

# ASPI-0520-3R3M-T Datasheet



DiGi Electronics Part Number	ASPI-0520-3R3M-T-DG
Manufacturer	<a href="#">Abracon LLC</a>
Manufacturer Product Number	ASPI-0520-3R3M-T
Description	FIXED IND 3.3UH 2.4A 48 MOHMS
Detailed Description	3.3 $\mu$ H Shielded Wirewound Inductor 2.4 A 48mOhm Max Nonstandard

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## Purchase and inquiry

Manufacturer Product Number:

ASPI-0520-3R3M-T

Series:

ASPI-0520

Type:

Wirewound

Inductance:

3.3  $\mu$ H

Current Rating (Amps):

2.4 A

Shielding:

Shielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.079" (2.00mm)

Manufacturer:

Abracon LLC

Product Status:

Active

Material - Core:

-

Tolerance:

$\pm$ 20%

Current - Saturation (Isat):

2.4A

DC Resistance (DCR):

48mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-25°C ~ 120°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.197" L x 0.197" W (5.00mm x 5.00mm)

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.4000

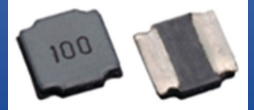
Moisture Sensitivity Level (MSL):

2 (1 Year)

ECCN:

EAR99

# Low Profile Shielded SMD Chip Power Inductor



ASPI-0520



5.0 x 5.0 x 2.0mm  
RoHS Compliant  
MSL Level: 2

## Features

- Small and low profile inductor
- High current performance
- High magnetic shield construction should actualize high resolution.
- Available for automatic mounting in tape and reel package

## Applications

- Mobile phones
- HDD, DVC, DSC, PDA, LCD display

## Electrical Specifications

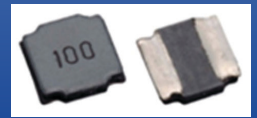
<b>Operating Temperature:</b>	-25°C to +120°C (Including self-generated heat)
<b>Storage Temperature:</b>	-10°C to +40°C, 30% to 70% RH

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-0520-1R0	1.0	N	21	±30%	4.00	3.60
ASPI-0520-1R5	1.5	N	26		3.35	3.20
ASPI-0520-2R2	2.2	N	35		2.90	2.90
ASPI-0520-3R3	3.3	M	48	±20%	2.40	2.40
ASPI-0520-4R7	4.7	M	60		2.00	2.00
ASPI-0520-5R6	5.6	M	88		1.80	1.80
ASPI-0520-6R8	6.8	M	90		1.60	1.65
ASPI-0520-100	10.0	M	120		1.30	1.45
ASPI-0520-150	15.0	M	165		1.10	1.20
ASPI-0520-220	22.0	M	260		0.90	1.00
ASPI-0520-330	33.0	M	430		0.80	0.90

## 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 (L/Lo : ≤ -30%)
4. Irms : Based on temperature rise (T : 40°C TYP.)
5. Test Freq: 100KHz, 1Vrms

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5.0 x 5.0 x 2.0mm  
RoHS Compliant  
MSL Level: 2

## Part Number Identification

ASPI-0520-  - 

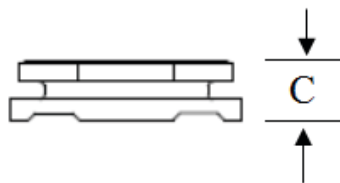
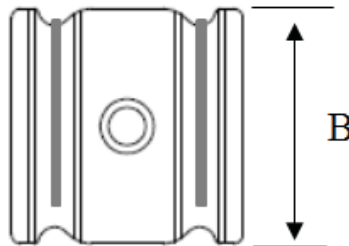
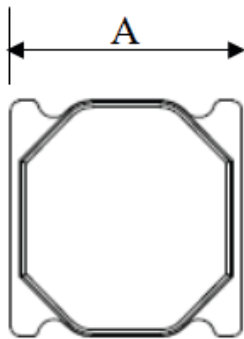
**Inductance Code**  
Please refer to the Electrical Spec Table

