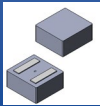


# Flat Wire / Hot Pressed Molded Power Inductor



**AMELH1060S**

Request Samples



Check Inventory



**11.90 x 11.00x 5.7 mm**  
**RoHS/RoHS II Compliant**  
MSL Level = 1

## Features

- Excellent current capacity – up to 48A
- Exceptionally low DCR – down to only 1.7mΩ
- Soft saturation
- Compact size for high-density designs
- Shielded constructions for low EMI

## Applications

- Body electronics
- Lighting
- Motor control
- Solar inverters and solar power
- DC/DC converters in distributed power systems
- Battery powered device

## Electrical Specifications

Part Number	Inductance	Tolerance	DC Resistance		Saturation Current		Temperature Rise Current		Self-Resonant Frequency
	0.1MHz/1.0V		Typ	Max	Typ	Max	Typ	Max	Min
Units	μH	%	mΩ		A		A		MHz
Symbol	L	M	DCR		Isat		Irms		SRF
AMELH1060S-1R0MT	1.0	20	1.7	2.0	48.0	44.0	40.0	35.0	25
AMELH1060S-1R2MT	1.2	20	1.9	2.3	42.0	37.0	35.0	30.0	32
AMELH1060S-1R5MT	1.5	20	2.2	2.6	40.0	35.0	32.0	28.0	30
AMELH1060S-1R8MT	1.8	20	2.5	2.9	35.0	31.0	29.0	25.0	26
AMELH1060S-2R2MT	2.2	20	3.4	3.9	33.0	29.0	27.0	23.0	25
AMELH1060S-2R7MT	2.7	20	3.7	4.3	30.0	27.0	25.0	22.0	22
AMELH1060S-3R3MT	3.3	20	4.3	5.0	27.0	24.0	23.0	20.0	18
AMELH1060S-4R7MT	4.7	20	6.5	7.5	23.0	20.0	19.0	16.5	16
AMELH1060S-5R6MT	5.6	20	7.3	8.4	20.0	18.0	17.5	15.5	13
AMELH1060S-6R8MT	6.8	20	8.8	10.1	19.0	17.0	15.5	13.5	13
AMELH1060S-8R2MT	8.2	20	10.3	11.9	17.5	15.5	14.5	12.5	12
AMELH1060S-100MT	10.0	20	12.8	14.8	15.5	13.5	13.0	11.0	10

### Test Conditions:

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

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

**Operating Voltage:** 40V

**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.

**AMELH1060S Series is RoHS Compliant and Pb free.**

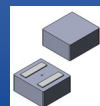


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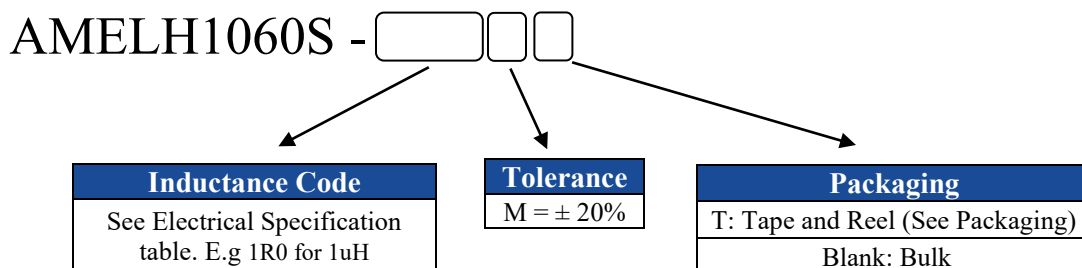


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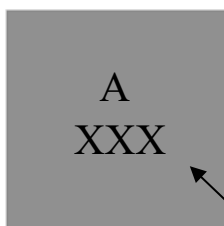


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**RoHS/RoHS II Compliant**  
MSL Level = 1

