

# Molded SMD Power Inductor



**ASPI-F1010**

Request Samples



Check Inventory



11.9 x 11.0 x 9.7 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	Electrode Length
	0.1MHz/0.1V		Max	Max	Typ	±5%
Units	μH	%	mΩ	A	A	mm
Symbol	L		DCR (Max)	Isat	Irms	D
ASPI-F1010-2R2	2.2	M	2.8	29.0	32.0	9.3
ASPI-F1010-3R3	3.3	M	4.10	23.4	25.0	9.3
ASPI-F1010-4R7	4.7	M	5.70	21.4	24.0	9.3
ASPI-F1010-5R6	5.6	M	7.20	19.6	21.2	9.3
ASPI-F1010-6R8	6.8	M	8.90	18.5	18.5	9.0
ASPI-F1010-8R2	8.2	M	12.40	16.3	17.1	9.0
ASPI-F1010-100	10	M	13.75	14.6	15.5	9.0
ASPI-F1010-150	15	M	19.30	12.5	13.8	9.0

### 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-F1030 Series is **RoHS Compliant and Pb free**

MSL level: 1



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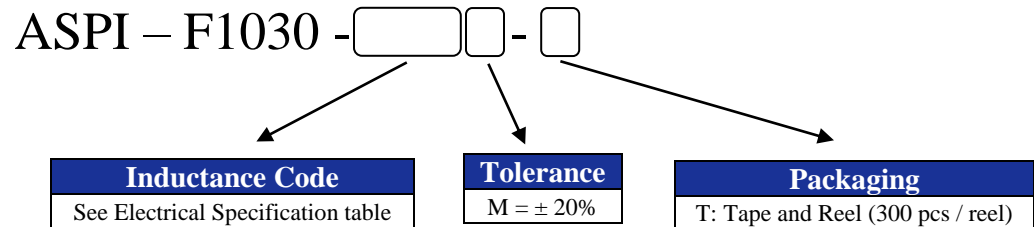


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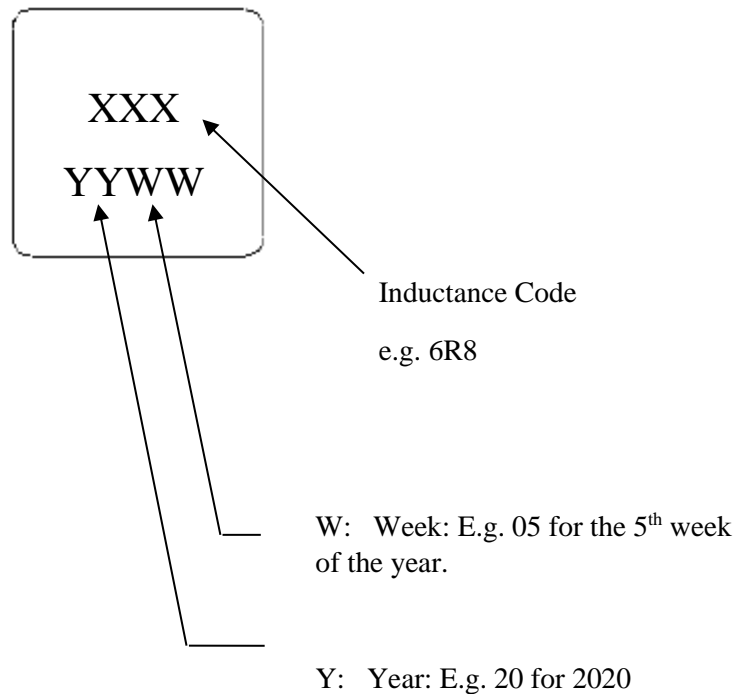


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## Part Number Identification



## Marking



Marking Method = Ink Marking



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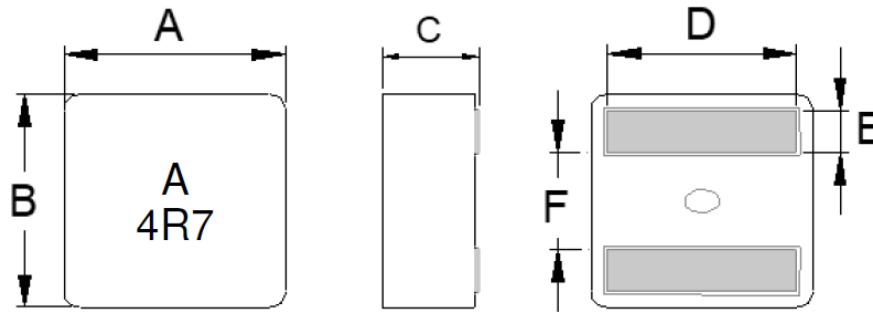


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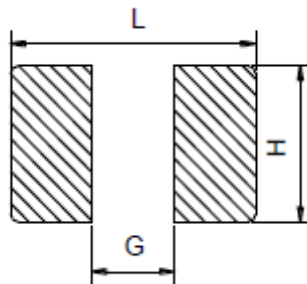


**11.9 x 11.0 x 9.7 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Mechanical Dimensions



Series	A	B	C	D	E	F
ASPI-F1010	11.9 ± 0.3	11.0 ± 0.3	9.7 ± 0.3	Refer to Electrical spec table	2.4 ± 0.2	4.4 ± 0.3



L	G	H
10.5 Ref.	3.7 Ref.	11.0 Ref.

