

# AMDLA1707Q MOLDED INDUCTOR

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## FEATURES

- AEC-Q200 Qualified
- Shielded construction
- Soft saturation
- Low DCR per cubic mm
- Designed for switching frequencies between 100KHz-2MHz



## ELECTRICAL SPECIFICATIONS @ 25°C

Part Number*	Inductance (uH)	Tolerance (%)	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.	DC Resistance (mΩ)		Type
					Typ	Max	
AMDLA1707Q-R47MT	0.47	20	60	110	0.70	0.9	Lead Frame
AMDLA1707Q-R56MT	0.56	20	56	80	0.81	0.97	Lead Frame
AMDLA1707Q-1R0MT	1	20	46	50	1.06	1.3	Lead Frame
AMDLA1707Q-1R5MT	1.5	20	39	46	1.50	1.8	Lead Frame
AMDLA1707Q-1R8MT	1.8	20	35	40	1.70	2	Lead Frame
AMDLA1707Q-2R2MT	2.2	20	32	35	1.80	2.2	Lead Frame
AMDLA1707Q-3R3MT	3.3	20	30	32	2.70	3.3	Lead Frame
AMDLA1707Q-4R7MT	4.7	20	28	29	3.70	4.5	Lead Frame
AMDLA1707Q-6R8MT	6.8	20	24	25	6.00	7.2	Lead Frame
AMDLA1707Q-100MT	10	20	21	22	9.20	10.6	Lead Frame
AMDLA1707Q-150MT	15	20	16	16	12.8	15.5	Lead Frame
AMDLA1707Q-220MT	22	20	13.5	13.5	20.5	24	Lead Frame
AMDLA1707Q-330MT	33	20	12	12	32.0	37	Lead Frame
AMDLA1707Q-470MT	47	20	9.5	9.5	40.0	47	Lead Frame
AMDLA1707Q-680MT	68	20	8.0	8.5	66.0	76	Lead Frame
AMDLA1707Q-820MT	82	20	6.5	8.0	69.0	83	Lead Frame

\* Please refer to Part Identification section

### Test Conditions

Inductance: 100 kHz, 1 V, 0 Adc

Humidity Range: 85 ± 2% RH

Temperature Rise Current: Current measured at Δ T of 40°C

Saturation Current: Current measured at Δ L of 30%

## GENERAL SPECIFICATIONS

### Operating Temperature:

-55°C to +155°C with (40°C rise) I<sub>rms</sub> current.

