

Molded SMD Power Inductor Extended Temperature



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 by 30%.

Irms: DC current that causes the temperature rise (ΔT , approximate 40 °C) from 25°C ambient.

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

Storage Condition: -55°C ~ +180°C (on board), -10°C ~ +40°C (with packaging) and R.H. 60 max.

Operating Voltage: 75V (across inductor)

AMXLA-Q1040 Series is RoHS Compliant and Pb free.

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



5101 Hidden Creek Ln Spicewood TX 78669
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Rev A REVISED: 06-13-25

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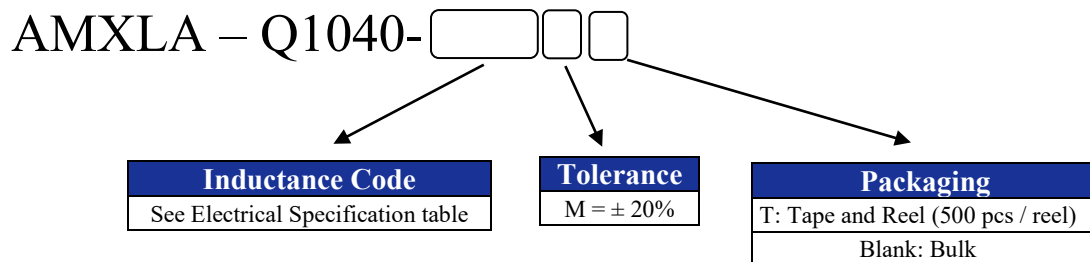


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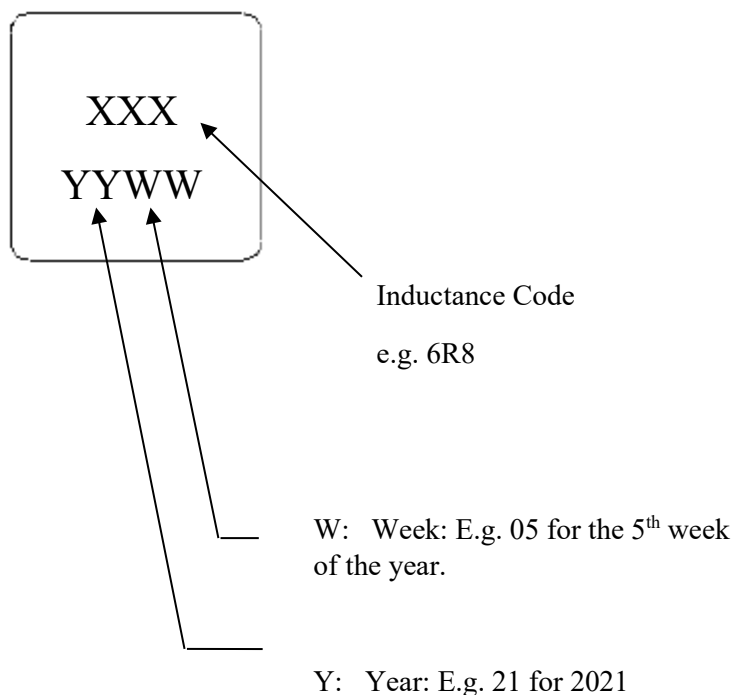


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Part Number Identification



Marking



Marking Method = Ink Marking

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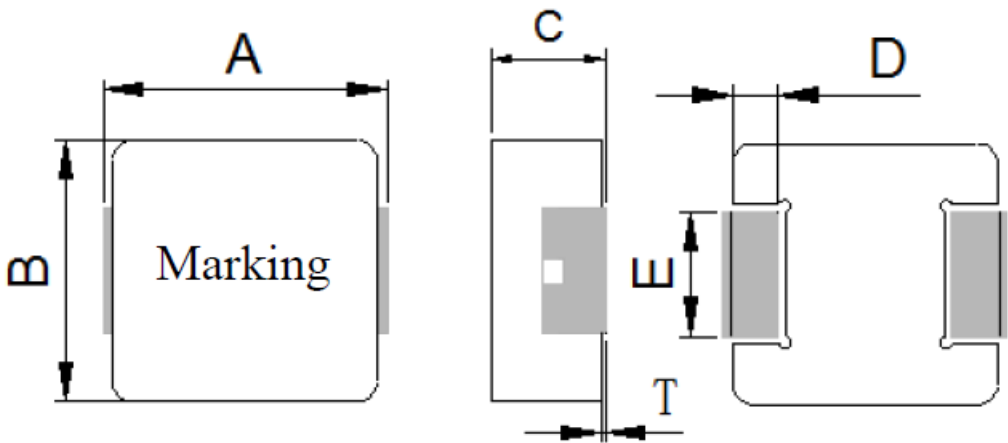


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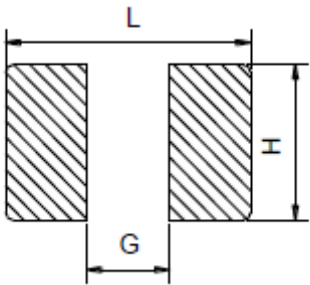