## Part Identification



## Marking



Inductance Code  
e.g. "2R2" for 2.2uH

**Marking Method = Ink Marking**

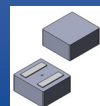


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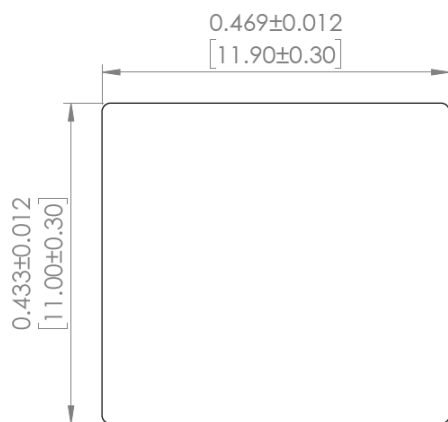


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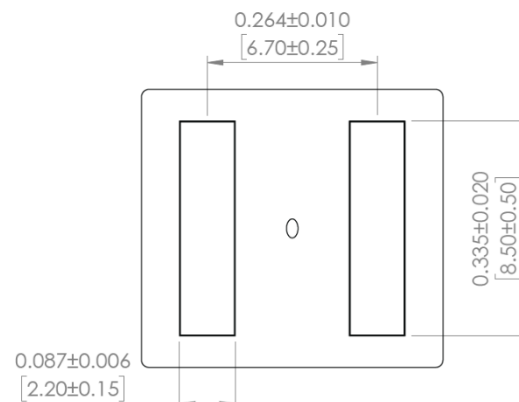


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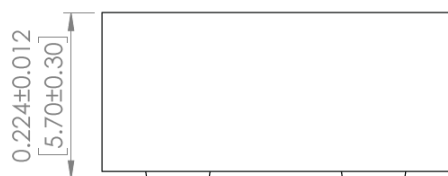
## Mechanical Specifications



**TOP VIEW**

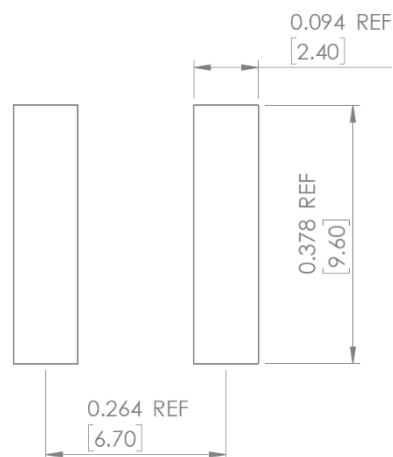


**BOTTOM VIEW**



**FRONT VIEW**

## RECOMMENDED LAND PATTERN



### NOTES:

The above PCB layout reference only.  
Recommending solder paste thickness at .005[0.15] and above.  
Inductance code markings, black.

**DIMENSIONS: INCHES[mm]**

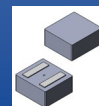


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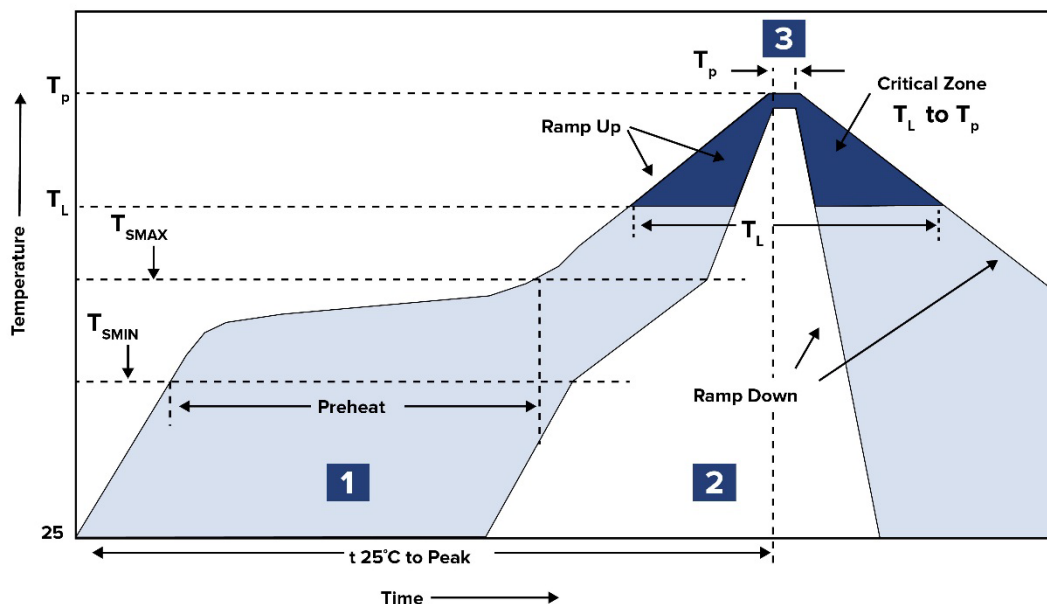


