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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	
AMPLA1707S-R45MT	0.45	20	62	125	0.80	0.96	Lead Frame
AMPLA1707S-R47MT	0.47	20	62	123	0.95	1.03	Lead Frame
AMPLA1707S-1R0MT	1.0	20	52	70	1.6	2.0	Lead Frame
AMPLA1707S-1R3MT	1.3	20	49	67	1.7	2.3	Lead Frame
AMPLA1707S-1R5MT	1.5	20	47	65	2.0	2.5	Lead Frame
AMPLA1707S-1R8MT	1.8	20	45	63	2.1	2.5	Lead Frame
AMPLA1707S-2R2MT	2.2	20	43.5	62	2.4	2.7	Lead Frame
AMPLA1707S-3R3MT	3.3	20	28	54	3.5	3.9	Lead Frame
AMPLA1707S-4R7MT	4.7	20	25	50	4.8	5.5	Lead Frame
AMPLA1707S-5R6MT	5.6	20	21	45	5.8	7.05	Lead Frame
AMPLA1707S-6R8MT	6.8	20	19	39	8.4	9.2	Lead Frame
AMPLA1707S-7R4MT	7.4	20	18.5	34	8.8	9.7	Lead Frame
AMPLA1707S-8R2MT	8.2	20	18	31	9.6	10.8	Lead Frame
AMPLA1707S-100MT	10	20	16.5	29	11.8	13	Lead Frame
AMPLA1707S-150MT	15	20	12.5	27	17.8	20.5	Lead Frame
AMPLA1707S-220MT	22	20	12	23	25.1	26.5	Lead Frame
AMPLA1707S-330MT	33	20	10.7	20	38	44	Lead Frame
AMPLA1707S-390MT	39	20	9.2	18	40	48	Lead Frame
AMPLA1707S-470MT	47	20	8.7	16	48	55	Lead Frame
AMPLA1707S-560MT	56	20	7.8	15	54	62	Lead Frame
AMPLA1707S-680MT	68	20	7	13	68	80	Lead Frame
AMPLA1707S-820MT	82	20	5.7	12	87	100	Lead Frame
AMPLA1707S-101MT	100	20	5.3	12	102	118	Lead Frame

