

# Molded SMD Power Inductor



ASPI-F7050

Request Samples



Check Inventory



8.4 x 8.0 x 4.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Features

- Shielded construction
- Soft saturation
- Low DCR, High Efficiency
- Designed for switching frequencies between 100KHz-2MHz

## Applications

- Body electronics and comfort system
- Infotainment and entertainment
- Electric vehicles
- Lighting
- Solar inverters and power
- Industrial and robotics
- Medium and high power switch mode power supplies.

## Electrical Specifications

Part Number	Inductance	Tolerance	DC Resistance	Saturation Current	Temperature Rise Current
	0.1MHz/0.1V		Max	Max	Typ.
Units	$\mu$ H	%	m $\Omega$	A	A
Symbol	L		DCR	Isat	Irms
ASPI-F7050 – 2R2	2.2	20	6.4	17.0	14.0
ASPI-F7050 – 3R3	3.3	20	11.4	14.0	13.0
ASPI-F7050 – 4R7	4.7	20	15.4	13.0	11.0
ASPI-F7050 – 5R6	5.6	20	17.2	11.0	7.0

## Test Conditions

**Isat:** DC current at which the inductance drops 30% from its value without current.

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40 °C) from 20°C ambient

**Operating Temperature:** -40°C ~ +125°C (including self-temperature rise)

**Storage Condition:** -10°C ~ +40°C (in original packaging) and R.H. 60 max

**Operating Voltage:** 40V (across inductor)

ASPI-F7050 Series is RoHS Compliant and Pb free

MSL level: 1



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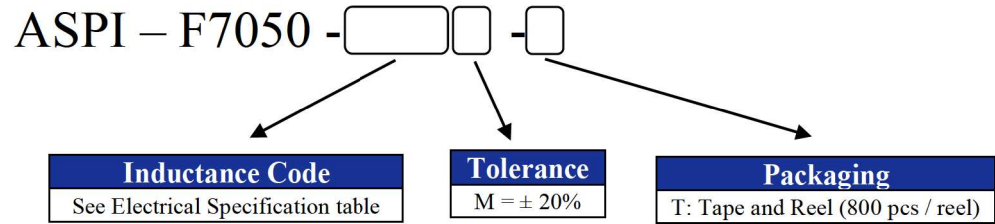


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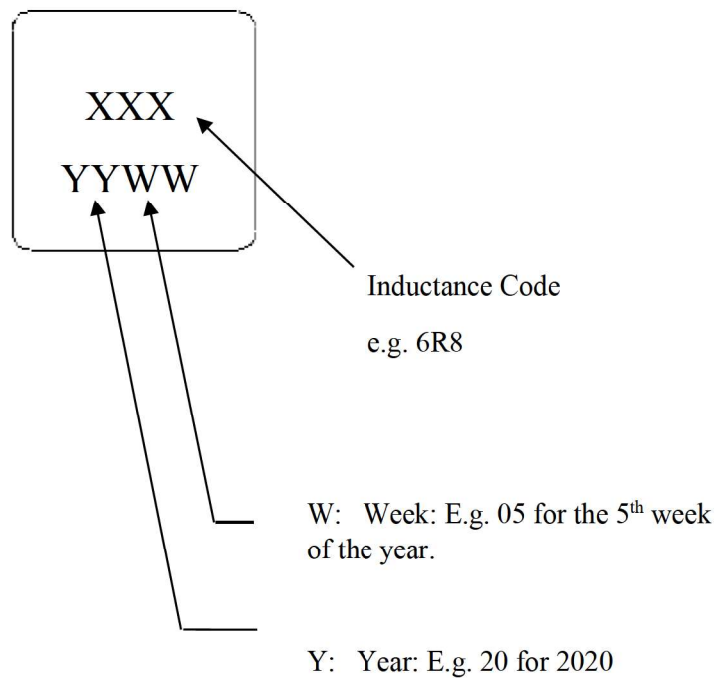


