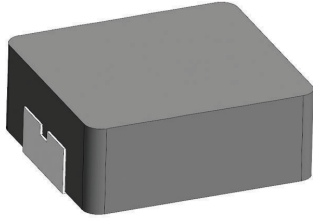


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## FEATURES

- AEC-Q200 Qualified
- Shielded construction
- Soft saturation
- High current density
- Designed for switching frequencies between 100KHz-2MHz



## ELECTRICAL SPECIFICATIONS @ 25°C

PART NUMBER*	INDUCTANCE (uH)	TOLERANCE (%)	IRMS (A)	ISAT (A)	DC RESISTANCE (mΩ)		TYPE
					TYP	MAX	
AMPLA7030Q-R10NT	0.10	30	32.5	60	1.2	1.7	Lead Frame
AMPLA7030Q-R13NT	0.13	30	27.6	50	1.3	1.8	Lead Frame
AMPLA7030Q-R15NT	0.15	30	27	45	1.5	1.9	Lead Frame
AMPLA7030Q-R16NT	0.16	30	27	45	1.5	1.9	Lead Frame
AMPLA7030Q-R18NT	0.18	30	25	43	1.7	2.3	Lead Frame
AMPLA7030Q-R19NT	0.19	30	24	41	1.8	2.5	Lead Frame
AMPLA7030Q-R20NT	0.20	30	24	41	1.8	2.5	Lead Frame
AMPLA7030Q-R22NT	0.22	30	23	40	2.1	2.8	Lead Frame
AMPLA7030Q-R25MT	0.25	20	21	39	3.3	3.5	Lead Frame
AMPLA7030Q-R33MT	0.33	20	20	32	3.5	3.9	Lead Frame
AMPLA7030Q-R36MT	0.36	20	19	32	3.6	4.2	Lead Frame
AMPLA7030Q-R40MT	0.40	20	18	27.5	3.7	4.1	Lead Frame
AMPLA7030Q-R47MT	0.47	20	17.5	26	4.0	4.2	Lead Frame
AMPLA7030Q-R56MT	0.56	20	16.5	25.5	4.7	5.0	Lead Frame
AMPLA7030Q-R60MT	0.60	20	16	25.5	4.7	5.2	Lead Frame
AMPLA7030Q-R68MT	0.68	20	15.5	25	4.8	5.5	Lead Frame
AMPLA7030Q-R75MT	0.75	20	14.5	24.5	5.5	6.6	Lead Frame
AMPLA7030Q-R82MT	0.82	20	13	24	6.7	8	Lead Frame
AMPLA7030Q-R90MT	0.90	20	11	22	8.3	10	Lead Frame
AMPLA7030Q-1R0MT	1.0	20	11	22	8.3	10	Lead Frame
AMPLA7030Q-1R2MT	1.2	20	10	20	10	12	Lead Frame
AMPLA7030Q-1R5MT	1.5	20	9.0	18	13	15	Lead Frame
AMPLA7030Q-1R8MT	1.8	20	8.5	16	14	17	Lead Frame
AMPLA7030Q-2R0MT	2.0	20	8.2	15	16	19	Lead Frame
AMPLA7030Q-2R2MT	2.2	20	8.0	14	18	20	Lead Frame
AMPLA7030Q-2R5MT	2.5	20	7.0	13	20	22	Lead Frame
AMPLA7030Q-2R7MT	2.7	20	7.0	13	24	27	Lead Frame
AMPLA7030Q-3R3MT	3.3	20	6.0	13.5	28	30	Lead Frame
AMPLA7030Q-4R7MT	4.7	20	5.5	10	37	40	Lead Frame
AMPLA7030Q-5R6MT	5.6	20	5.0	9.0	43	48	Lead Frame
AMPLA7030Q-6R8MT	6.8	20	4.5	8.0	54	60	Lead Frame
AMPLA7030Q-8R2MT	8.2	20	4.0	7.5	64	68	Lead Frame
AMPLA7030Q-100MT	10	20	3.5	6.0	75	85	Lead Frame
AMPLA7030Q-120MT	12	20	3.3	5.5	81	93	Lead Frame
AMPLA7030Q-150MT	15	20	3.0	4.0	107	123	Lead Frame
AMPLA7030Q-180MT	18	20	2.5	4.0	140	160	Lead Frame
AMPLA7030Q-220MT	22	20	2.0	3.5	165	190	Lead Frame
AMPLA7030Q-330MT	33	20	2.0	2.5	200	240	Lead Frame
AMPLA7030Q-470MT	47	20	1.75	2.0	302	363	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 +125°C with (40°C rise) Irms current.