**Tolerance**  
N:  $\pm 30\%^*$   
M:  $\pm 20\%^*$

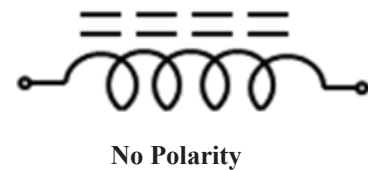
**Packaging**  
T2: Tape and Reel (2kpcs / reel)

\*N for L = 1.0 ~ 2.2 $\mu$ H  
\*M for L = 3.3 ~ 33 $\mu$ H

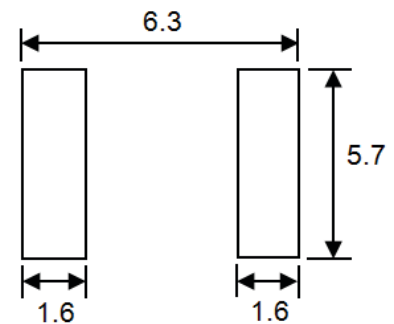
## Mechanical Information



Circuit Schematic



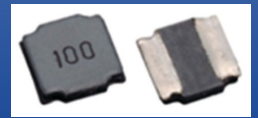
Recommended Land Pattern



A	B	C Max
5.0 $\pm$ 0.2	5.0 $\pm$ 0.2	2.0

Dimensions: mm

# Low Profile Shielded SMD Chip Power Inductor

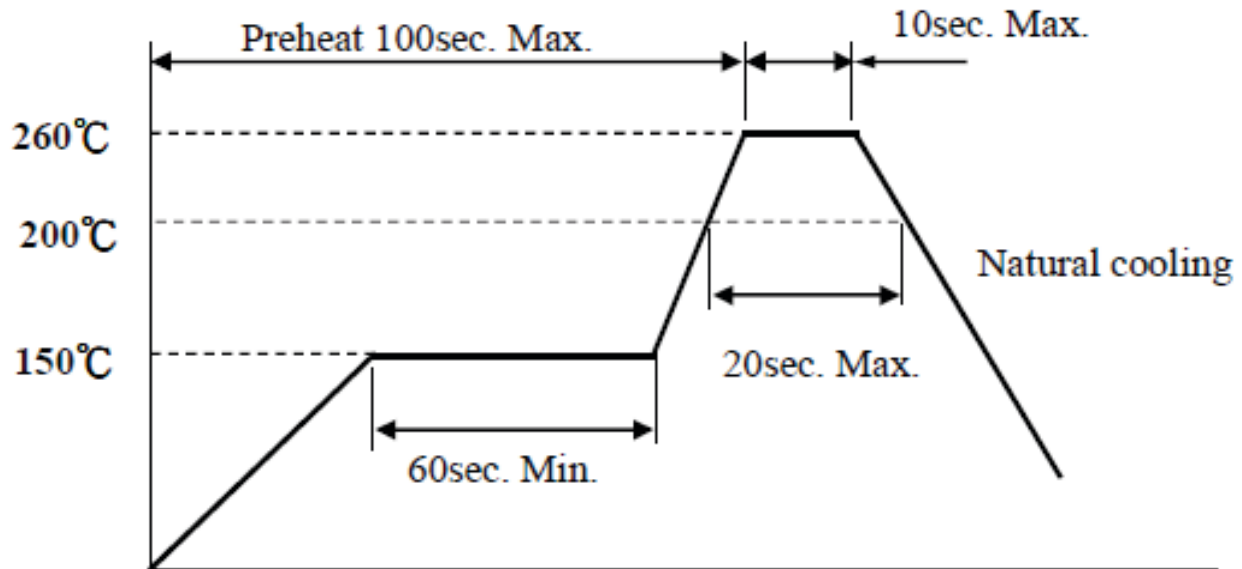


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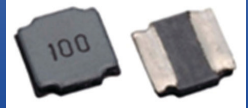


