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## FEATURES

- Shielded construction
- Soft saturation
- High current density
- Designed for switching frequencies between 100KHz-2MHz
- Automotive option available upon request



## ELECTRICAL SPECIFICATIONS @ 25°C

PART NUMBER*	INDUCTANCE (uH)	TOLERANCE (%)	IRMS (A)	ISAT (A)	DC RESISTANCE (mΩ)		TYPE
					TYP	MAX	
AMPLA5030S-R15NT	0.15	30	18.0	30.0	2.3	2.7	Lead Frame
AMPLA5030S-R20NT	0.20	30	16.0	25.0	2.6	3.2	Lead Frame
AMPLA5030S-R25MT	0.25	20	15.0	20.0	3.7	4.1	Lead Frame
AMPLA5030S-R33MT	0.33	20	14.0	18.0	4.3	5.0	Lead Frame
AMPLA5030S-R47MT	0.47	20	12.0	16.0	6.4	7.4	Lead Frame
AMPLA5030S-R56MT	0.56	20	10.0	15.0	8.0	10	Lead Frame
AMPLA5030S-R68MT	0.68	20	8.5	14.0	10.0	12	Lead Frame
AMPLA5030S-R82MT	0.82	20	8.0	12.5	11.5	13	Lead Frame
AMPLA5030S-1R0MT	1.0	20	7.0	11.0	13	14	Lead Frame
AMPLA5030S-1R2MT	1.2	20	6.5	11.0	14	16	Lead Frame
AMPLA5030S-1R5MT	1.5	20	6.0	10.0	16	25	Lead Frame
AMPLA5030S-2R2MT	2.2	20	5.5	9.0	25	35	Lead Frame
AMPLA5030S-3R3MT	3.3	20	5.0	8.0	32	38	Lead Frame
AMPLA5030S-4R7MT	4.7	20	4.6	6.0	50	53	Lead Frame
AMPLA5030S-5R6MT	5.6	20	4.25	4.5	55	63	Lead Frame
AMPLA5030S-6R8MT	6.8	20	4.0	4.3	68	76.2	Lead Frame
AMPLA5030S-100MT	10.0	20	2.75	3.5	110	128	Lead Frame
AMPLA5030S-150MT	15.0	20	2.1	2.6	165	190	Lead Frame
AMPLA5030S-220MT	22.0	20	1.9	1.7	220	250	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%

