



## 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	
AMPLA7050S-R40MT	0.40	20	23	31	3.1	3.7	Lead Frame
AMPLA7050S-R47MT	0.47	20	22	30	3.5	3.9	Lead Frame
AMPLA7050S-R56MT	0.56	20	20	27	3.6	4.2	Lead Frame
AMPLA7050S-R60MT	0.60	20	19	25	3.8	4.3	Lead Frame
AMPLA7050S-R68MT	0.68	20	18	24	4.0	4.5	Lead Frame
AMPLA7050S-R82MT	0.82	20	16.5	22	4.6	4.9	Lead Frame
AMPLA7050S-1R0MT	1.0	20	15	20	6.1	6.5	Lead Frame
AMPLA7050S-1R2MT	1.2	20	14	18	6.7	7.5	Lead Frame
AMPLA7050S-1R5MT	1.5	20	12	16.5	8.6	9.0	Lead Frame
AMPLA7050S-2R2MT	2.2	20	10	14	11.2	12.0	Lead Frame
AMPLA7050S-3R3MT	3.3	20	8	12	19.0	20.9	Lead Frame
AMPLA7050S-4R7MT	4.7	20	6.5	10	28.0	30.8	Lead Frame
AMPLA7050S-5R6MT	5.6	20	6	9.0	43.5	49.0	Lead Frame
AMPLA7050S-6R8MT	6.8	20	5.5	8.5	46.0	51.5	Lead Frame
AMPLA7050S-8R2MT	8.2	20	5	8.5	56.0	63.0	Lead Frame
AMPLA7050S-100MT	10.0	20	4	7.5	60.0	69.0	Lead Frame
AMPLA7050S-220MT	22.0	20	2.5	5.5	140	170.0	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