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## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_p$ 250°C±5°C	10 sec. MAX

Ref. Solder paste: Sn/3.0Ag/0.5Cu (Pb-free assembly)

Ramp up rate: 3°C/s Max.

Ramp down rate: 6°C/s Max.

Time from 25C to  $T_p$ : 8mins Max

Refer to standard IPC/JEDEC J-STD-020E for more information

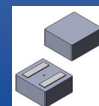


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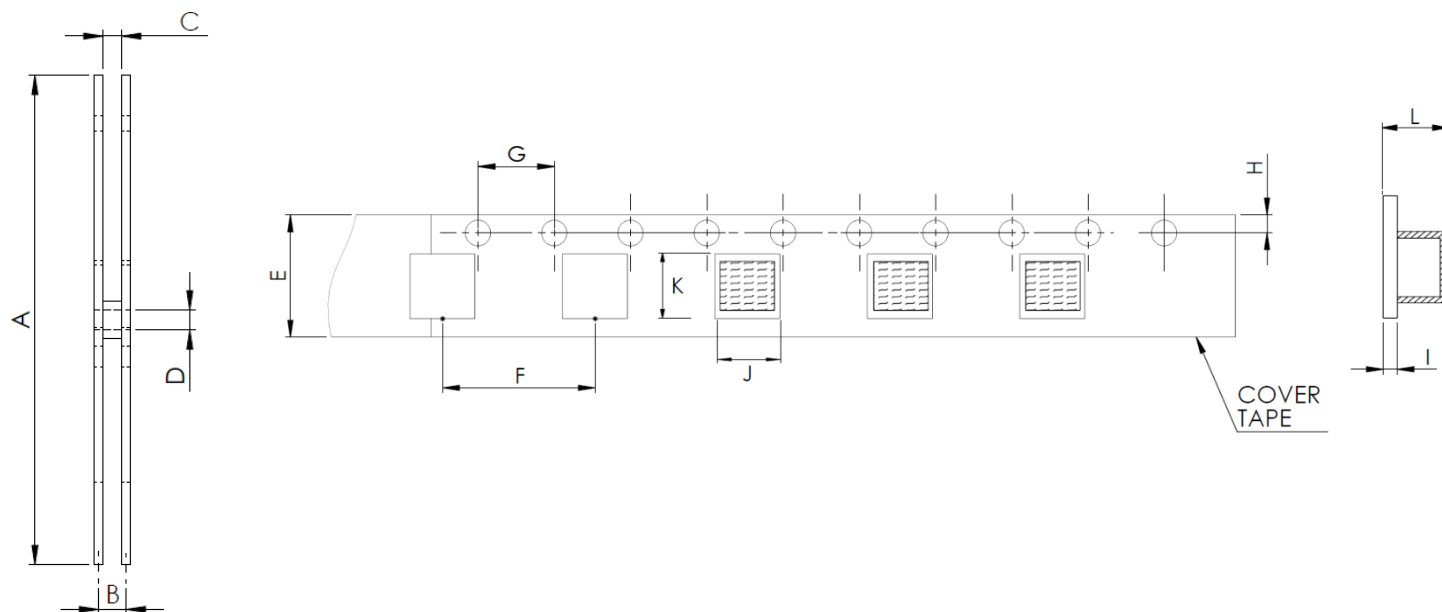
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**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**T: Tape & Reel, 500 pcs/reel**



A	B	D	E	F	G	H	I	J	K	L
330.0	24.4±2	13.0±0.5	24.0±0.3	16.0±0.1	4.0±0.1	1.75±0.1	0.35±0.1	11.5 Ref.	12.4 Ref.	6.30 Ref.

**Dimensions: mm**

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