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## Part Number Identification



## Marking



Marking Method = Ink Marking



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**ASPI-F7050**

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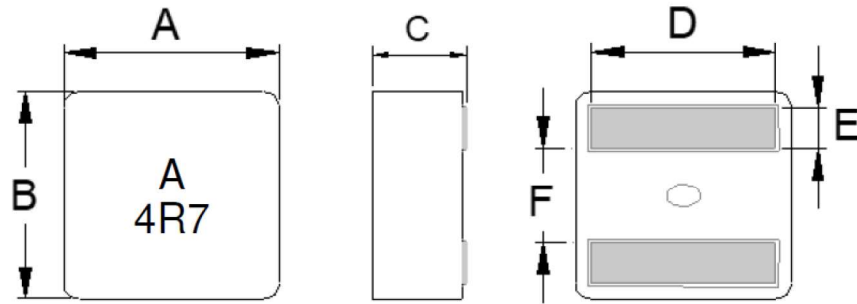


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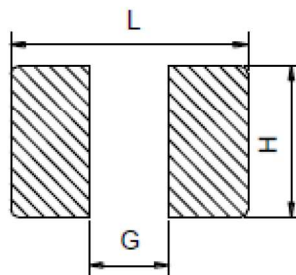


8.4 x 8.0 x 4.8 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Mechanical Dimensions



Series	A	B	C	D	E	F
ASPI-F7050	8.4 ± 0.3	8.0 ± 0.3	4.8 ± 0.3	6.2 ± 0.3	1.75 ± 0.2	3.15 ± 0.25



L	G	H
7.4 Ref.	2.8 Ref.	7.2 Ref.

Dimensions: mm

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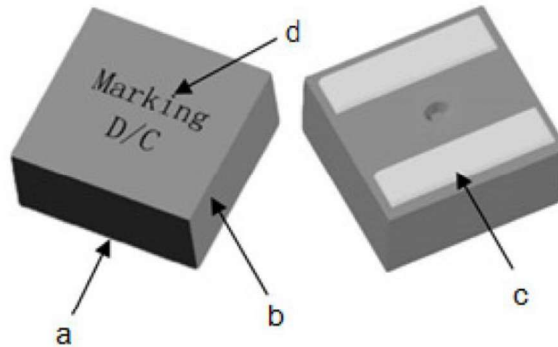


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8.4 x 8.0 x 4.8 mm  
RoHS/RoHS II Compliant  
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## Materials



	Components	Material
a	Core	Alloy powder
b	Wire	220 deg. C Flat Wire
c	Solder	100% Pb free solder
d	Ink	Halogen-free ketone

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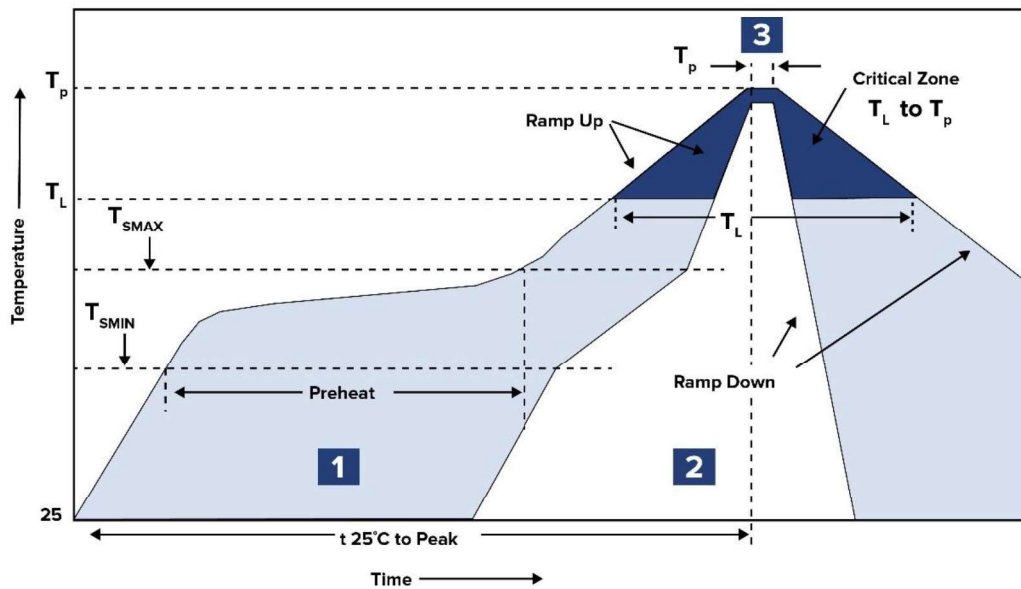


