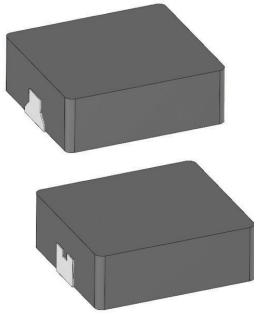


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## FEATURES

- 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	
AMPLA1004S-R15NT	0.15	30	43	75	0.5	0.6	Non-Lead Frame
AMPLA1004S-R19NT	0.19	30	36	70	0.6	0.9	Non-Lead Frame
AMPLA1004S-R22MT	0.22	20	35	60	0.8	1.0	Non-Lead Frame
AMPLA1004S-R24MT	0.24	20	34	60	0.8	1.0	Non-Lead Frame
AMPLA1004S-R27MT	0.27	20	33	60	0.82	1.0	Non-Lead Frame
AMPLA1004S-R30MT	0.30	20	32	60	0.94	1.1	Non-Lead Frame
AMPLA1004S-R36MT	0.36	20	31	60	1.05	1.2	Non-Lead Frame
AMPLA1004S-R39MT	0.39	20	30	60	1.1	1.3	Non-Lead Frame
AMPLA1004S-R45MT	0.45	20	29	45	1.3	1.5	Non-Lead Frame
AMPLA1004S-R47MT	0.47	20	28	43	1.3	1.5	Non-Lead Frame
AMPLA1004S-R56MT	0.56	20	25	40	1.6	1.8	Non-Lead Frame
AMPLA1004S-R68MT	0.68	20	22	39	2.4	2.7	Non-Lead Frame
AMPLA1004S-R75MT	0.75	20	22	39	2.4	2.7	Non-Lead Frame
AMPLA1004S-R88MT	0.88	20	20	38	2.5	2.9	Non-Lead Frame
AMPLA1004S-1R0MT	1.0	20	18	36	3.0	3.3	Non-Lead Frame
AMPLA1004S-1R2MT	1.2	20	17	33	3.3	3.8	Non-Lead Frame
AMPLA1004S-1R5MT	1.5	20	16	33	4.0	4.6	Non-Lead Frame
AMPLA1004S-1R8MT	1.8	20	14	30	5.3	6.4	Lead Frame
AMPLA1004S-2R2MT	2.2	20	12	27	6.5	7.0	Lead Frame
AMPLA1004S-2R5MT	2.5	20	11.5	23	7.9	8.7	Lead Frame
AMPLA1004S-3R0MT	3.0	20	11.5	21	10	11.5	Lead Frame
AMPLA1004S-3R3MT	3.3	20	11	20	10.8	11.8	Lead Frame
AMPLA1004S-3R9MT	3.9	20	10.5	19	12.6	14.5	Lead Frame
AMPLA1004S-4R0MT	4.0	20	10.2	18	13	15	Lead Frame
AMPLA1004S-4R7MT	4.7	20	10.0	17	15	15.5	Lead Frame
AMPLA1004S-5R6MT	5.6	20	9.0	14	17	19.3	Lead Frame
AMPLA1004S-6R2MT	6.2	20	8.7	13.7	17.2	21.3	Lead Frame
AMPLA1004S-6R8MT	6.8	20	8.5	13.5	17.5	23.3	Lead Frame
AMPLA1004S-7R3MT	7.3	20	8.3	13	19	21.8	Lead Frame
AMPLA1004S-8R2MT	8.2	20	8.0	12.5	20	22.5	Lead Frame
AMPLA1004S-100MT	10.0	20	7.5	12	27	30	Lead Frame
AMPLA1004S-150MT	15.0	20	6.25	10	40	45	Lead Frame
AMPLA1004S-180MT	18.0	20	5.5	9.0	56	62	Lead Frame
AMPLA1004S-220MT	22.0	20	5.0	7.0	64	74	Lead Frame
AMPLA1004S-270MT	27.0	20	4.0	6.0	86	100	Lead Frame
AMPLA1004S-330MT	33.0	20	3.5	5.0	92	112	Lead Frame
AMPLA1004S-470MT	47.0	20	3.0	4.5	145	167	Lead Frame
AMPLA1004S-680MT	68.0	20	2.0	3.0	205	240	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