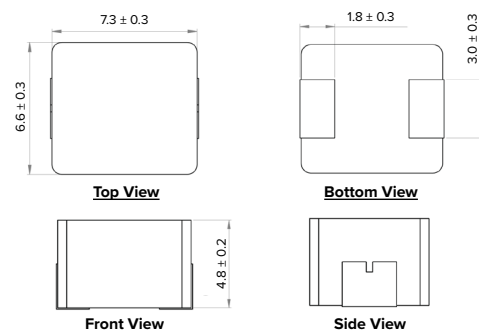
Wire: Copper

Terminal: Tin Plating

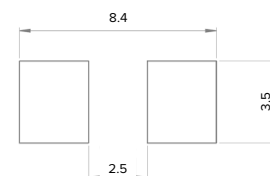
Ink: Black

Paint: Gray

## PRODUCT DIMENSIONS



### RECOMMENDED LANDING PATTERN



Dimensions: mm

## PART BUILDER



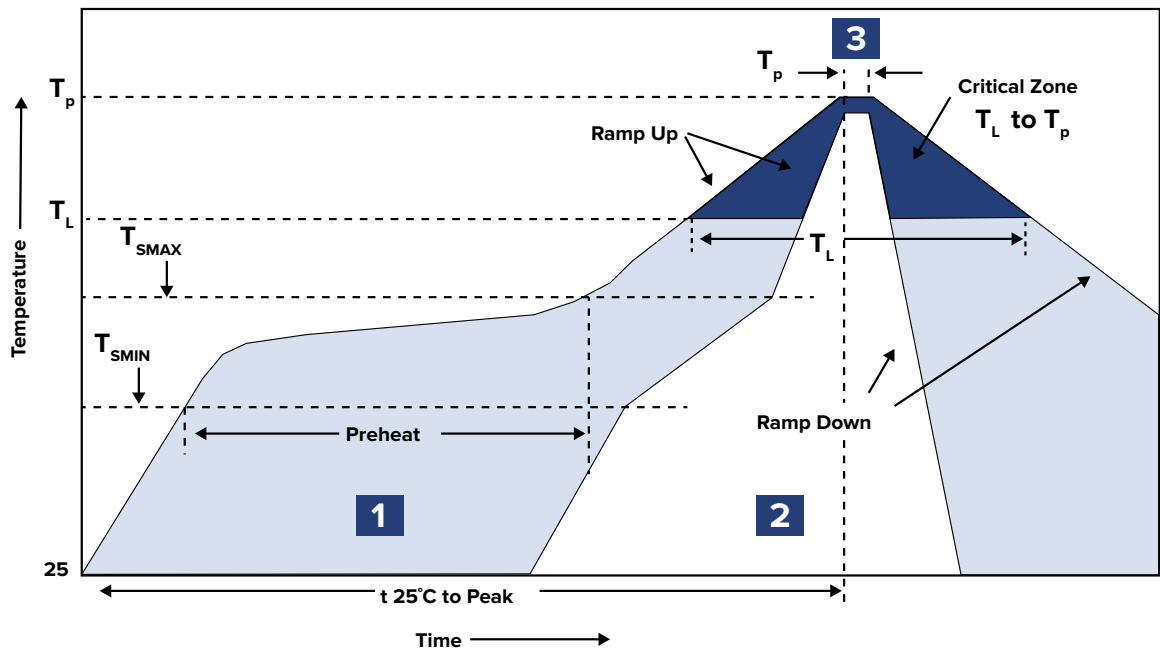
1. Tolerance: M = 20%

2. Packaging: B = Bulk

T = Tape and Reel (800pcs/reel)

\*Refer to Electrical Specification table

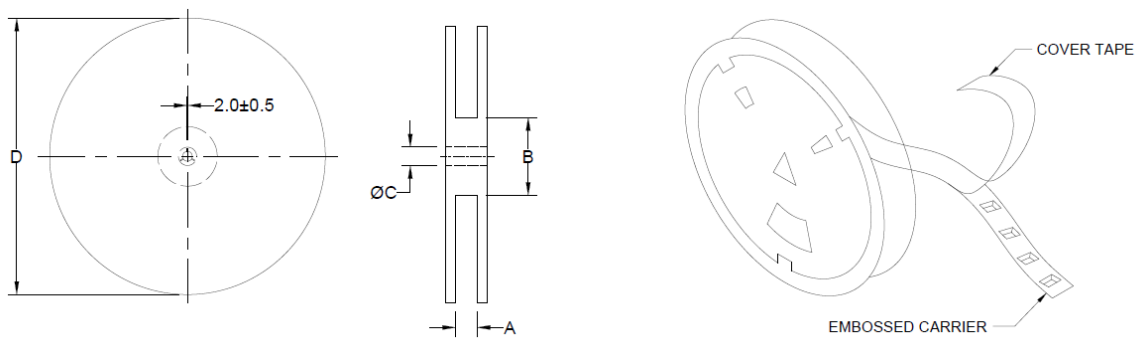
RECOMMENDED REFLOW PROFILE



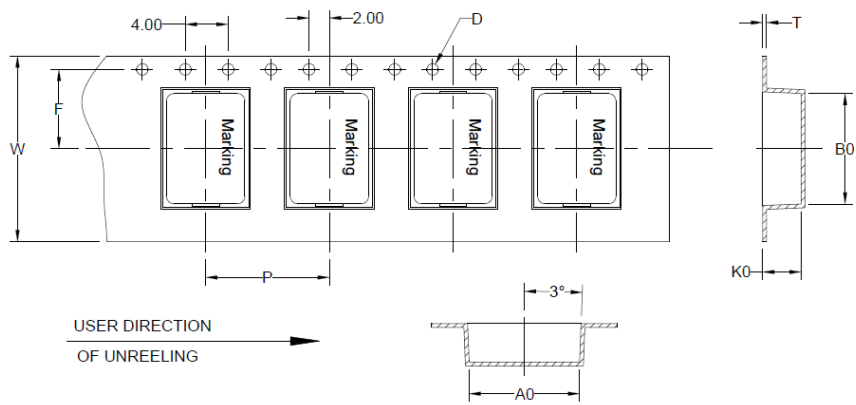
ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak Heat	$T_p$ 260°C	10 sec. MAX

PACKAGING

Tape and Reel: 800  
Units per Carton: 6,400  
T&R per Carton: 8  
Weight per Carton: 13.0 kg  
Weight per Unit: 1.25 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	5.3 ± 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.