### Maximum Part Temperature: +155°C

### Components Storage Temperature:

-55°C to +125°C

### Tape and Reel Packaging

Temperature: -10°C to +40°C

MSL: Level 1

## MATERIALS

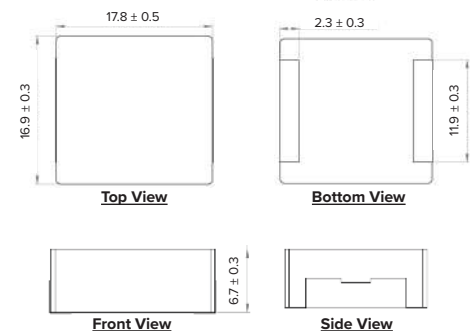
Core: Metal Alloy

Wire: Copper

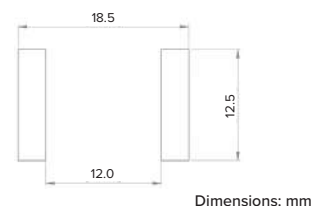
Terminal: Tin Plating

Ink: Black

## PRODUCT DIMENSIONS



## RECOMMENDED LANDING PATTERN



## PART BUILDER



1. Tolerance: M = 20%

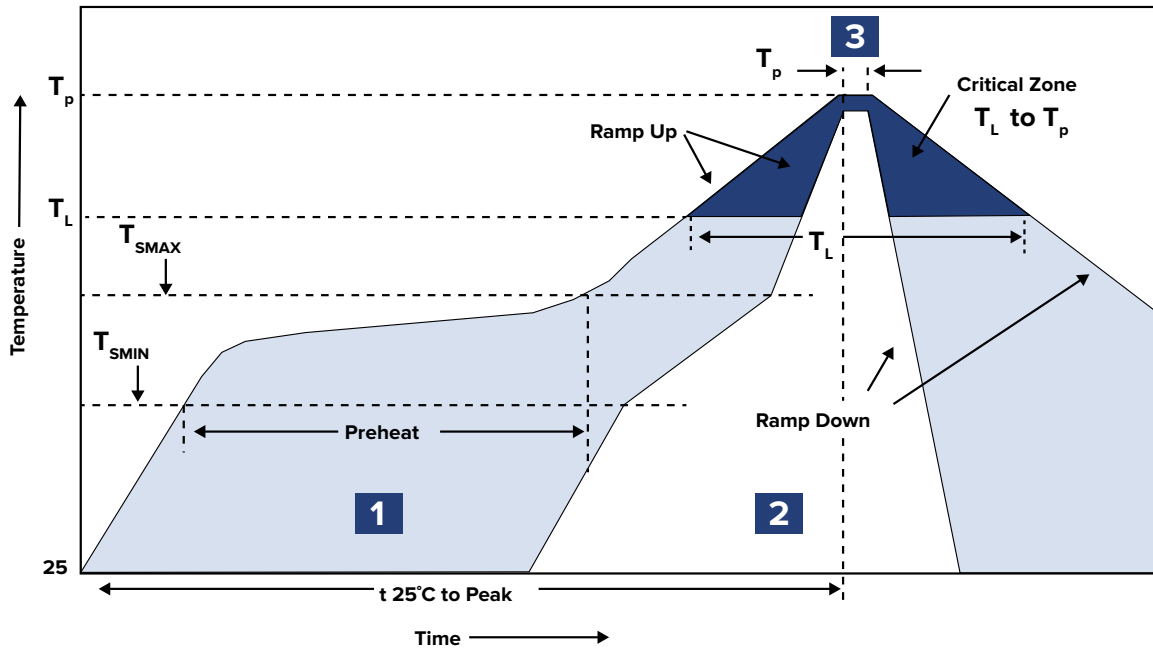
2. Packaging: B = Bulk

T = Tape and Reel (200pcs/reel)

\*Refer to Electrical Specification table

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## RECOMMENDED REFLOW PROFILE

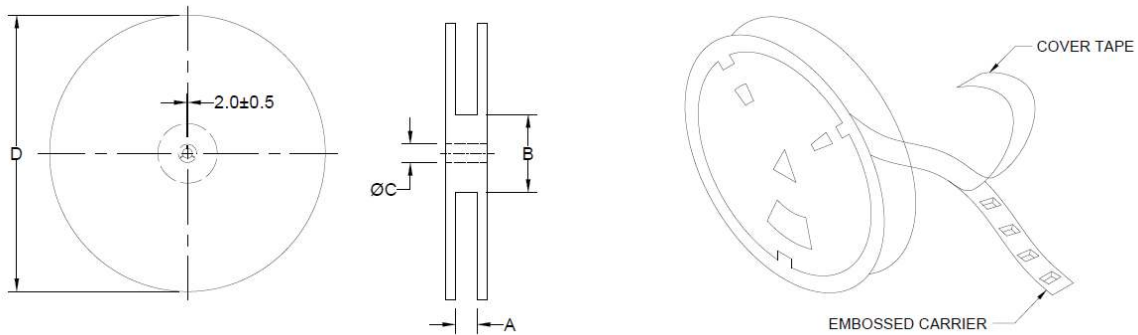


ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak Heat	$T_p$ 260°C	10 sec. MAX

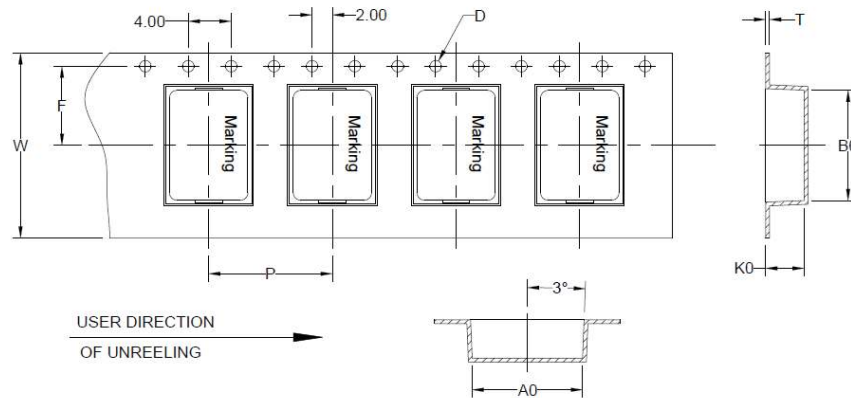
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## PACKAGING

Tape and Reel: 200



TYPE	A	B	C	D
13" x 32 mm	32.4 +2/-0	100.0 ± 2.0	13.5 +0.5/-0.2	330.0



B <sub>0</sub>	A <sub>0</sub>	K <sub>0</sub>	P	W	F	T	D
18.5 ± 0.1	17.5 ± 0.1	7.5 ± 0.1	24.0 ± 0.1	32.0 ± 0.3	14.2 ± 0.1	0.5 ± 0.05	1.5 ± 0.1

Dimensions: mm

This product is commercial off-the-shelf (COTS) and not specifically designed for automotive, military, aviation, aerospace, implantable, life-dependent medical or safety applications. This product is not recommended for use in any application requiring high reliability in which component failure could result in loss of life and/or property damage without prior written approval from Abracon. Specifications are subject to change without notice. Contact Abracon for more information.