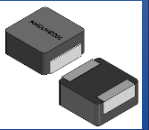


# Molded Inductor (Carbonyl)



**AMPLH5030S**

Request Samples



Check Inventory



5.7 x 5.3 x 2.8 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

- DC/DC Switching converters
- Power supplies for Notebooks, workstations, and Servers
- Low Profile applications
- High current, transient load applications

## Electrical Specifications

Part Number	Inductance	Tolerance	DC Resistance		Saturation Current	Temperature Rise Current
	0.1MHz/1.0V		Max.	Typ.	Typ.	Typ.
Units	μH	%	mΩ		A	A
Symbol	L	M	DCR		Isat	Irms
AMPLH5030S-R24M	0.24	±20	3.0	2.5	38.0	25.0
AMPLH5030S-R33M	0.33	±20	3.4	2.8	25.0	21.0
AMPLH5030S-R36M	0.36	±20	3.5	2.9	24.0	20.0
AMPLH5030S-R47M	0.47	±20	3.9	3.2	20.0	19.0
AMPLH5030S-R68M	0.68	±20	5.2	4.3	18.0	17.0
AMPLH5030S-1R0M	1.00	±20	6.7	5.6	16.0	15.0
AMPLH5030S-1R2M	1.20	±20	8.4	7.0	15.3	14.5
AMPLH5030S-1R5M	1.50	±20	10.0	8.3	15.0	14.0
AMPLH5030S-2R2M	2.20	±20	14.4	12.0	12.5	12.0
AMPLH5030S-3R3M	3.30	±20	21.0	17.5	10.5	10.0
AMPLH5030S-4R7M	4.70	±20	32.4	27.0	10.0	8.5
AMPLH5030S-5R6M	5.60	±20	44.4	37.0	8.0	7.2
AMPLH5030S-6R8M	6.80	±20	50.0	41.5	7.5	6.6
AMPLH5030S-8R2M	8.20	±20	62.4	52.0	7.3	5.8
AMPLH5030S-100M	10.00	±20	78.0	65.0	6.8	5.0
AMPLH5030S-150M	15.00	±20	118.0	98.0	3.7	3.5
AMPLH5030S-220M	22.00	±20	160.0	133.0	3.5	3.1

### Test Conditions

**Isat:** DC current at which the inductance drops 30% from its initial value.

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40°C) from 25°C ambient.

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

**Storage Condition:** -40°C ~ +125°C (on board), -10°C ~ +40°C (with packaging) and R.H. 85% max.

**Operating Voltage:** 50V (across inductor)

**AMPLH5030S Series is RoHS Compliant and Pb free.**

**For saturation and temperature rise graphs, please visit [Abracon | Power Inductor Performance Analyzer \(PIPA\)](#)**

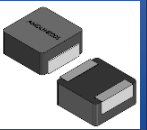


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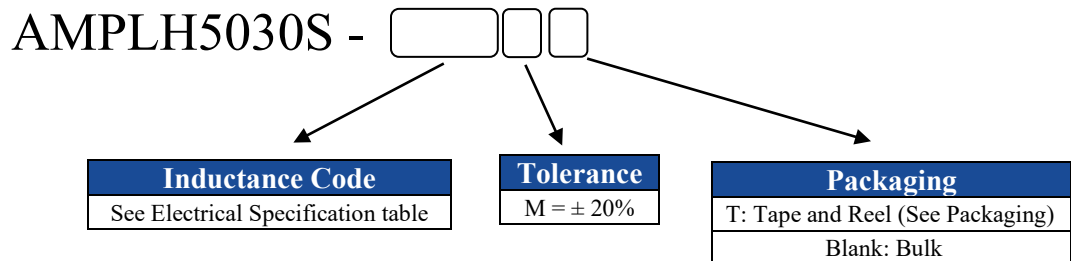


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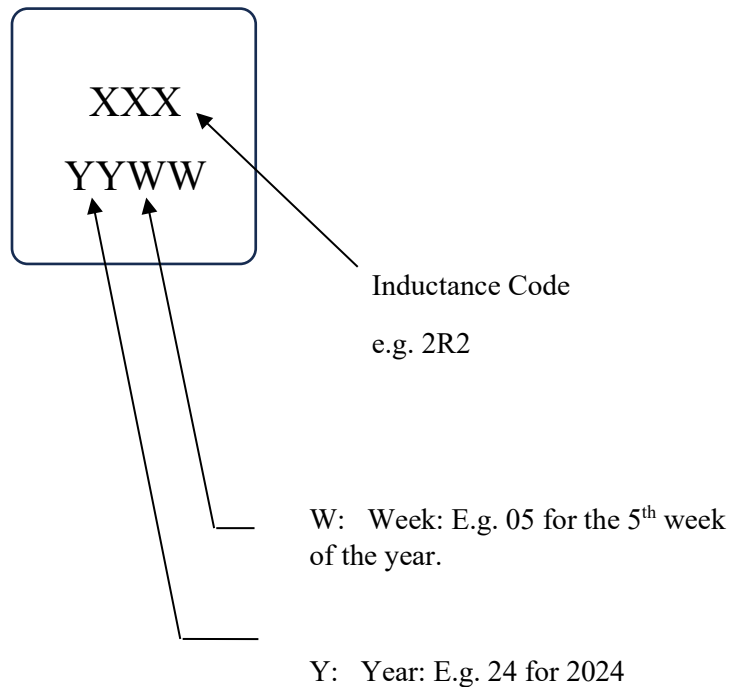