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8.4 x 8.0 x 4.8 mm  
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## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_P$ 260°C	10 sec. MAX

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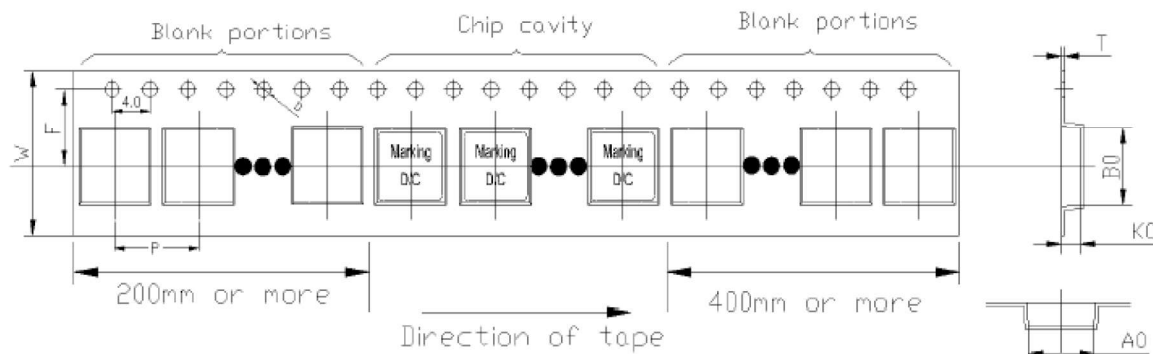
Check Inventory



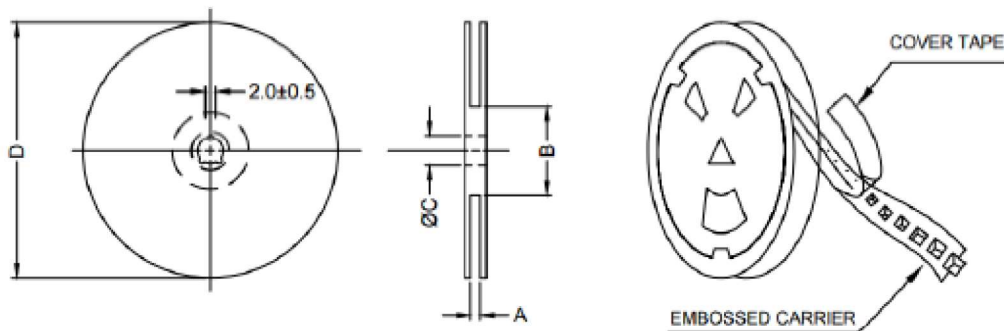
**8.4 x 8.0 x 4.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**Tape & Reel: 800 pcs/reel**



W	F	P	D	A <sub>0</sub>	B <sub>0</sub>	T	K <sub>0</sub>
16.0 ± 0.3	7.5 ± 0.1	12.0 ± 0.1	1.5 ± 0.1	8.8 ± 0.1	8.4 ± 0.1	0.35 ± 0.05	5.3 ± 0.1



A	B	C	D
16.4 + 2/-0	100 ± 2	13.0 + 0.5/-0.2	330

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