5.0 x 5.0 x 2.0mm  
 RoHS Compliant  
 MSL Level: 2

## Reflow Profile



# Low Profile Shielded SMD Chip Power Inductor



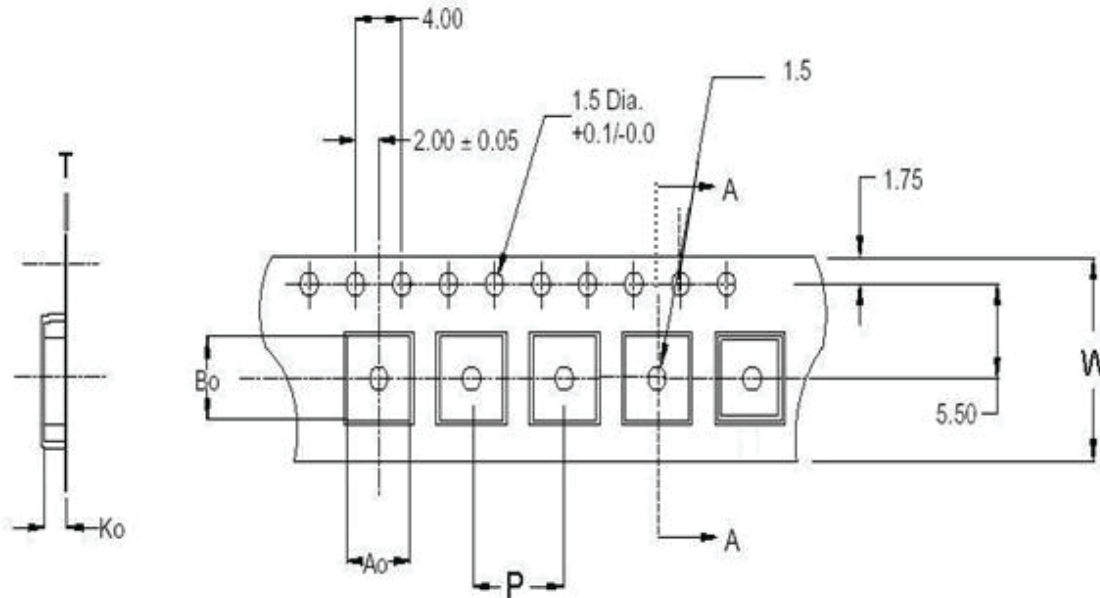
ASPI-0520



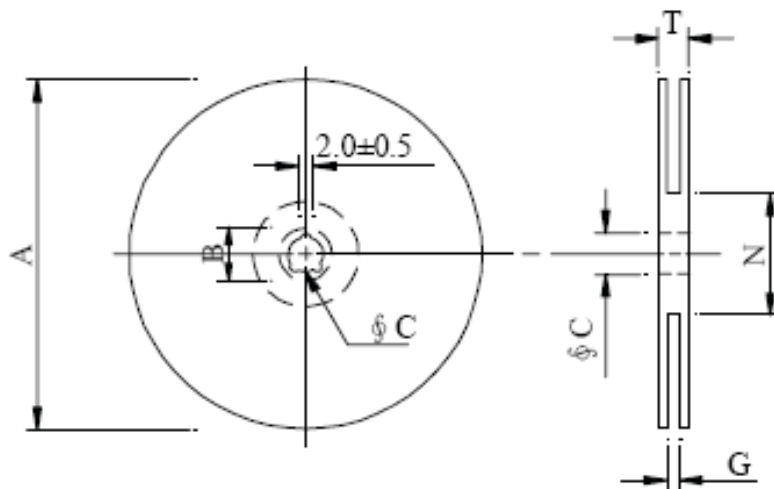
5.0 x 5.0 x 2.0mm  
RoHS Compliant  
MSL Level: 2

## Packaging

T2= 2,000pcs/reel



$A_0$	5.40
$B_0$	5.40
$K_0$	2.25
$W$	12.00
$P$	8.00
$T$	0.40



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

Dimensions: mm

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