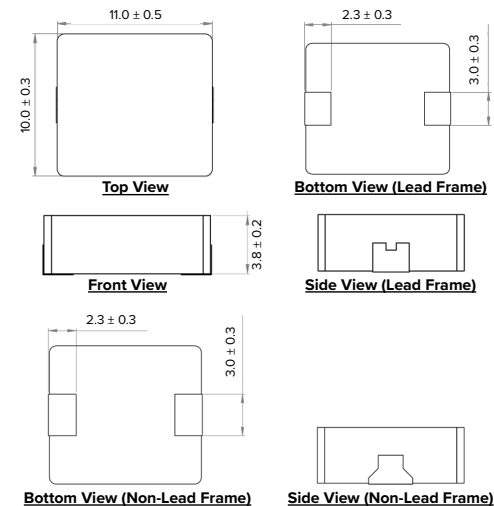
Wire: Copper

Terminal: Tin Plating

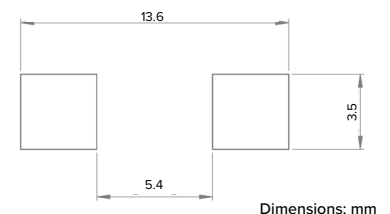
Ink: Black

Paint: Gray

## PRODUCT DIMENSIONS



## RECOMMENDED LANDING PATTERN



## PART BUILDER

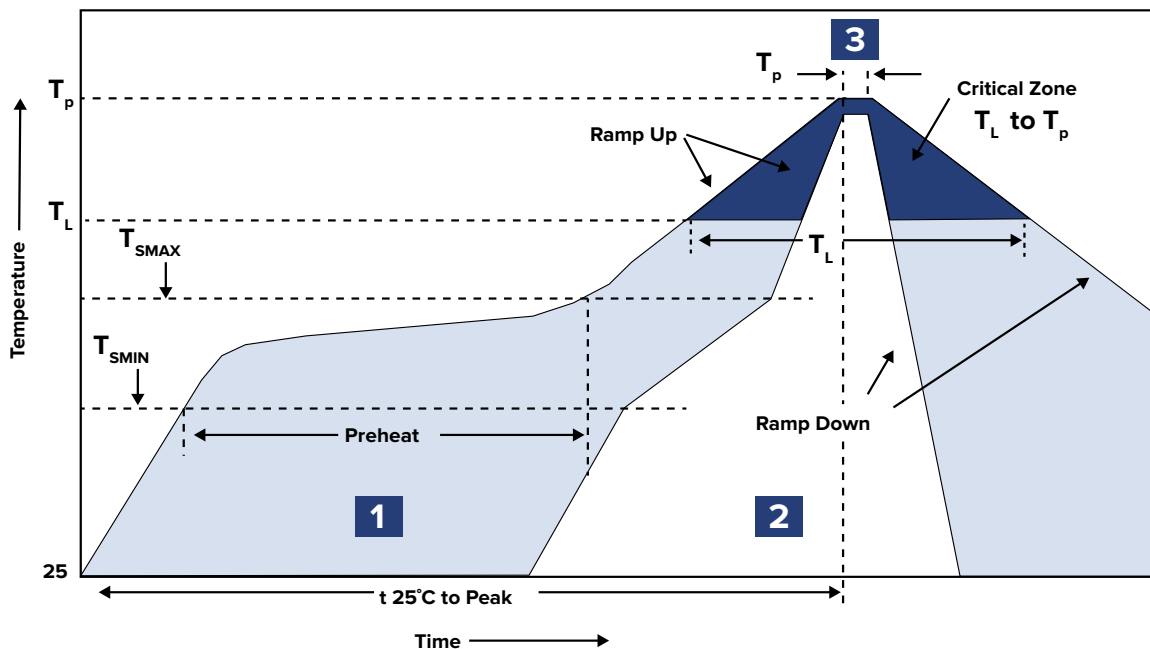


1. Tolerance: M = 20%  
N = 30%

2. Packaging: B = Bulk  
T = Tape and Reel (500pcs/reel)

\*Refer to Electrical Specification table

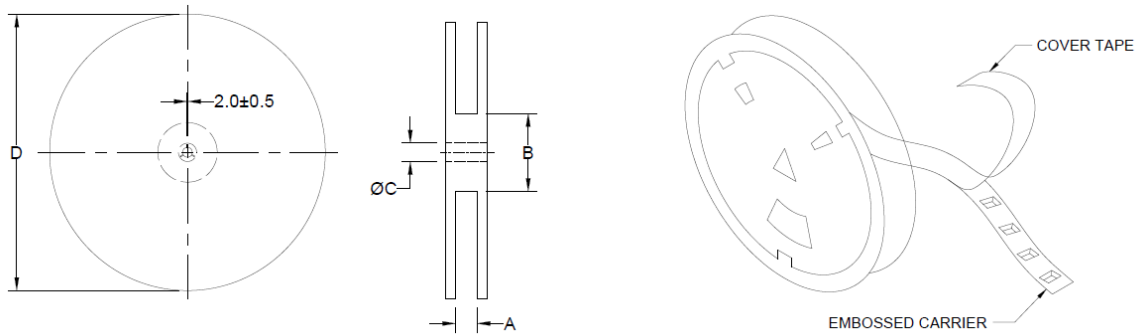
## RECOMMENDED REFLOW PROFILE



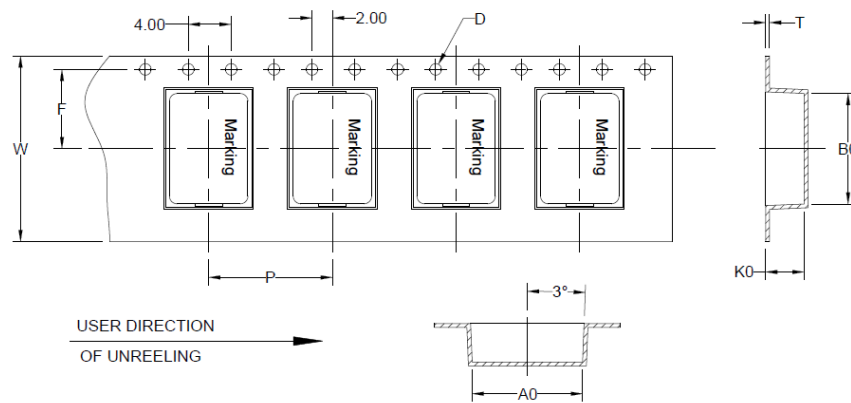
ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak Heat	$T_p$ 260°C	10 sec. MAX

## PACKAGING

Tape and Reel: 500  
 Units per Carton: 4,000  
 T&R per Carton: 8  
 Weight per Carton: 14.7 kg  
 Weight per Unit: 2.4 g  
 Carton Dimensions: 410 x 325 x 415 mm



TYPE	A	B	C	D
13" x 24 mm	24.4 +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
11.6 ± 0.1	10.4 ± 0.1	4.5 ± 0.1	4.5 ± 0.1	24.0 ± 0.3	11.5 ± 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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