



**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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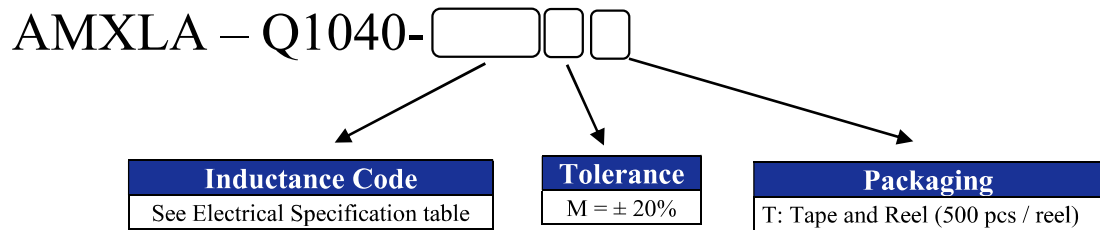


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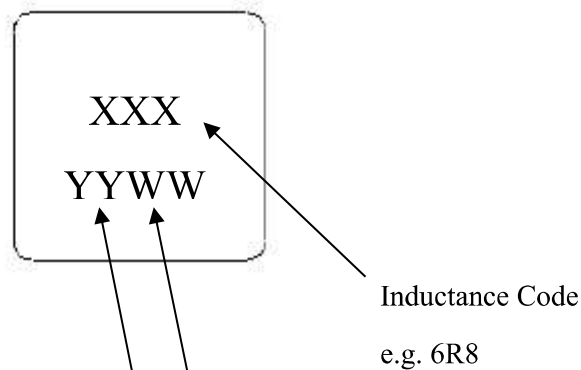


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Part Number Identification



Marking



W: Week: E.g. 05 for the 5<sup>th</sup> week of the year.

Y: Year: E.g. 21 for 2021

Marking Method = Ink Marking



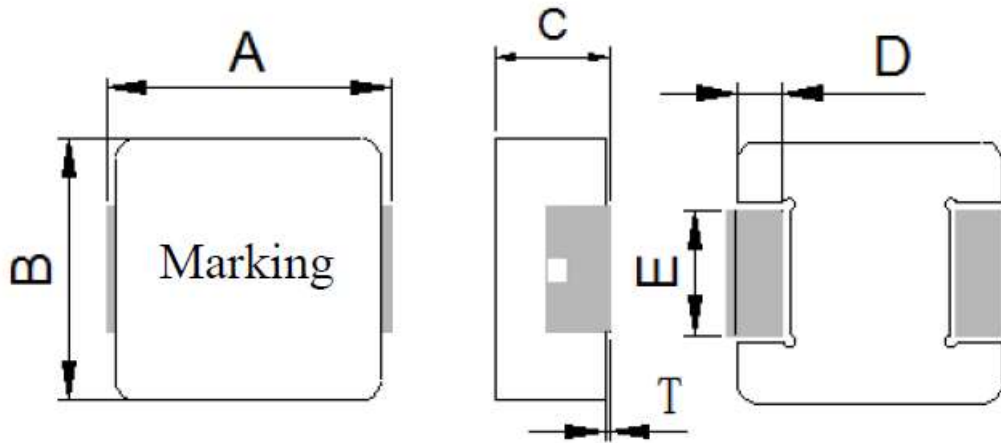
AMXLA-Q1040

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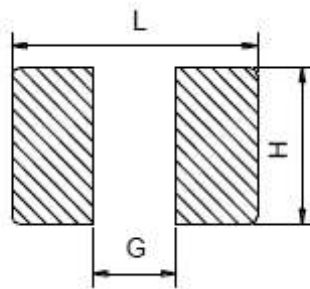
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Mechanical Dimensions



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



**AMXLA-Q1040**

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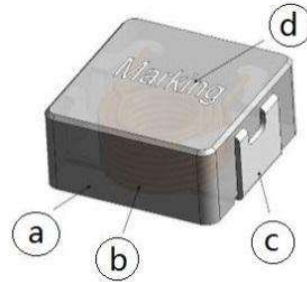


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**RoHS/RoHS II Compliant**  
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## Materials