Maximum Part Temperature: +125°C

Components Storage Temperature: -55°C to +125°C

Tape and Reel Packaging

Temperature: -55°C to +80°C

MSL: Level 1

Not recommended for D.I. water wash

## MATERIALS

Core: Carbonyl Powder

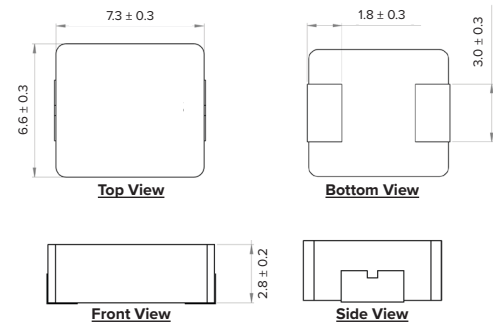
Wire: Copper

Terminal: Tin Plating

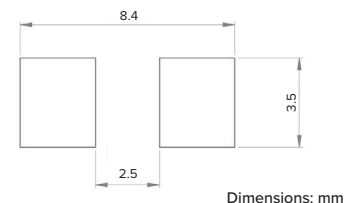
Ink: Black

Paint: Gray

## PRODUCT DIMENSIONS



## RECOMMENDED LANDING PATTERN



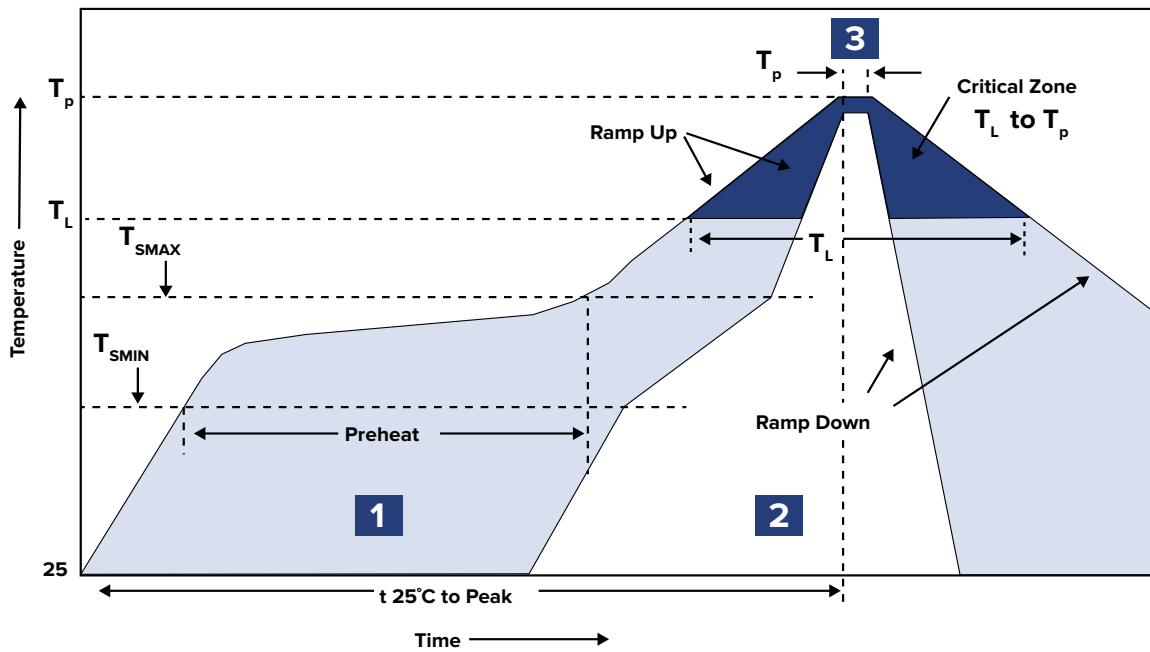
**PART BUILDER**

<b>AMPLA7030Q</b>	—	<b>1R0</b>	<b>M</b>	<b>T</b>
Series		Inductance*	Tol. <sup>1</sup>	Packaging <sup>2</sup>

