



AMXLA-Q1040

Request Samples



Check Inventory



11.0 x 10.0 x 3.8 mm  
 RoHS/RoHS II Compliant  
 MSL Level = 1

### Features

- PPAP ready and supported
- TS16949 certified production lines
- AEC-Q200 qualified (-55°C ~ +180°C)
- Shielded construction
- Soft saturation
- Low DCR, High Efficiency

### 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
	0.1MHz/1.0V		Max	Max	Max
Units	μH	%	mΩ	A	A
Symbol	L	M	DCR	Isat	Irms
AMXLA-Q1040-1R0M	1.00	20	3.07	26.0	24.0
AMXLA-Q1040-1R5M	1.50	20	4.50	24.0	19.0
AMXLA-Q1040-2R2M	2.20	20	7.20	18.0	15.0
AMXLA-Q1040-3R3M	3.30	20	11.8	16.0	12.0
AMXLA-Q1040-4R7M	4.70	20	15.3	13.0	10.0
AMXLA-Q1040-5R6M	5.60	20	17.5	11.0	9.6
AMXLA-Q1040-6R8M	6.80	20	22.3	10.0	9.0
AMXLA-Q1040-100M	10.0	20	33.0	8.0	7.0
AMXLA-Q1040-150M	15.0	20	50.0	6.5	6.0
AMXLA-Q1040-220M	22.0	20	72.0	5.7	5.0
AMXLA-Q1040-330M	33.0	20	117.7	4.5	4.2
AMXLA-Q1040-470M	47.0	20	167.0	4.0	3.4
AMXLA-Q1040-680M	68.0	20	240.0	2.8	3.0

### 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 25°C ambient

**Operating Temperature:** -55°C ~ +180°C (including self-temperature rise)

**Storage Condition:** -40°C ~ +85°C (on board), -10°C ~ +40°C (with packaging) and R.H. 60 max

**Operating Voltage:** 40V (across inductor)

**AMXLA-Q1040 Series is RoHS Compliant and Pb free**

**AMXLA-Q1040 is AEC-Q200 qualified (-55°C ~ +180°C)**



**AMXLA-Q1040**

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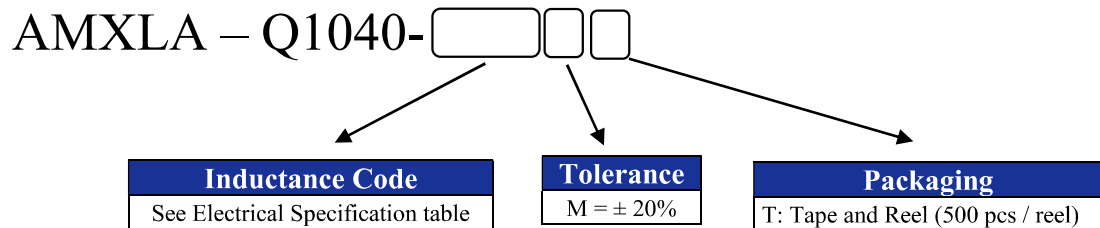


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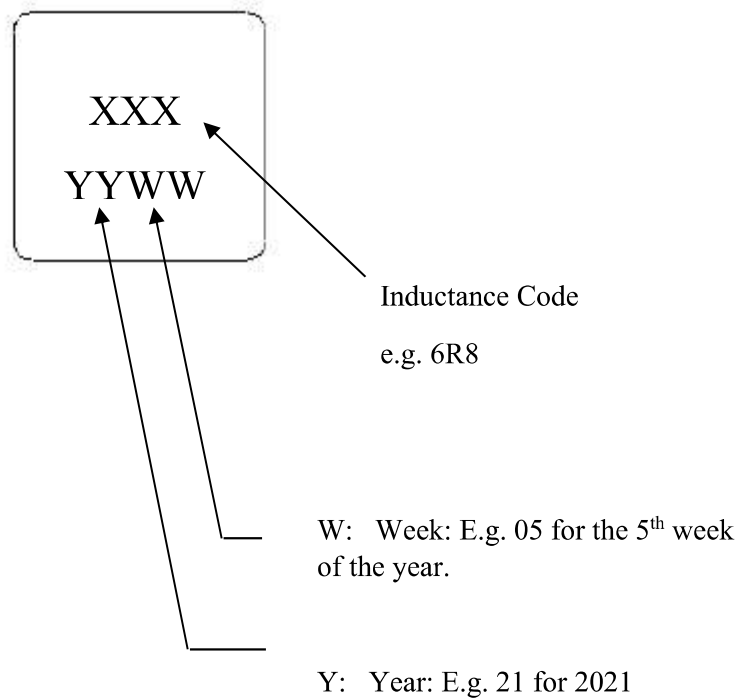


