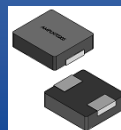


Molded Inductor (Carbonyl)



AMPLH7020S

Request Samples



Check Inventory



7.3 x 6.6 x 1.8 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	μ H	%	m Ω		A	A
Symbol	L	M	DCR		Isat	Irms
AMPLH7020S-R20M	0.20	± 20	2.2	1.8	38.0	23.0
AMPLH7020S-R33M	0.33	± 20	2.9	2.4	28.0	20.0
AMPLH7020S-R47M	0.47	± 20	4.9	4.1	23.0	17.0
AMPLH7020S-R68M	0.68	± 20	5.5	4.6	21.0	16.0
AMPLH7020S-1R0M	1.00	± 20	8.4	7.0	15.0	12.0
AMPLH7020S-1R5M	1.50	± 20	16.2	13.5	12.0	11.0
AMPLH7020S-2R2M	2.20	± 20	25.2	21.0	9.5	9.0
AMPLH7020S-3R3M	3.30	± 20	34.8	29.0	8.0	7.5
AMPLH7020S-4R7M	4.70	± 20	45.6	38.0	7.0	6.5
AMPLH7020S-5R6M	5.60	± 20	50.4	42.0	6.5	6.0
AMPLH7020S-6R8M	6.80	± 20	64.0	56.0	6.0	5.3
AMPLH7020S-8R2M	8.20	± 20	77.1	67.0	5.2	4.8
AMPLH7020S-100M	10.00	± 20	90.0	80.0	4.8	4.3
AMPLH7020S-120M	12.00	± 20	104.0	87.0	4.3	3.7

Test Conditions

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

Irms: DC current that causes the temperature rise (ΔT , 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)

AMPLH7020S Series is RoHS Compliant and Pb free.

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

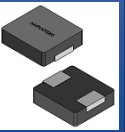


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Molded Inductor (Carbonyl)



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MSL Level = 1

Part Identification

AMPLH7020S -



Inductance Code

See Electrical Specification table

Tolerance

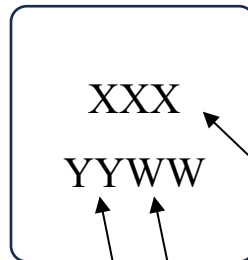
M = $\pm 20\%$

Packaging

T: Tape and Reel (See Packaging)

Blank: Bulk

Marking



Inductance Code

e.g. 2R2

W: Week: E.g. 05 for the 5th week of the year.

Y: Year: E.g. 24 for 2024

Marking Method = Ink Marking

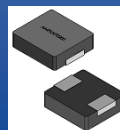


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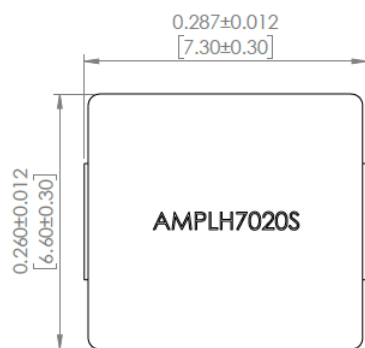


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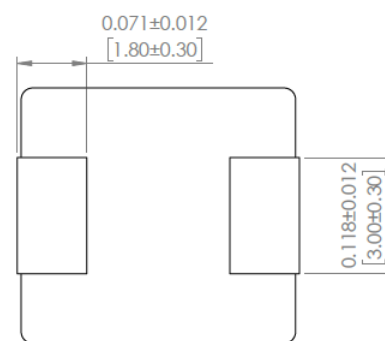
Mechanical Specifications



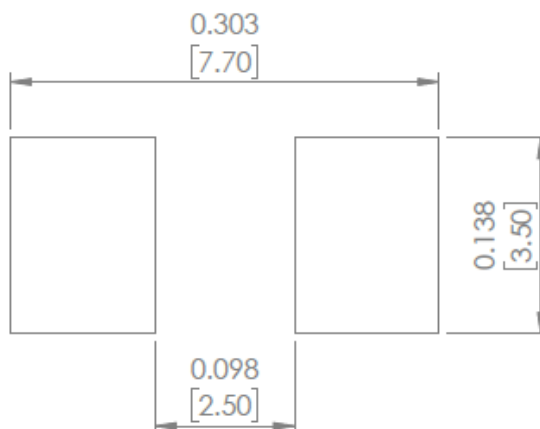
TOP VIEW



FRONT VIEW



BOTTOM VIEW



RECOMMENDED LAND PATTERN

Dimensions: Inches [mm]

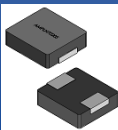


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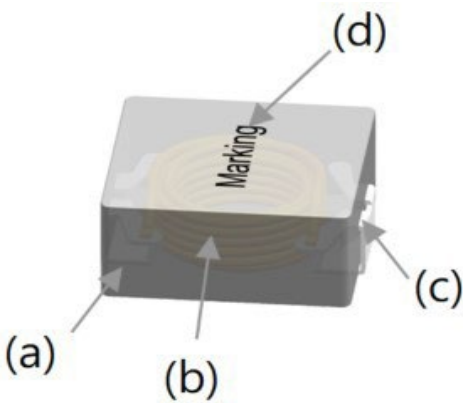


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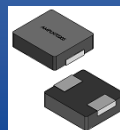
7.3 x 6.6 x 1.8 mm
RoHS/RoHS II Compliant
MSL Level = 1

