

Molded Inductor (Metal Alloy)



AMDLH4020S

Request Samples



Check Inventory



4.2 x 4.1 x 1.9 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
AMDLH4020S-R10M	0.10	± 20	2.0	1.6	26.0	24.0
AMDLH4020S-R15M	0.15	± 20	3.5	2.9	22.0	18.0
AMDLH4020S-R22M	0.22	± 20	4.9	4.1	16.0	16.0
AMDLH4020S-R33M	0.33	± 20	5.8	4.8	13.5	15.0
AMDLH4020S-R47M	0.47	± 20	7.0	6.0	11.0	13.0
AMDLH4020S-R68M	0.68	± 20	8.8	7.6	9.5	11.0
AMDLH4020S-1R0M	1.00	± 20	11.0	9.5	8.0	10.0
AMDLH4020S-1R5M	1.50	± 20	16.0	14.0	6.8	8.5
AMDLH4020S-2R2M	2.20	± 20	23.0	20.9	5.5	7.5
AMDLH4020S-3R3M	3.30	± 20	45.6	38.0	5.0	5.6
AMDLH4020S-4R7M	4.70	± 20	64.8	54.0	4.2	4.5
AMDLH4020S-5R6M	5.60	± 20	75.6	63.0	3.5	4.1
AMDLH4020S-6R8M	6.80	± 20	92.5	80.5	3.1	3.5
AMDLH4020S-8R2M	8.20	± 20	118.5	103.0	2.9	3.2
AMDLH4020S-100M	10.00	± 20	132.0	115.0	2.7	2.8

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)

AMDLH4020S Series is **RoHS Compliant and Pb free.**

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

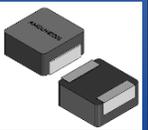


5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release :
2/28/2024

ABRACON IS
ISO9001-2015
CERTIFIED

Molded Inductor (Metal Alloy)



AMDLH4020S

Request Samples

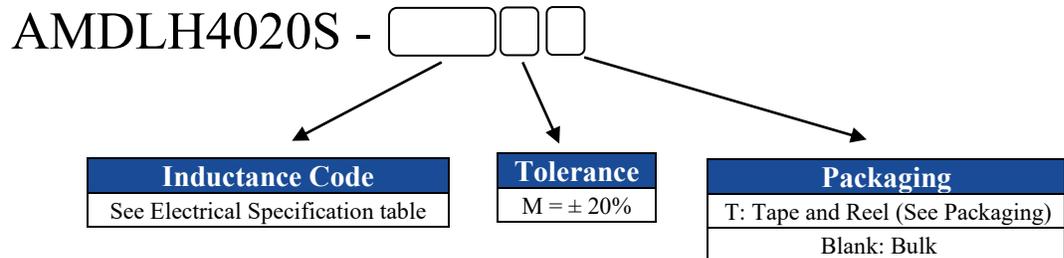


Check Inventory

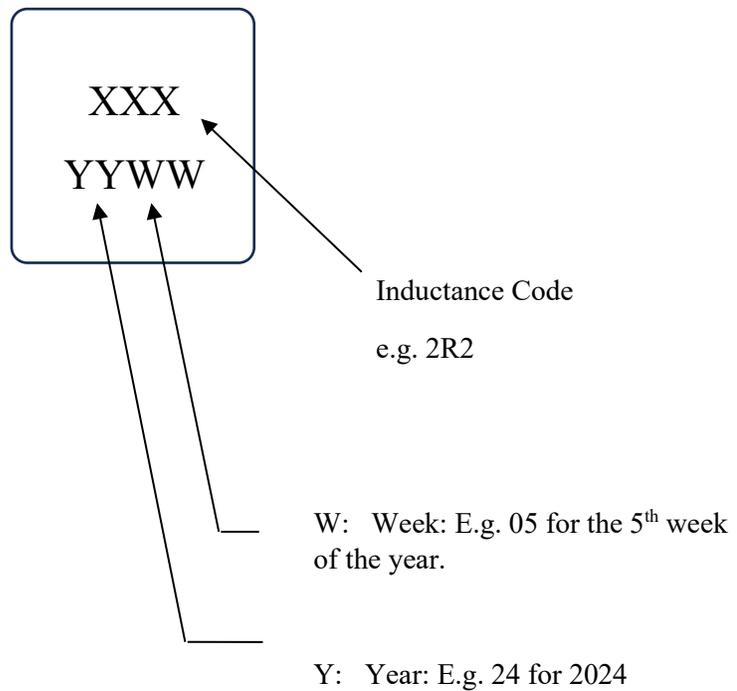


4.2 x 4.1 x 1.9 mm
RoHS/RoHS II Compliant
MSL Level = 1

Part Identification



Marking



Marking Method = Ink Marking



5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release :
2/28/2024

ABRACON IS
ISO9001-2015
CERTIFIED

Molded Inductor (Metal Alloy)