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MSL Level = 1

## Part Number Identification



## Marking



**Marking Method = Ink Marking**



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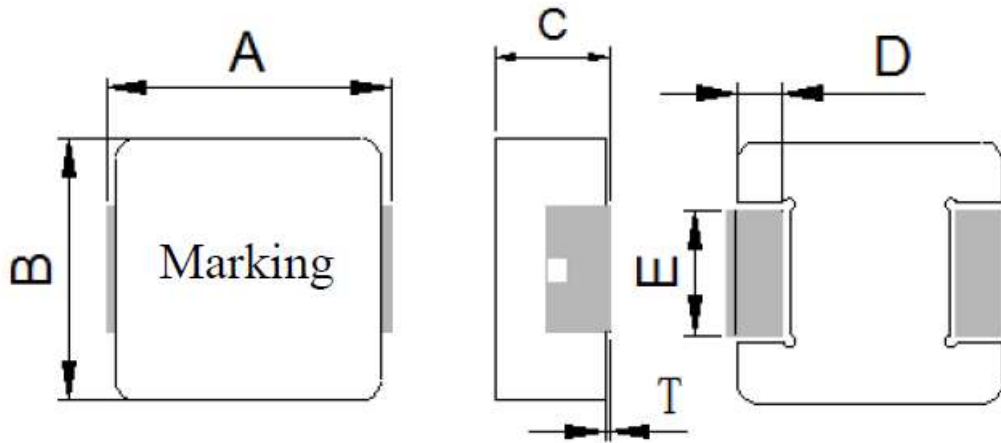


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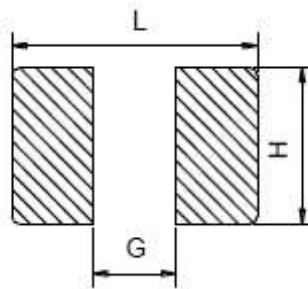


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Mechanical Dimensions



Series	A	B	C	D	E	T
AMXLA-Q1040	11.0 ± 0.3	10.0 ± 0.3	3.8 ± 0.2	2.0 ± 0.3	3.0 ± 0.3	0~0.2



L	G	H
12.5 Ref.	5.4 Ref.	3.5 Ref.

Dimensions: mm



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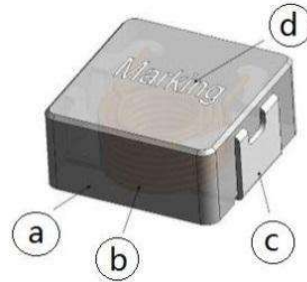


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## Materials



	Components	Material
a	<b>Core</b>	<b>Alloy powder</b>
b	<b>Wire</b>	<b>220 deg. C Flat Wire</b>
c	<b>Solder</b>	<b>100% Pb free solder</b>
d	<b>Ink</b>	<b>Halogen-free ketone</b>



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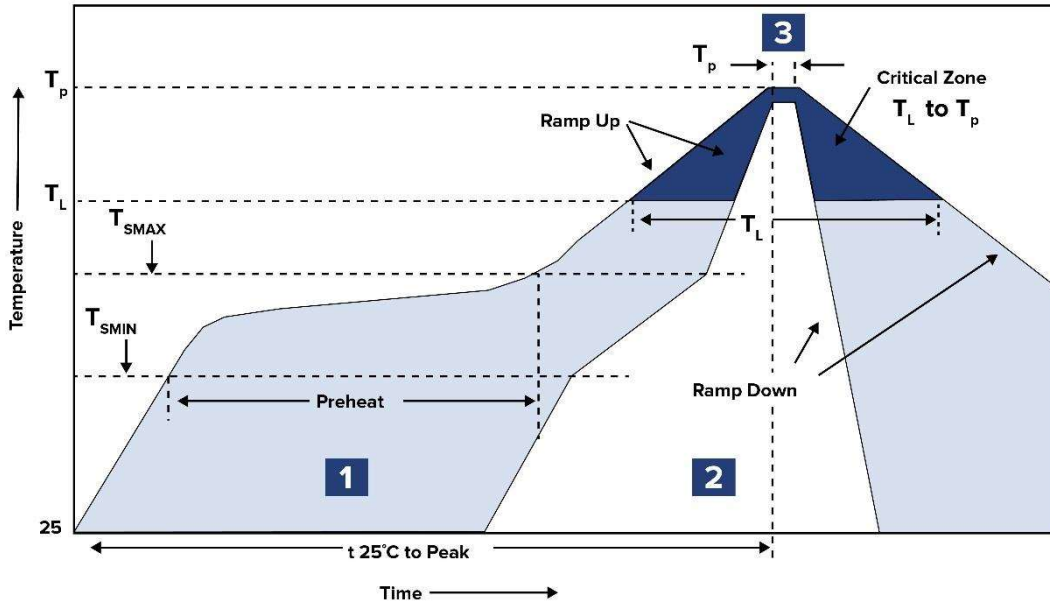