5.7 x 5.3 x 2.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Part Identification



## Marking



Marking Method = Ink Marking

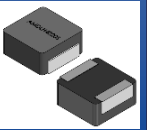


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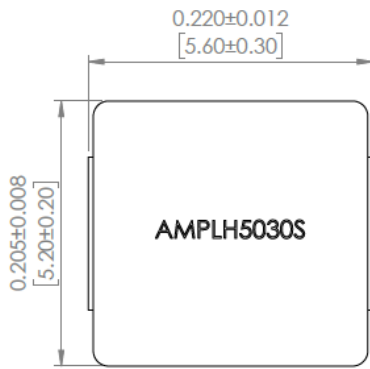


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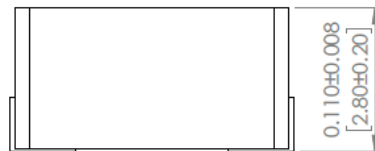


5.7 x 5.3 x 2.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

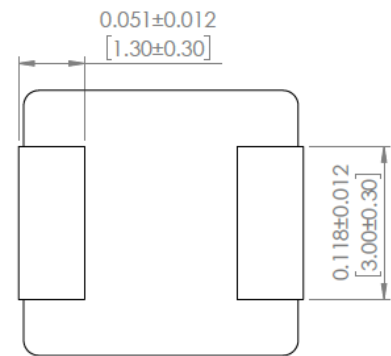
## Mechanical Specifications



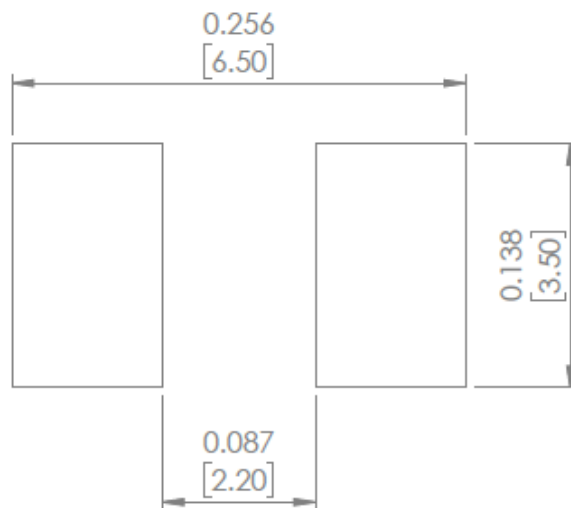
**TOP VIEW**



**FRONT VIEW**



**BOTTOM VIEW**



**RECOMMENDED LAND PATTERN**

Dimensions: Inches [mm]

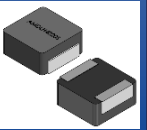


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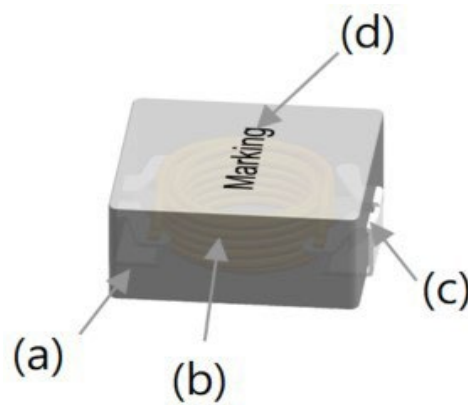


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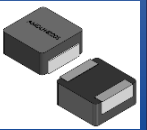
5.7 x 5.3 x 2.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Materials



	Components	Material
a	Core	Alloy Powder
b	Wire	Polyester Wire
c	Electrode	Cu/Ni/Sn
d	Marking	Ink