\* Please refer to Part Identification section

### Test Conditions

Inductance: 100 kHz, 1V, 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%

2. Packaging: B = Bulk

T = Tape and Reel (200pcs/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

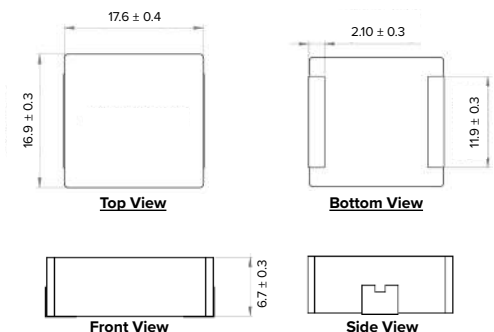
Wire: Copper

Terminal: Tin Plating

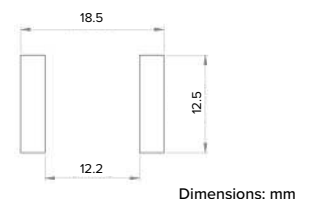
Ink: Black

Paint: Gray

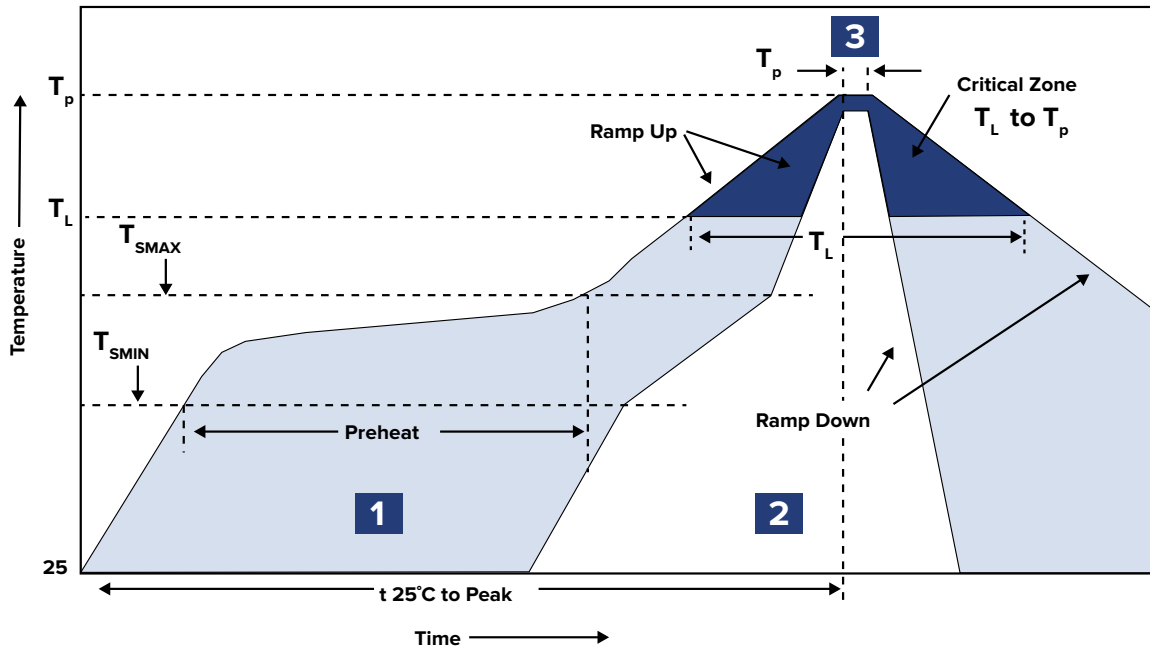
## PRODUCT DIMENSIONS



### RECOMMENDED LANDING PATTERN



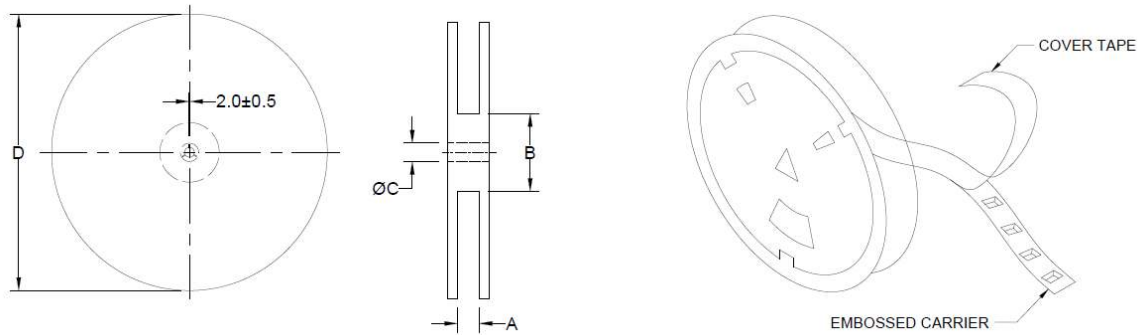
## RECOMMENDED REFLOW PROFILE



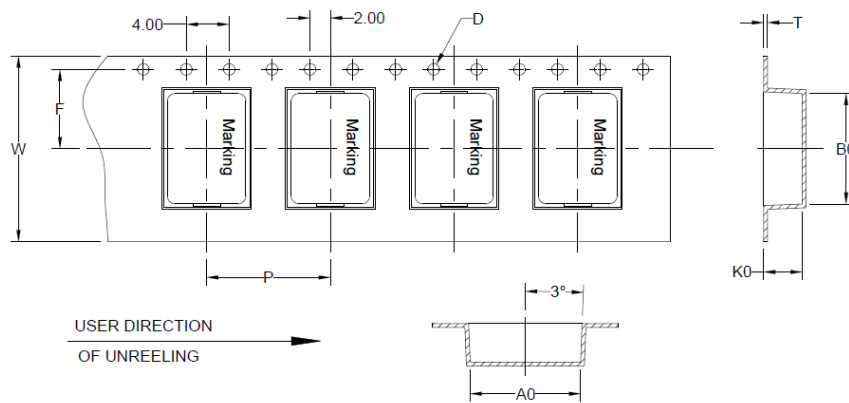
ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak Heat	$T_p$ 260°C	10 sec. MAX

## PACKAGING

Tape and Reel: 200  
 Units per Carton: 800  
 T&R per Carton: 4  
 Weight per Carton: 12.8 kg  
 Weight per Unit: 11.5 g  
 Carton Dimensions: 410 x 325 x 415 mm



TYPE	A	B	C	D
13" x 32 mm	32.4 +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	P <sub>0</sub>	P <sub>2</sub>	W	F	T	D
18.5 ± 0.1	17.5 ± 0.1	7.5 ± 0.1	24.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	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.