AMDLH4020S

Request Samples

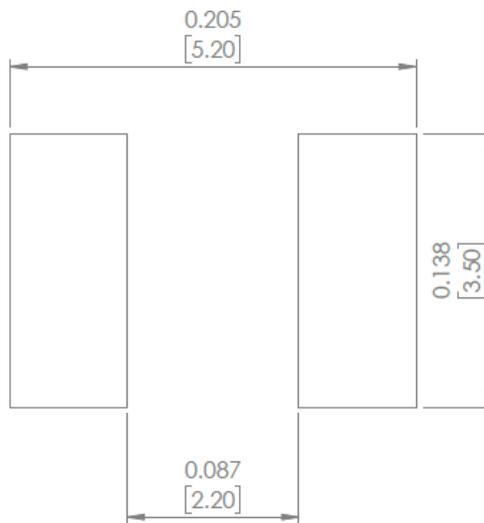
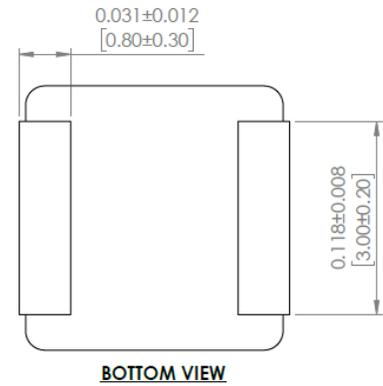
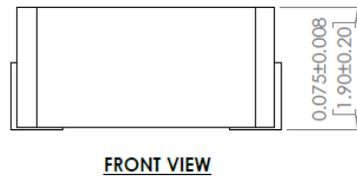
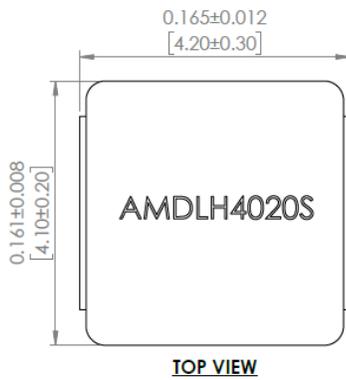


Check Inventory



4.2 x 4.1 x 1.9 mm
RoHS/RoHS II Compliant
MSL Level = 1

Mechanical Specifications



RECOMMENDED LAND PATTERN

Dimensions: Inches [mm]



5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release :
2/28/2024

ABRACON IS
ISO9001-2015
CERTIFIED

Molded Inductor (Metal Alloy)



AMDLH4020S

Request Samples

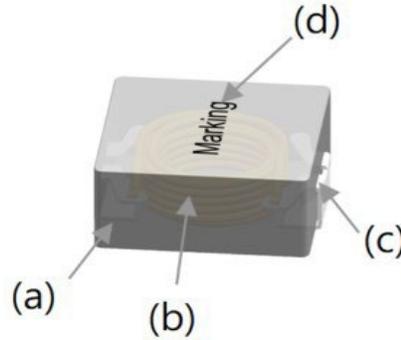


Check Inventory



4.2 x 4.1 x 1.9 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 (Metal Alloy)