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Reflow Profile



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	$T_P$ 260°C	10 sec. MAX

# Molded SMD Power Inductor

# Extended Temperature



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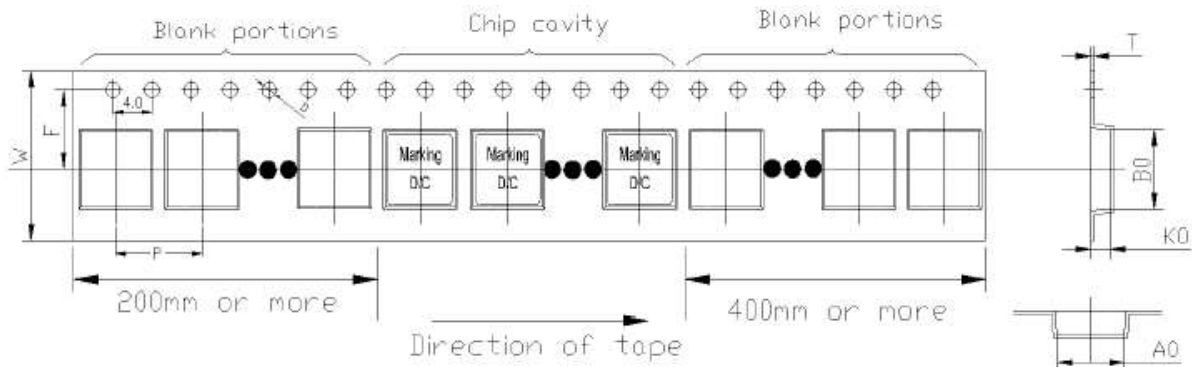
Check Inventory



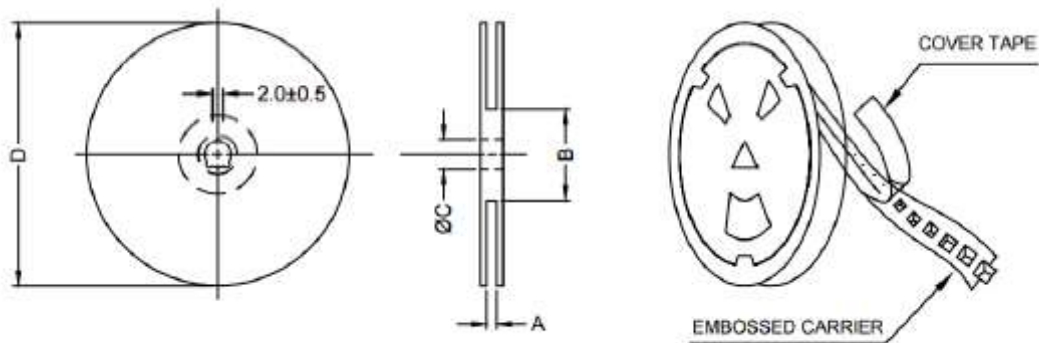
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## Packaging

**Tape & Reel: 500 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	10.4 ± 0.1	11.6 ± 0.1	0.35 ± 0.05	4.5 ± 0.1



A	B	C	D
24.4 + 2/-0	100 ± 2	13.5 + 0.5/-0.2	330

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**REVISED: 07-16-21**

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## AMXLA-Q1040

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- iii) In no case shall ABRACON be liable for any product failure from in appropriate handling or operation of the item beyond the scope of this specification.
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## AMXLA-Q1040

are ready for shipment. Any unpaid due amounts will be subject to interest at one decimal five percent (1.5%) per month, or, if less, the maximum rate allowed by law.

4. **Delivery and Shipment:** Shipment dates are estimates only. Failure to deliver by a specified date shall neither entitle Buyer to any compensation nor impose any liability on AB. AB reserves the right to ship and bill ten percent more or less than the exact quantity specified on the face hereof. All shipments will be made Ex Works as per Incoterms 2000 from AB's place of shipment. In the absence of specific instructions, AB will select the carrier. Claims against AB for shortages must be made in writing within ten (10) days after the arrival of the shipment. AB is not required to notify Buyer of the shipment. Buyer shall pay all freight charges, insurance and other shipping expenses. Freight charges, insurance and other shipping expenses itemized in advance of actual shipment, if any, are estimates only that are calculated on the basis of standard tariffs and may not reflect actual costs. Buyer must pay actual costs.
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