Materials



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

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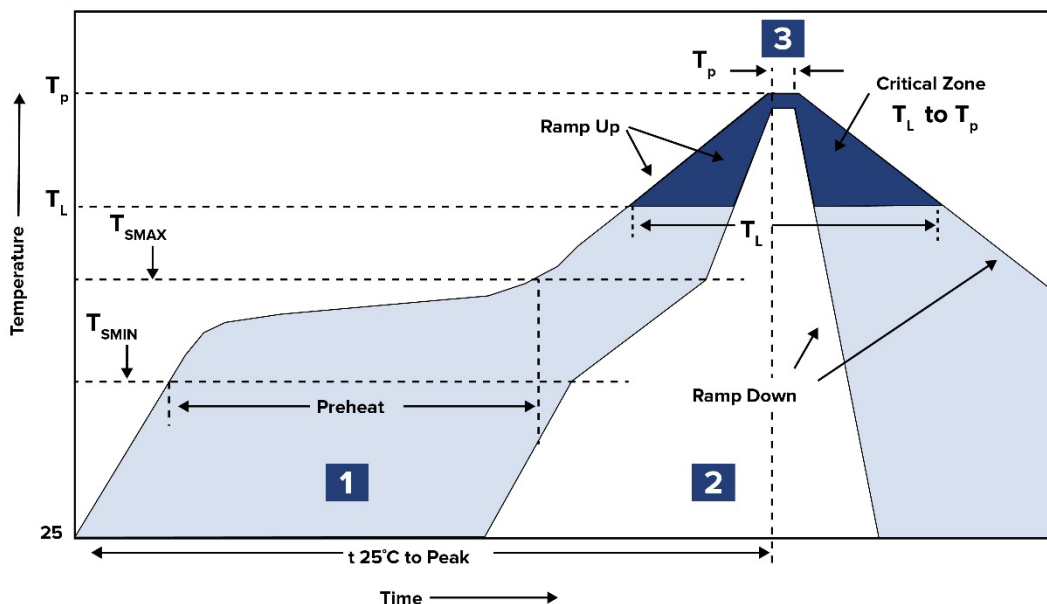


Check Inventory



7.3 x 6.6 x 1.8 mm
RoHS/RoHS II Compliant
MSL Level = 1

Reflow Profile



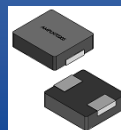
Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L $\geq 217^\circ\text{C}$	60 ~ 150 sec.
3	Peak heat	T_P 260°C	30 sec. MAX

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)



AMPLH7020S

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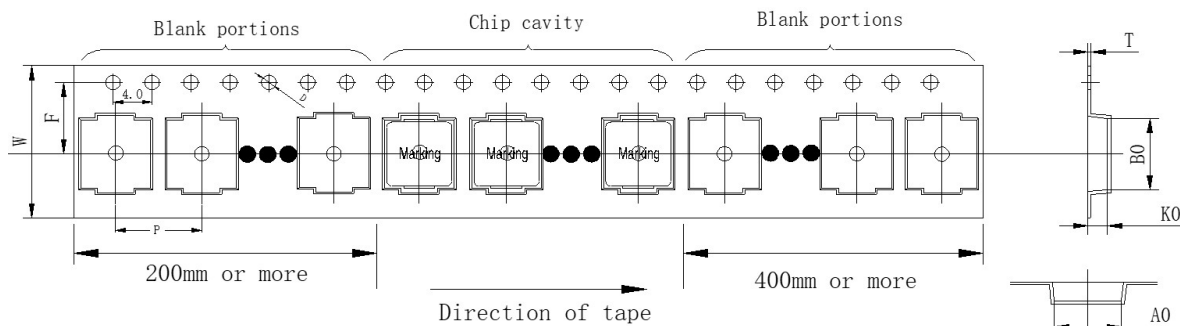
Check Inventory



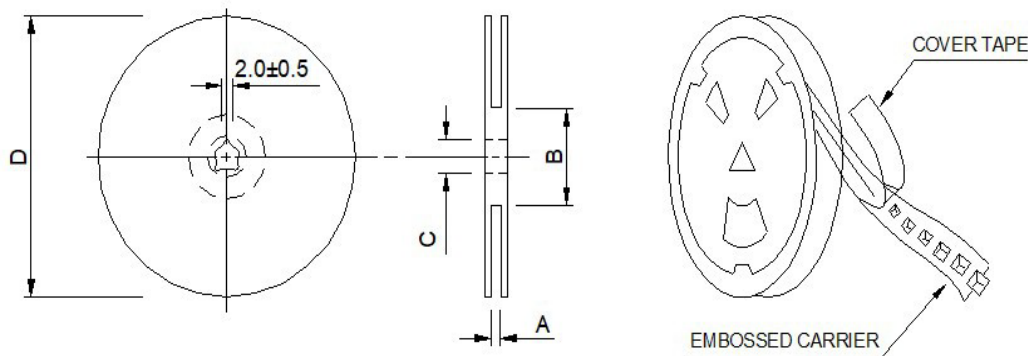
7.3 x 6.6 x 1.8 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel: 2000 pcs/reel



A0	B0	W	F	P	D	K0	T
7.10 Ref	8.10 Ref	16.00±0.30	5.50±0.10	12.00±0.10	1.50±0.10	2.20 Ref	0.35±0.05



Type	A	B	C	D
13" x 16mm	16.4+2.0/-0.0	100.0±2.0	13.0+0.5/-0.2	330.0±0.3

Dimensions: mm

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