AMDLH4020S

Request Samples

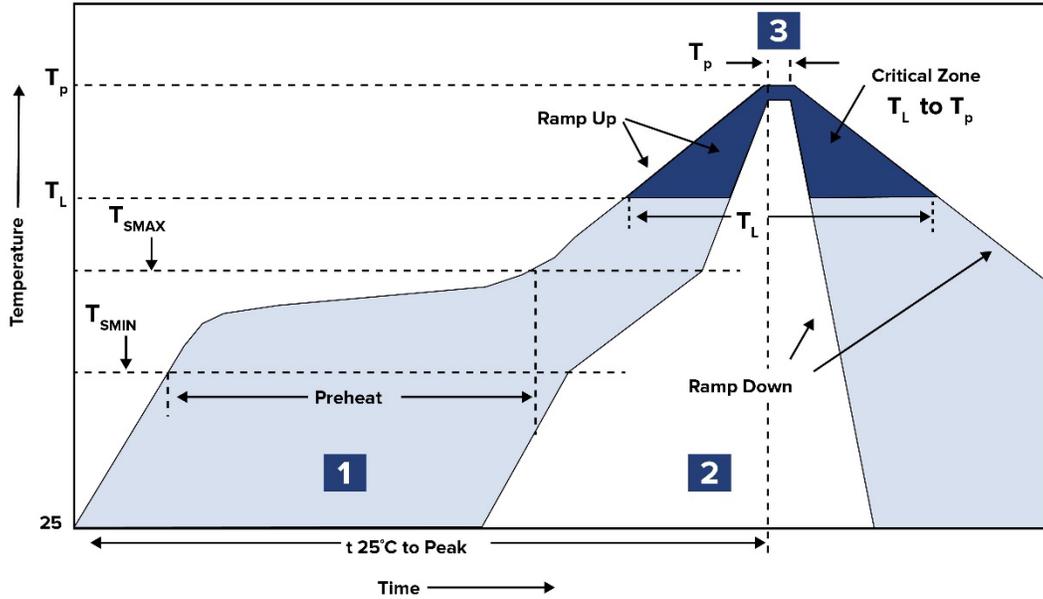


Check Inventory



4.2 x 4.1 x 1.9 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 (Metal Alloy)



AMDLH4020S

Request Samples



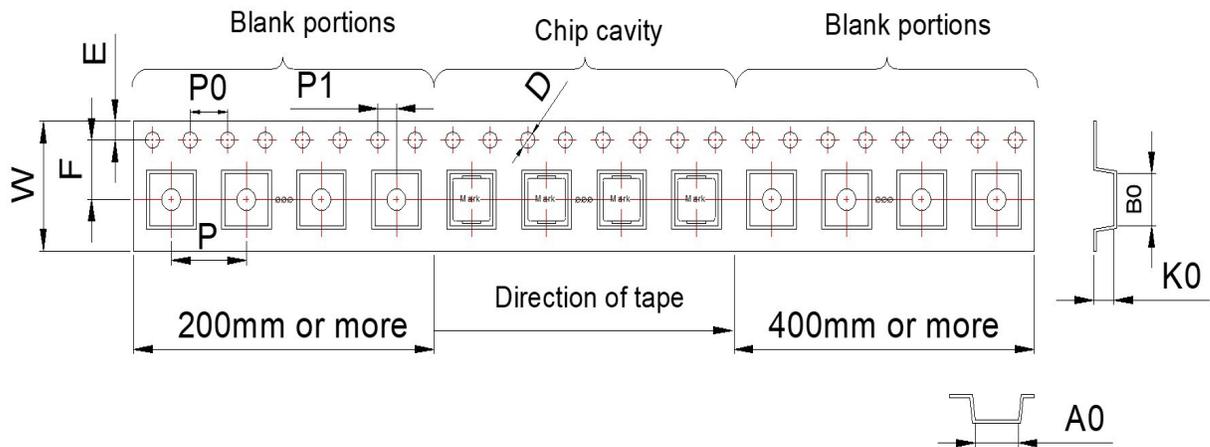
Check Inventory



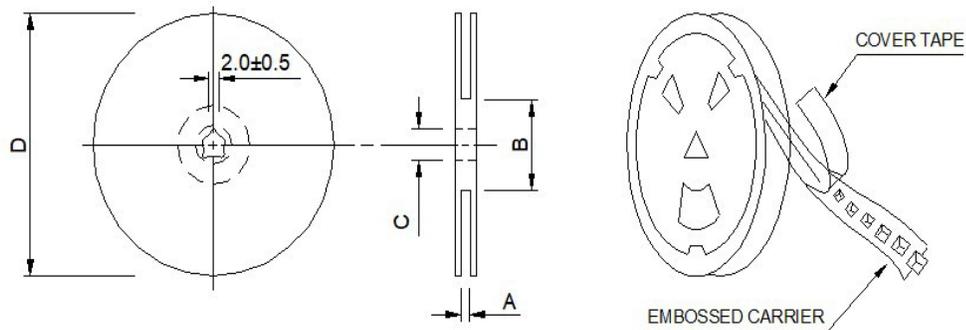
4.2 x 4.1 x 1.9 mm
RoHS/RoHS II Compliant
 MSL Level = 1

Packaging

Tape & Reel: 3000 pcs/reel



A0	B0	W	E	F	P	P0	P1	D	F	K0	E
4.4±0.1	5.1±0.1	12±0.3	1.75±0.1	5.5±0.1	8±0.1	4.0±0.1	2±0.1	1.5±0.1	5.5±0.1	2.4±0.1	1.75±0.1



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

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln, Spicewood TX 78669
 Phone: 512-371-6159 Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release :
 2/28/2024

ABRACON IS
 ISO9001-2015
 CERTIFIED