Dimensions: mm

# Molded SMD Power Inductor



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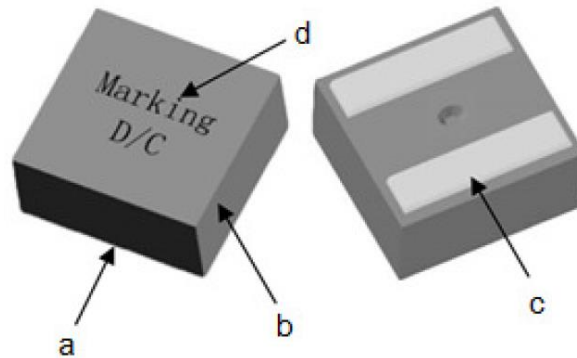


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11.9 x 11.0 x 9.7 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## 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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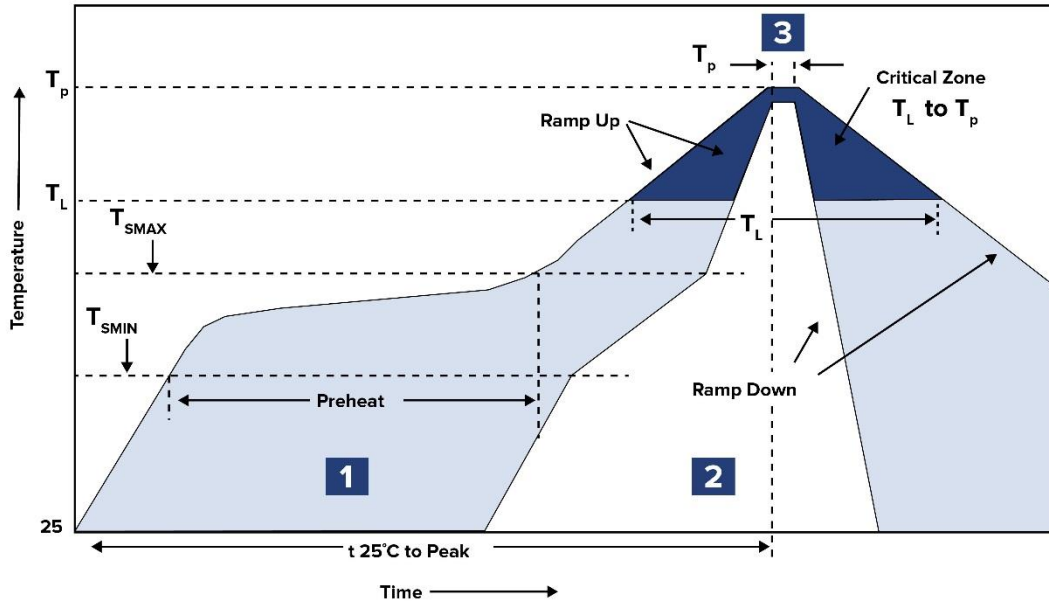


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## Reflow Profile



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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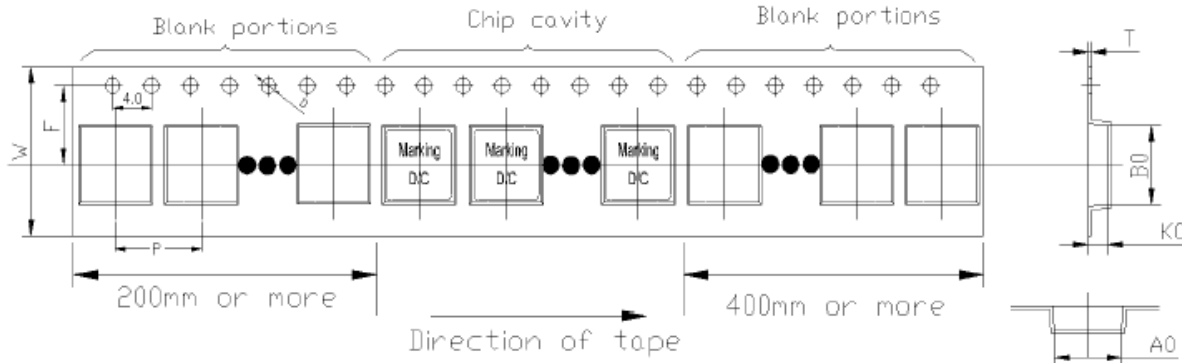
Check Inventory



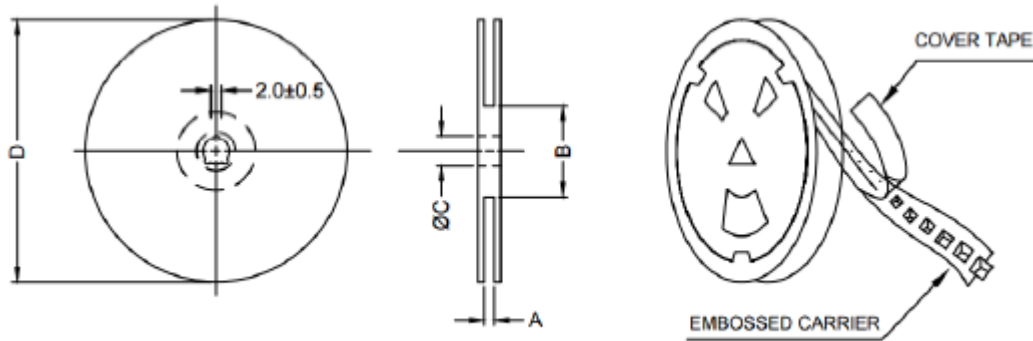
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## Packaging

**Tape & Reel: 300 pcs/reel**



W	F	P	D	A <sub>0</sub>	B <sub>0</sub>	T	K <sub>0</sub>
24.0±0.3	11.5±0.1	16.0±0.1	1.5±0.1	12.4±0.1	11.5±0.1	0.35±0.05	10.3±0.1



A	B	C	D
24.4+2/-0	100 ± 2	13.0+0.5/-0.2	330

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