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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 (%)	IRMS (A)	ISAT (A)	DC RESISTANCE (mΩ)		TYPE
					TYP	MAX	
AMPLA7012Q-R10NT	0.10	30	16.0	30	3.3	4.0	Lead Frame
AMPLA7012Q-R22NT	0.22	30	11.0	19	6.5	7.5	Lead Frame
AMPLA7012Q-R33MT	0.33	20	9.5	16	9.0	10	Lead Frame
AMPLA7012Q-R47MT	0.47	20	8.5	12	13	17	Lead Frame
AMPLA7012Q-R68MT	0.68	20	7.0	9.0	17	19	Lead Frame
AMPLA7012Q-1R0MT	1.0	20	6.0	7.0	27	30	Lead Frame
AMPLA7012Q-1R2MT	1.2	20	5.0	6.8	31	36	Lead Frame
AMPLA7012Q-1R5MT	1.5	20	4.5	6.5	35	40	Lead Frame
AMPLA7012Q-2R2MT	2.2	20	4.0	5.0	53	61	Lead Frame
AMPLA7012Q-3R3MT	3.3	20	3.2	4.0	90	103	Lead Frame
AMPLA7012Q-4R7MT	4.7	20	2.5	3.8	130	150	Lead Frame
AMPLA7012Q-6R8MT	6.8	20	2.1	3.0	172	198	Lead Frame
AMPLA7012Q-100MT	10.0	20	1.8	2.5	280	290	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

## MATERIALS

Core: Carbonyl Powder

Wire: Copper

Terminal: Tin Plating

Ink: Black

Paint: Gray

## PART BUILDER

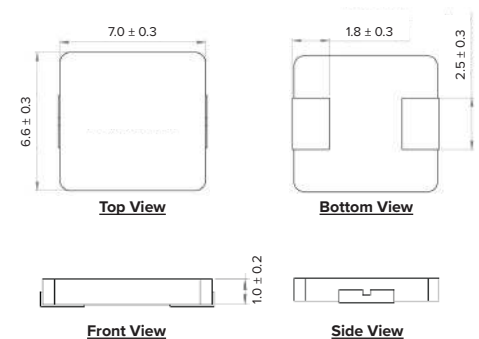


1. Tolerance: M = 20%  
N = 30%

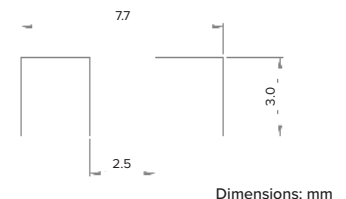
2. Packaging: B = Bulk  
T = Tape and Reel (3,000pcs/reel)

