



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 (ΔT , 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)



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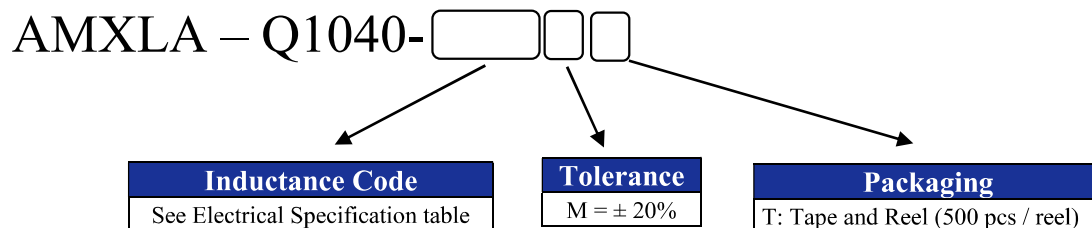


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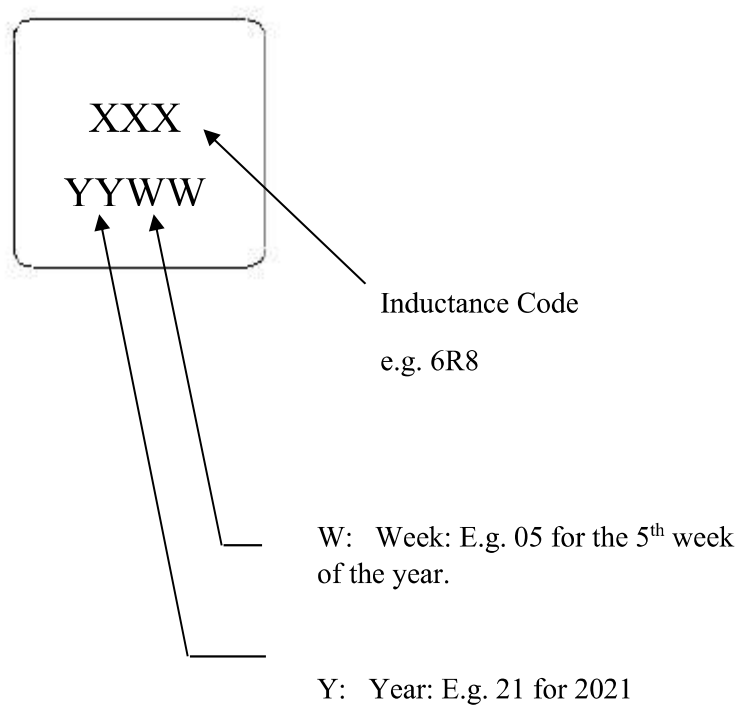


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Part Number Identification



Marking



Marking Method = Ink Marking



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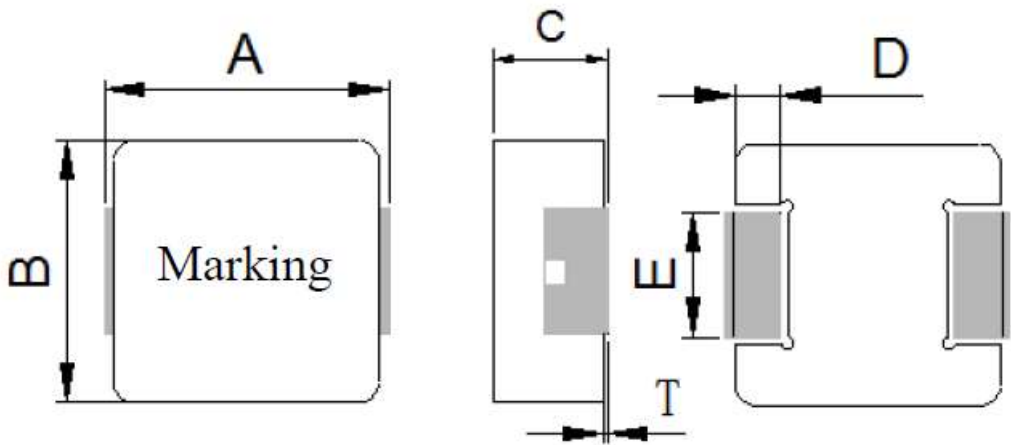


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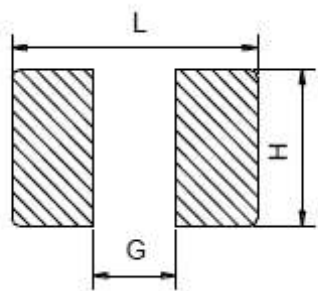


11.0 x 10.0 x 3.8 mm
RoHS/RoHS II Compliant
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Mechanical Dimensions



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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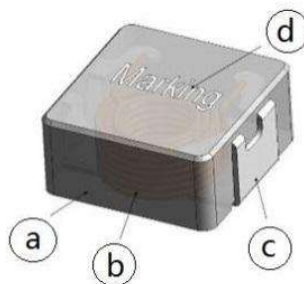