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Mechanical Dimensions



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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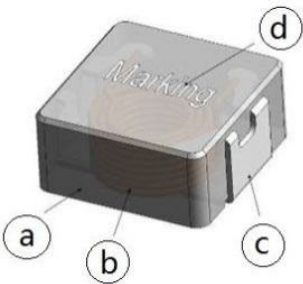


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Materials



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



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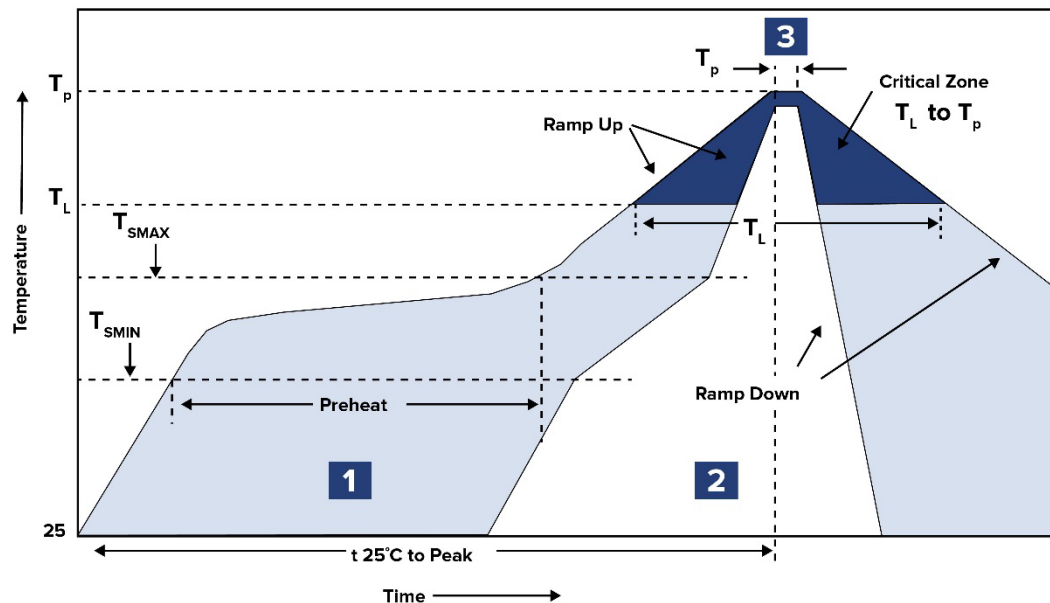


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Reflow Profile



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

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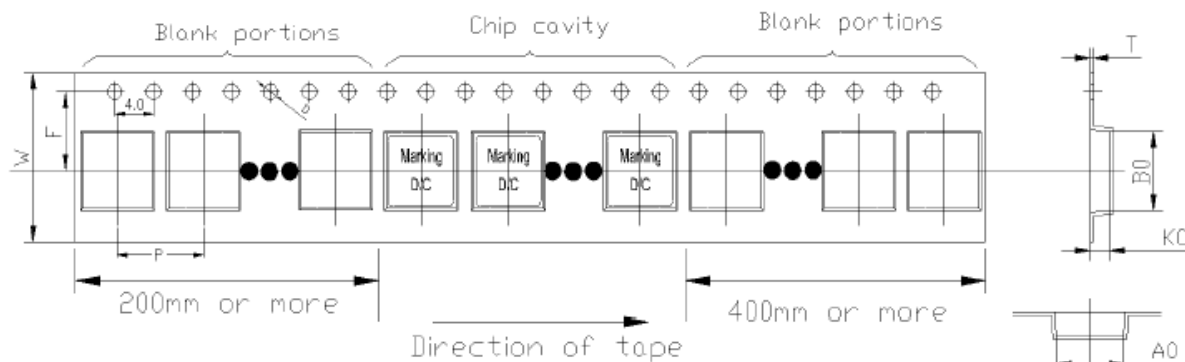
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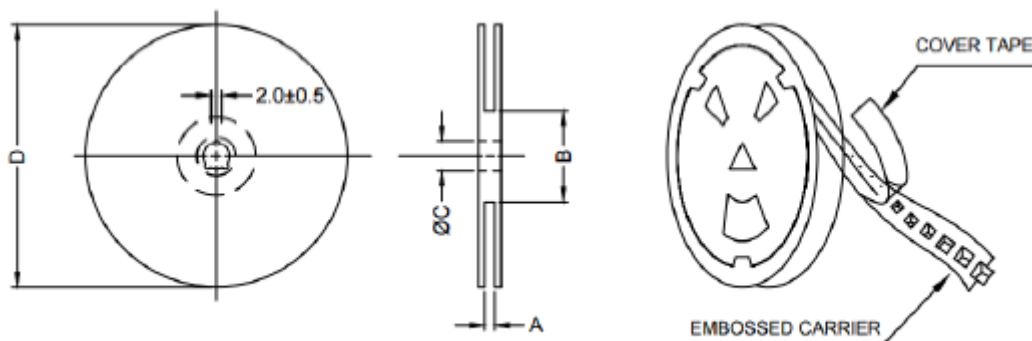
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Packaging

Tape & Reel: 500 pcs/reel



W	F	P	D	A ₀	B ₀	T	K ₀
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

Dimensions: mm

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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