\*Refer to Electrical Specification table

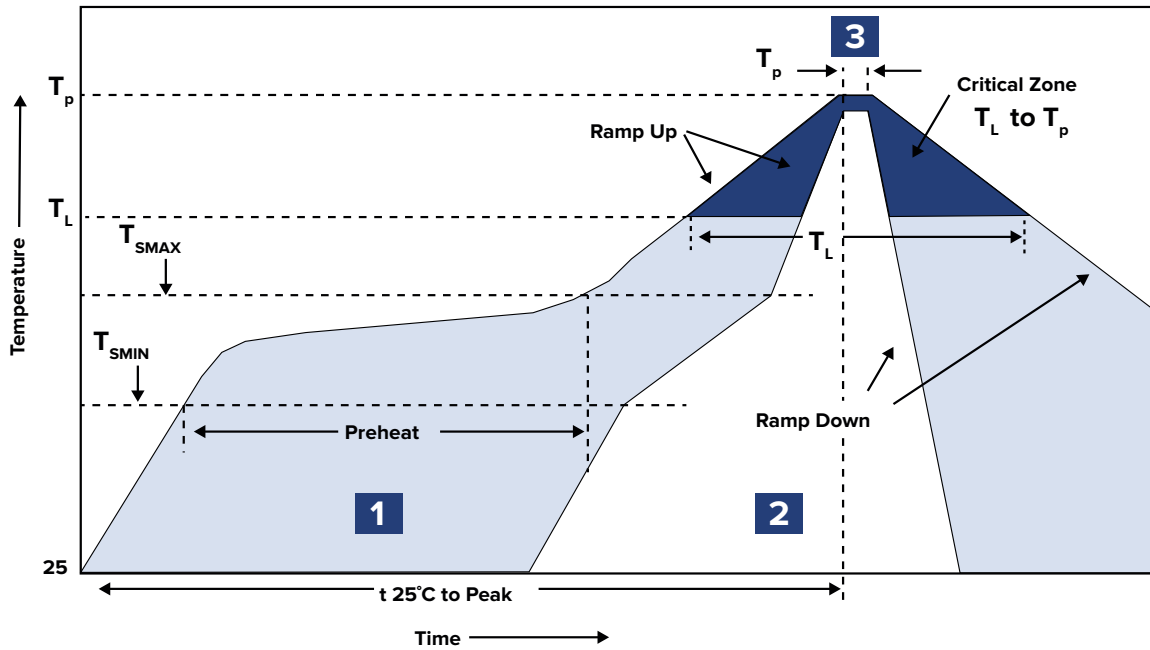
## PRODUCT DIMENSIONS



## RECOMMENDED LANDING PATTERN



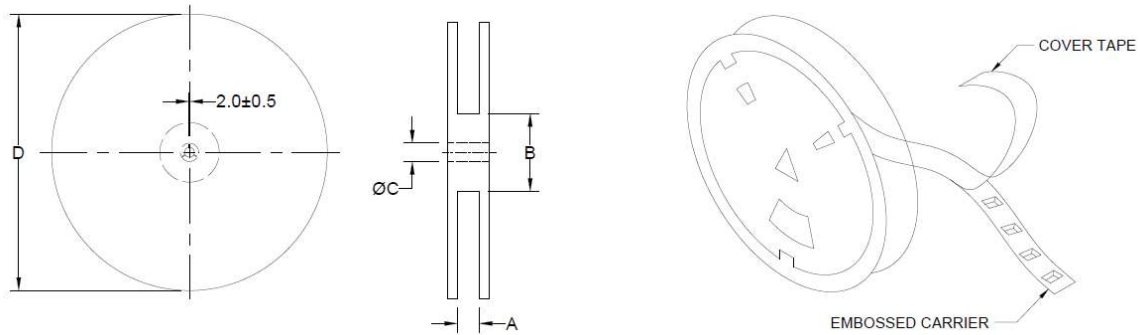
## RECOMMENDED REFLOW PROFILE



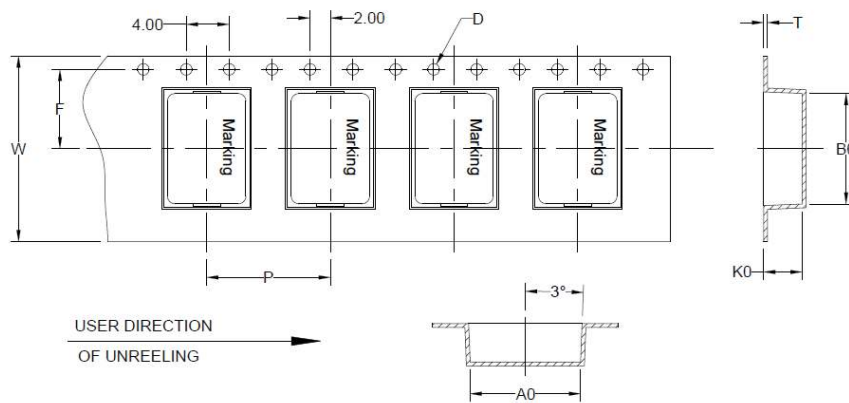
ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak Heat	$T_p$ 260°C	10 sec. MAX

## PACKAGING

Tape and Reel: 3,000  
 Units per Carton: 24,000  
 T&R per Carton: 8  
 Weight per Carton: 12.9 kg  
 Weight per Unit: 0.26 g  
 Carton Dimensions: 410 x 325 x 415 mm



TYPE	A	B	C	D
13" x 16 mm	16.4 +2/-0	100.0 ± 2.0	13.0 +0.5/-0.2	330.0



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	1.5 ± 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.