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RoHS/RoHS II Compliant
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Materials



	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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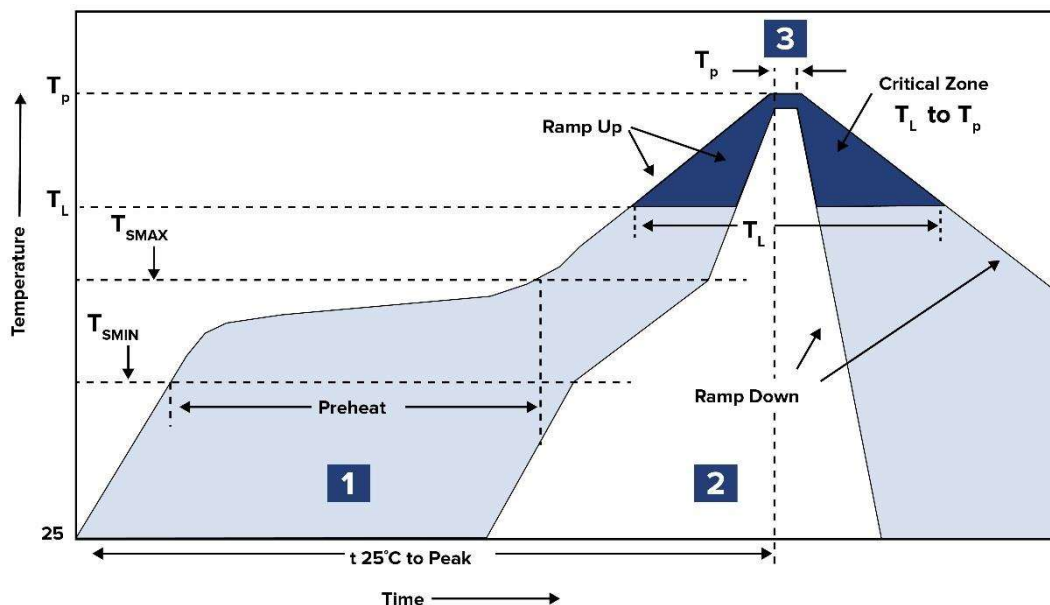


Check Inventory



11.0 x 10.0 x 3.8 mm
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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

**AMXLA-Q1040**

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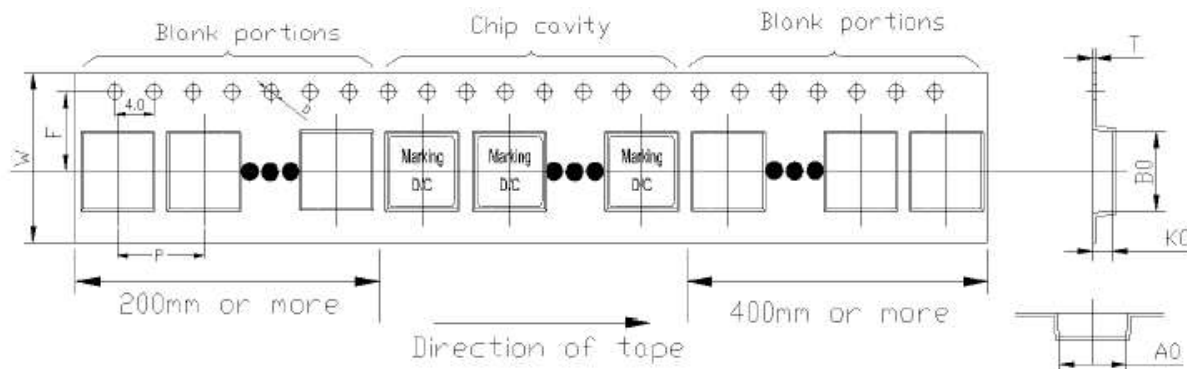
Check Inventory



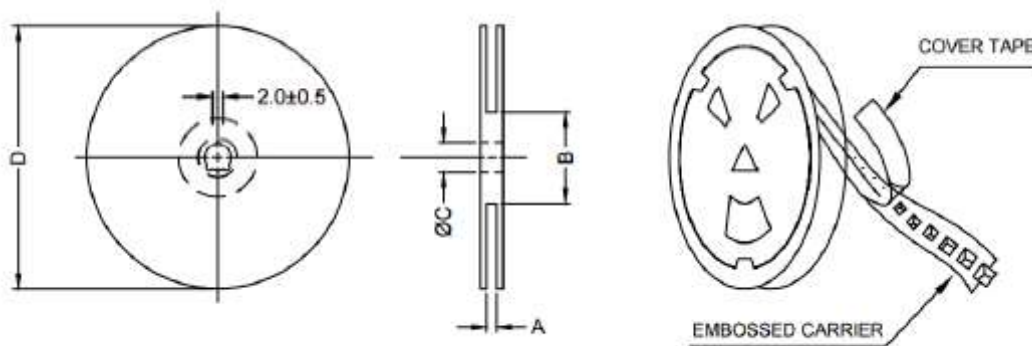
11.0 x 10.0 x 3.8 mm
RoHS/RoHS II Compliant
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Packaging

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

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.

