0.212
ASPI-0403-181	180	K, M	1.920	1KHz, 0.25V	0.200
ASPI-0403-221	220	K, M	2.030	1KHz, 0.25V	0.180
ASPI-0403-271	270	K, M	2.890	1KHz, 0.25V	0.174
ASPI-0403-331	330	K, M	3.760	1KHz, 0.25V	0.168
ASPI-0403-391	390	K, M	4.260	1KHz, 0.25V	0.160
ASPI-0403-471	470	K, M	5.140	1KHz, 0.25V	0.158
ASPI-0403-561	560	K, M	6.370	1KHz, 0.25V	0.148
ASPI-0403-681	680	K, M	9.240	1KHz, 0.25V	0.128
ASPI-0403-821	820	K, M	13.40	1KHz, 0.25V	0.110
ASPI-0403-102	1000	K, M	15.60	1KHz, 0.25V	0.109

Test Conditions

Isat: $\Delta L/L$ (initial) \geq -10% or $\Delta T=40^\circ C$ ($T_a=20^\circ C$), whichever is lower.



4.5 x 4.0 x 3.2mm

ASPI-0403



RoHS
Compliant

➤ OPTIONS AND PART IDENTIFICATION

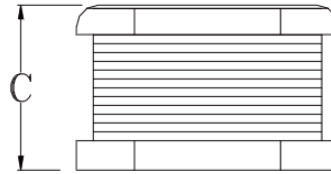
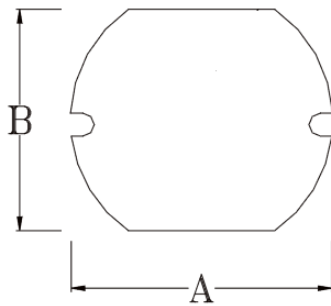
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Inductance Code
Please refer to the table above

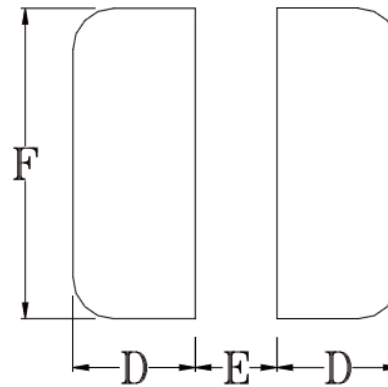
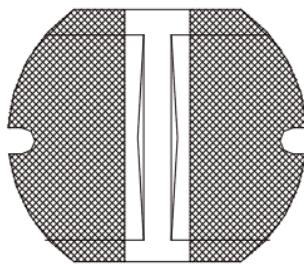
Tolerance %
K: ± 10%
M: ± 20%

Packaging
T: Tape and Reel (2000 pcs/reel)

➤ OUTLINE DRAWING



Recommended Land Pattern



A	B	C	D	E	F
4.5±0.3	4.0±0.3	3.2±0.30	1.80	1.50	4.50

Dimension: mm



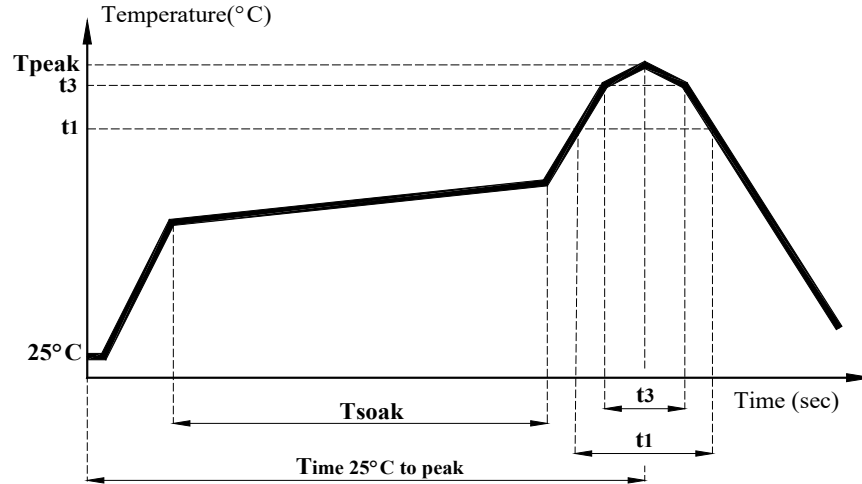
4.5 x 4.0 x 3.2mm

ASPI-0403



RoHS
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➤ OUTLINE DRAWING:



Item	mark	
Temperature rise gradient		3°C/sec (max)
Heating time	Tsoak	50s ~ 150s
Heating temperature		120°C~180°C
Time over 217°C	t1	70 sec
Time within 5°C of actual peak temperature	t3	10~30 sec
Peak temperature	Tpeak	250 (+0 / -5 °C)
Time 25°C to peak Temperature		6 minutes max.