# Molded Inductor (Carbonyl)



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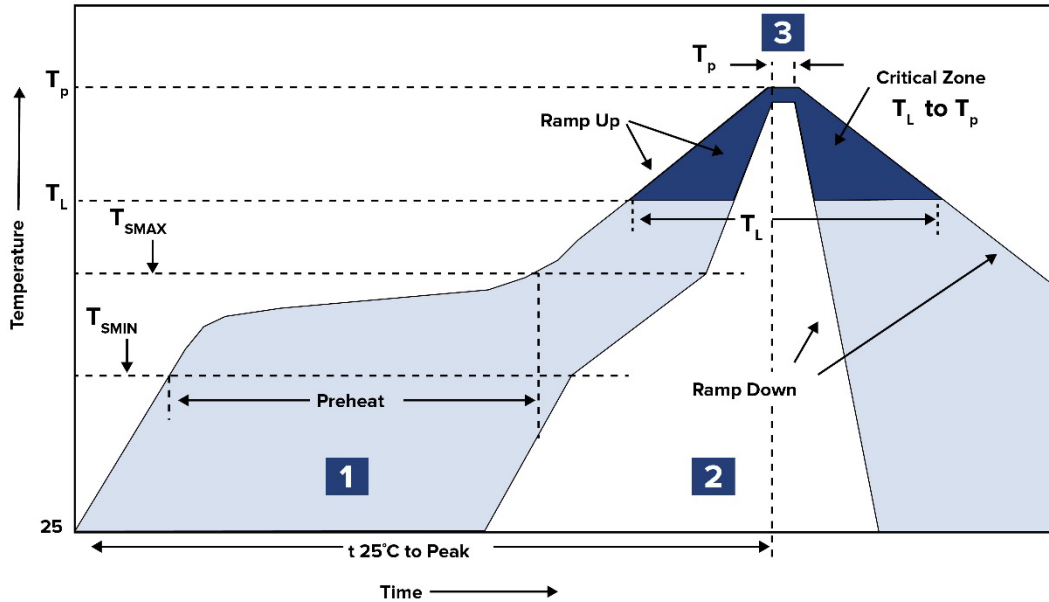


Check Inventory



5.7 x 5.3 x 2.8 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Reflow Profile



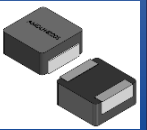
Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ $\geq 217^\circ\text{C}$	60 ~ 150 sec.
3	Peak heat	$T_P$ 260°C	30 sec. MAX

Time of 25°C to peak temperature: 8 mins Max

Ramp up rate: 3°C/Second max.

Ramp down rate: 6°C/Second max.

# Molded Inductor (Carbonyl)



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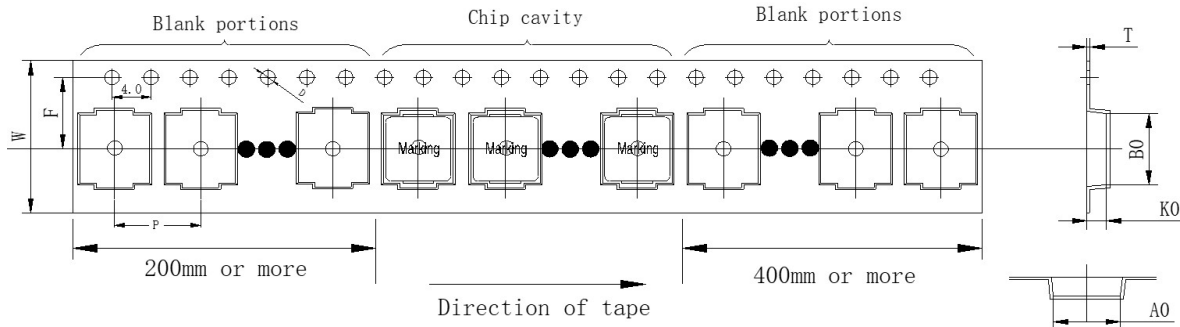
Check Inventory



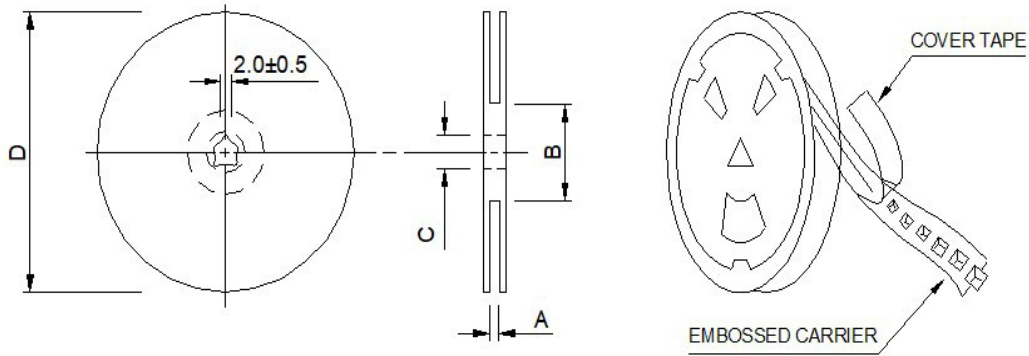
**5.7 x 5.3 x 2.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**Tape & Reel: 2000 pcs/reel**



A0	B0	W	F	P	D	K0	T
5.70±0.10	6.50±0.10	12.00±0.3	5.5±0.1	8.00±0.10	1.5±0.1	3.30±0.10	0.35±0.05



Type	A	B	C	D
13" x 12mm	12.4+2.0/-0.0	100.0±2.0	13.0+0.5/-0.2	330.0±0.3

**Dimensions: mm**

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