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1.0 Note

- i) The parts are manufactured in accordance with this specification. If other conditions and specifications which are required for this specification, please contact ABRACON for more information.
- ii) ABRACON will supply the parts in accordance with this specification unless we receive a written request to modify prior to an order placement.
- 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.
- iv) When changing your production process, please notify ABRACON immediately.
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2.0 ABRACON LLC - TERMS & CONDITION OF SALE

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- 1. **Prices:** Prices shown on the face hereof are in US dollars, with delivery terms specified herein and are exclusive of any other charges including, without limitation, fees for export, special packaging, freight, insurance and similar charges. AB reserves the right to increase the price of Products by written notice to Buyer at least thirty (30) days prior to the original date of shipment. When quantity price discounts are quoted by AB, the discounts are computed separately for each type of product to be sold and are based upon the quantity of each type and each size ordered at any one time. If any discounted order is reduced by Buyer with AB's consent, the prices shall be adjusted to the higher prices, if applicable, for the remaining order.
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- 3. **Payment Terms:** For each shipment, AB will invoice Buyer for the price of the Products plus all applicable taxes, packaging, transportation, insurance and other charges. Unless otherwise stated in a separate agreement or in AB's quotation, payments are due within thirty (30) days from the date of invoice, subject to AB's approval of Buyer's credit application. All invoicing disputes must be submitted in writing to AB within ten (10) days of the receipt of the invoice accompanied by a reasonably detailed explanation of the dispute. Payment of the undisputed amounts shall be made timely. AB reserves the right to require payment in advance or C.O.D. and otherwise modified credit terms. When partial shipments are made, payments for such shipments shall become due in accordance with the above terms upon submission of invoices. If, at the request of Buyer, shipment is postponed for more than thirty (30) days, payment will become due thirty days after notice to Buyer that Products

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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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9. **Specifications:** Specifications for each Product are the specifications specified in the published datasheets of such Product, as of the date of AB's quotation (the "Specifications"). Except as otherwise agreed, AB reserves the right to modify the Specifications at any time without adversely affecting the functionality.
10. **Acceptance:** Unless Buyer notifies AB in writing within ten (10) days from the date of receipt of Products that the Products fail to conform to the Specifications, the Products will be deemed accepted by Buyer. No such claim of non-conformity shall be valid if (i) the Products have been altered, modified or damaged by Buyer, (ii) the rejection notice fails to explain the non-conformance in reasonable detail and is not accompanied by a test report evidencing the non-conformity, or (iii) rejected Products are not returned to AB within thirty (30) days of rejection; provided, that no Product returns may be made without a return material authorization issued by AB.
11. **Limited Warranties and Disclaimers:** AB warrants to Buyer that each Product, for a period of twelve (12) months from shipment date thereof, will conform to the Specifications and be free from defects in materials and workmanship. AB's sole liability and Buyer's exclusive remedy for Products that fail to conform to this limited warranty ("Defective Products") is limited to repair or replacement of such Defective Products, or issue a credit or rebate of no more than the purchase price of such Defective Products, at AB's sole option and election. This warranty shall not apply: (i) if Products have been damaged or submitted to abnormal conditions (mechanical, electrical, or thermal) during transit, storage, installation, or use; or (ii) if Products are subject to Improper Use (as defined below); or (iii) if the non-conformance of Products results from misuse, neglect, improper testing, storage, installation, unauthorized repair, alteration, or excess usage at or beyond the maximum values (temperature limit, maximum voltage, and other Specification limits) defined by AB; (iv) to any other default not attributable to AB; or (v) removal, alteration, or tampering of the original AB product labeling. This warranty does not extend

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14. **Miscellaneous:** In the event of any insolvency or inability to pay debts as they become due by Buyer, or voluntary or involuntary bankruptcy proceeding by or against Buyer, or appointment of a receiver or assignee for the benefit of creditors of Buyer, AB may elect to cancel any unfulfilled obligations. No Products or underlying information or technology may be exported or re-exported, directly or indirectly, contrary to US law or US Government export controls. AB will be excused from any obligation to the extent performance thereof is caused by, or arises in connection with, acts of God, fire, flood, riots, material shortages, strikes, governmental acts, disasters, earthquakes, inability to obtain labor or materials through its regular sources, delay in delivery by AB's supplies or any other reason beyond the reasonable control of AB. In the event any one or more of the provisions contained herein shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision hereof and these terms shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein. A waiver of a breach or default under these terms shall not be a waiver of any subsequent default. Failure of AB to enforce compliance with any of these terms shall not constitute a waiver of such terms. These terms are governed by the laws of the State of California without reference to conflict of law principles. The federal and state courts located within the State of California will have exclusive jurisdiction to adjudicate any dispute arising out of these terms.

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