1. Tolerance: M = 20%  
N = 30%
2. Packaging: B = Bulk  
T = Tape and Reel (1,000pcs/reel)

\*Refer to Electrical Specification table

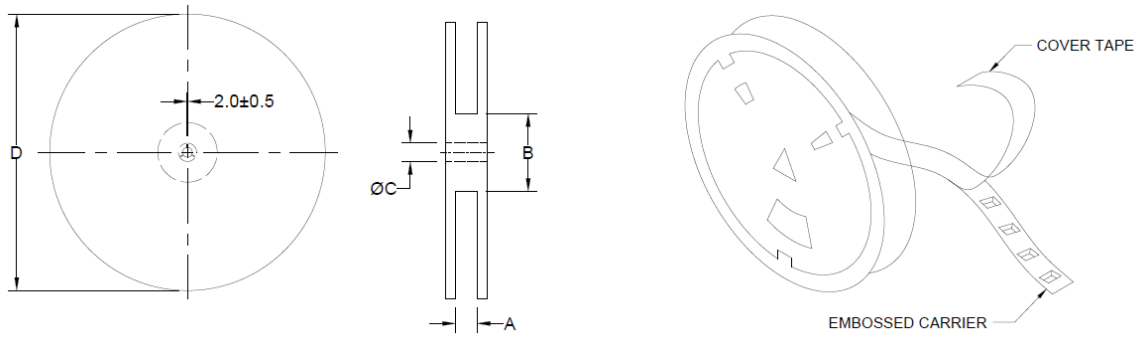
**RECOMMENDED REFLOW PROFILE**



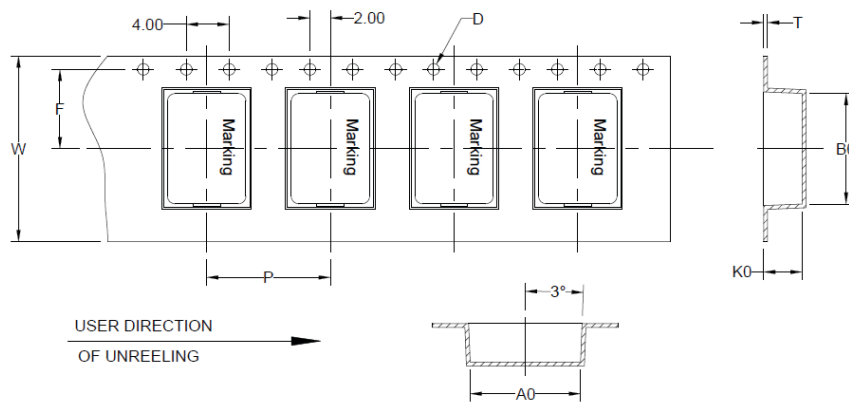
ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak Heat	$T_p$ 260°C	10 sec. MAX

## PACKAGING

Tape and Reel: 1,000  
 Units per Carton: 8,000  
 T&R per Carton: 8  
 Weight per Carton: 11.1 kg  
 Weight per Unit: 0.75 g  
 Carton Dimensions: 410 x 325 x 415 mm



TYPE	A	B	C	D
13" x 16 mm	16.4 +2/-0	100 ± 2.0	13.0 +0.5/-0.2	330



B <sub>0</sub>	A <sub>0</sub>	K <sub>0</sub>	P	W	F	T	D
7.7 ± 0.1	7.0 ± 0.1	3.3 ± 0.1	12.0 ± 0.1	16.0 ± 0.3	7.5 ± 0.1	0.35 ± 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.