4.5 x 4.0 x 3.2mm

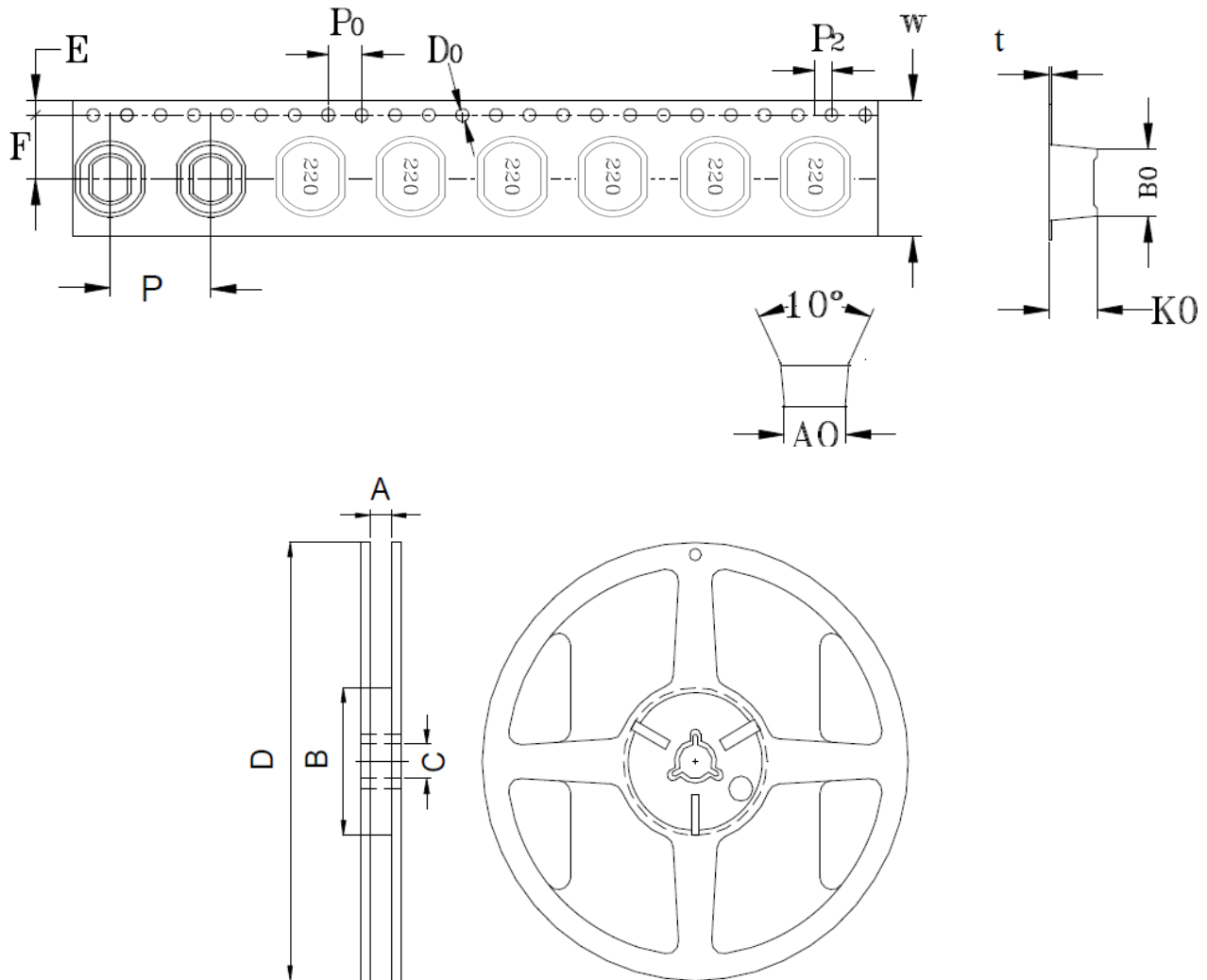
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RoHS
Compliant

TAPE & REEL:

T: 2,000pcs / reel



CARRIER TAPE / SIZE (mm)										REEL 13"×24mm			
A0	B0	K0	F	E	W	P	P0	P2	t	A	B	C	D
4.2 ± 0.1	4.8 ± 0.1	3.3 ± 0.1	5.5 ± 0.1	1.75 ± 0.1	12 ± 0.3	8 ± 0.1	4 ± 0.1	2 ± 0.1	0.4 ± 0.05	12.5 ± 0.5	100 ± 0.5	13.2 ± 0.3	330 ± 1.0

Dimension: mm

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