## PART BUILDER



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

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

\*Refer to Electrical Specification table

## 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

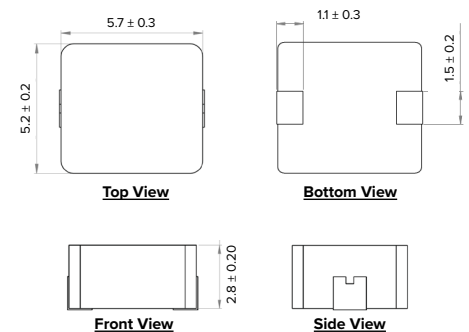
Wire: Copper

Terminal: Tin Plating

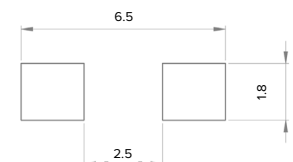
Ink: Black

Paint: Gray

## PRODUCT DIMENSIONS

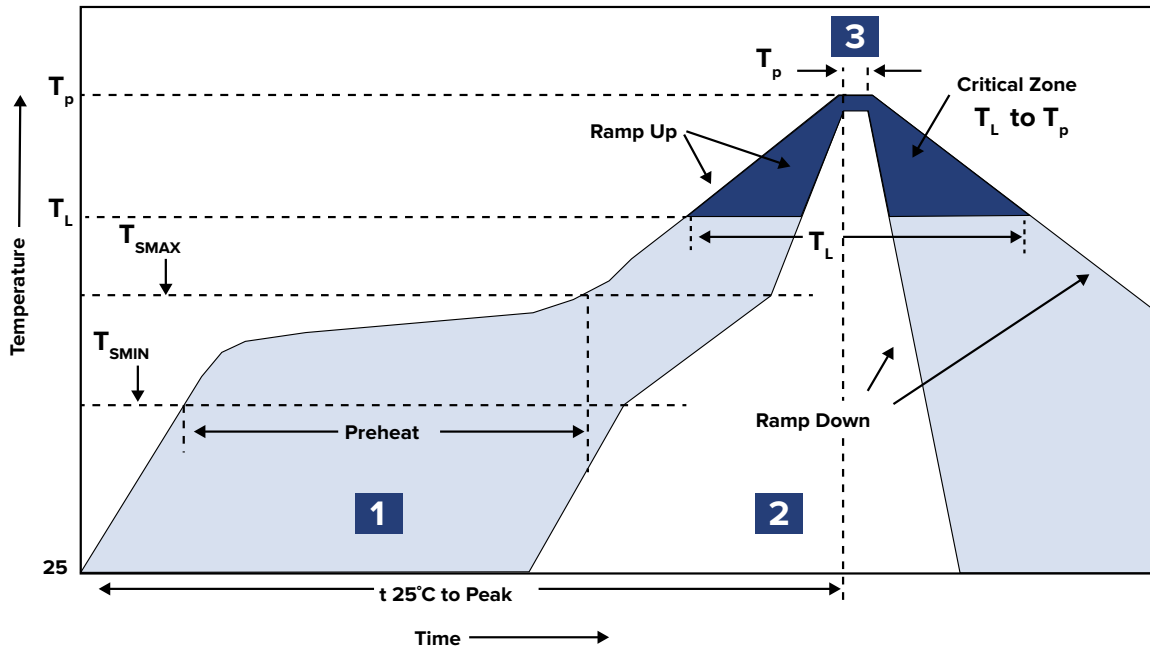


### RECOMMENDED LANDING PATTERN



Dimensions: mm

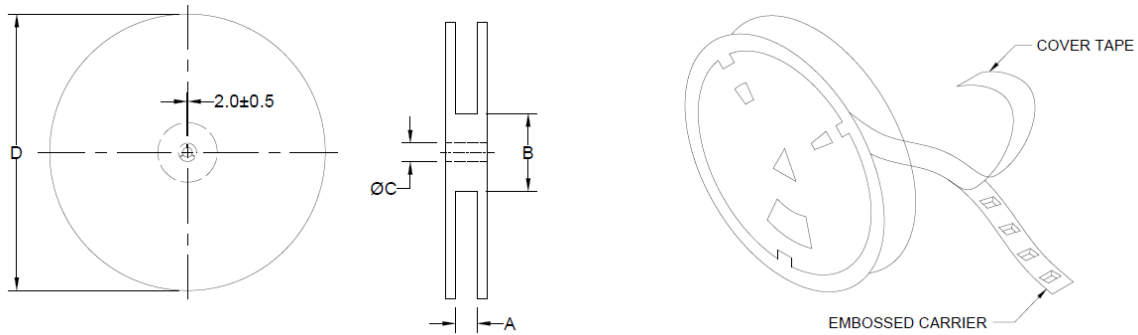
## RECOMMENDED REFLOW PROFILE



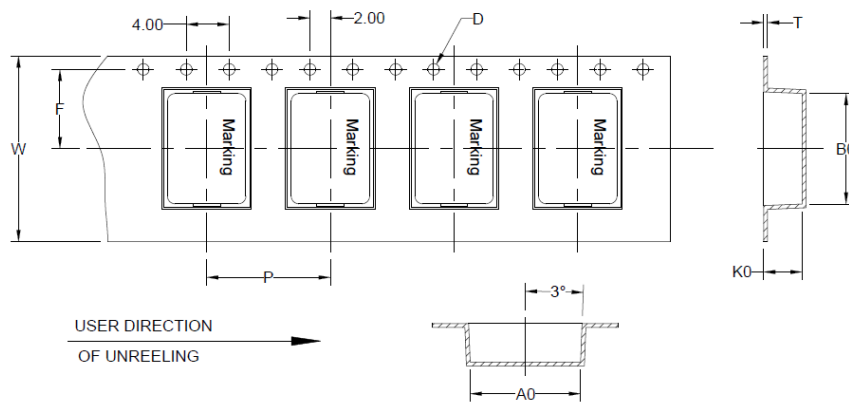
ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak Heat	$T_p$ 260°C	10 sec. MAX

## PACKAGING

Tape and Reel: 2,000  
 Units per Carton: 16,000  
 T&R per Carton: 8  
 Weight per Carton: 12.5 kg  
 Weight per Unit: 0.46 g  
 Carton Dimensions: 410 x 325 x 415 mm



TYPE	A	B	C	D
13" x 12 mm	12.4 +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
6.2 ± 0.1	5.5 ± 0.1	3.3 ± 0.1	8.0 ± 0.1	12.0 ± 0.3	5.5 ± 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.

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