	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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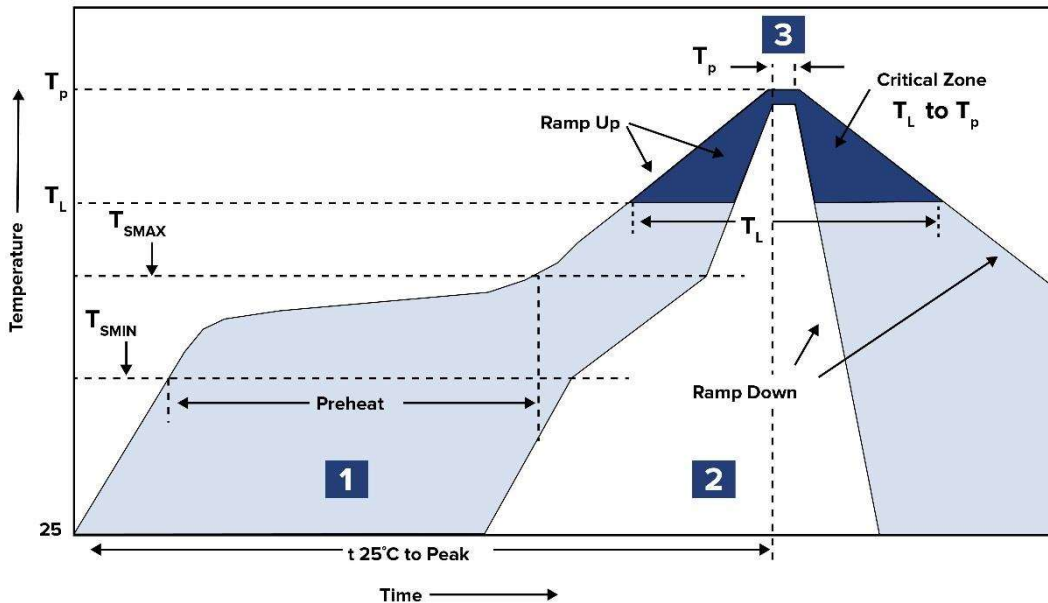


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## Reflow Profile



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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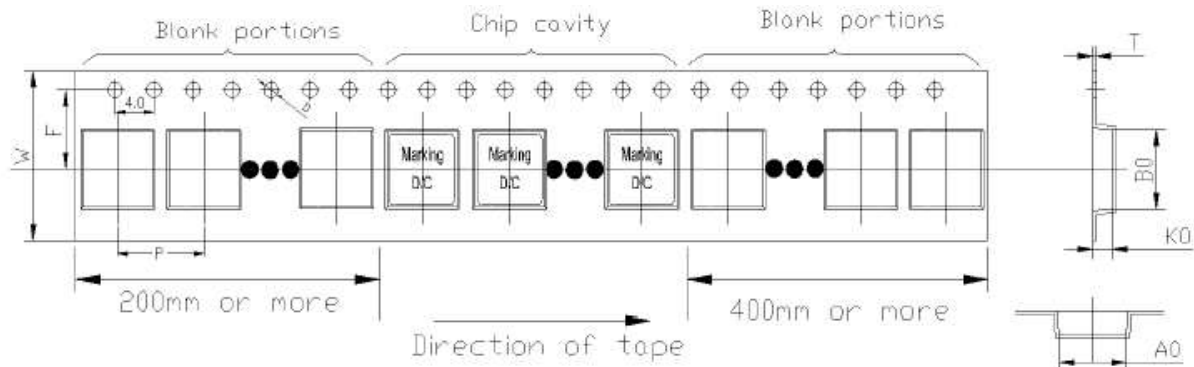
Check Inventory



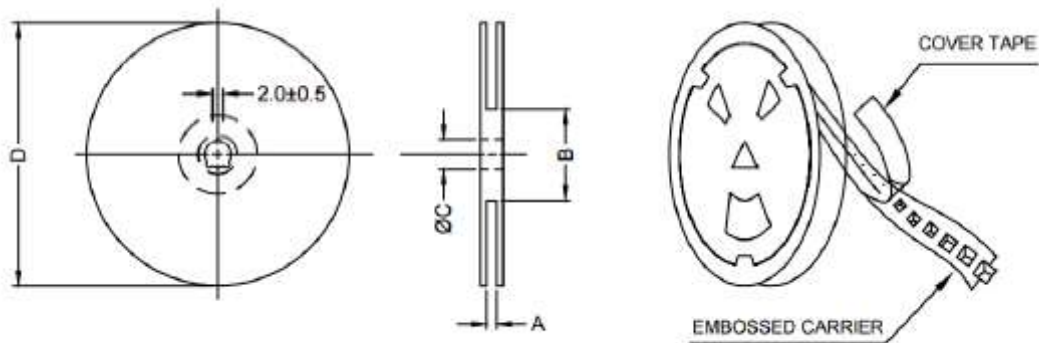
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## Packaging

**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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