



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	
AMPLA4012S-R10NT	0.10	30	11.5	25	4.3	5.5	Lead Frame
AMPLA4012S-R22MT	0.22	20	8.5	20	6.6	8	Lead Frame
AMPLA4012S-R33MT	0.33	20	7.0	11	13.6	16	Lead Frame
AMPLA4012S-R36MT	0.36	20	6.5	8.5	15.5	18	Lead Frame
AMPLA4012S-R47MT	0.47	20	6.0	6.5	18	12	Lead Frame
AMPLA4012S-R60MT	0.60	20	5.3	6.0	22.5	26	Lead Frame
AMPLA4012S-R68MT	0.68	20	5.0	6.0	32	37	Lead Frame
AMPLA4012S-1R0MT	1.0	20	4.0	6.0	41	47	Lead Frame
AMPLA4012S-1R2MT	1.2	20	3.5	5.0	48	56	Lead Frame
AMPLA4012S-1R5MT	1.5	20	3.0	4.0	55	63.3	Lead Frame
AMPLA4012S-2R2MT	2.2	20	2.8	3.5	69.2	80	Lead Frame
AMPLA4012S-3R3MT	3.3	20	2.3	3.0	84	97	Lead Frame
AMPLA4012S-4R7MT	4.7	20	2.0	2.5	128	145	Lead Frame
AMPLA4012S-5R6MT	5.6	20	1.7	2.3	180	208	Lead Frame
AMPLA4012S-6R8MT	6.8	20	1.5	1.7	300	360	Lead Frame
AMPLA4012S-8R2MT	8.2	20	1.4	1.6	313	376	Lead Frame
AMPLA4012S-100MT	10	20	1.3	1.4	410	463	Lead Frame
AMPLA4012S-220MT	22.0	20	0.8	1.0	950	1050	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

AMPLA4012S	—	1R0	M	T
Series		Inductance*	Tol. ¹	Packaging ²

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

2. Packaging: B = Bulk
T = Tape and Reel (4,000pcs/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

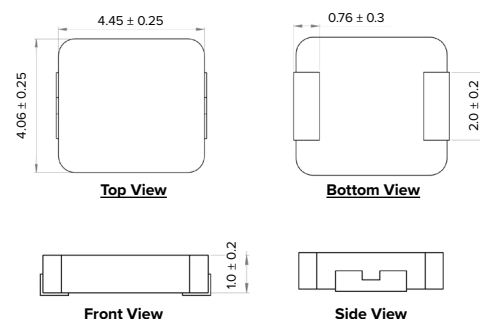
Wire: Copper

Terminal: Tin Plating

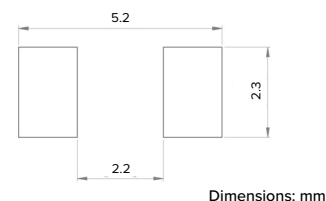
Ink: Black

Paint: Gray

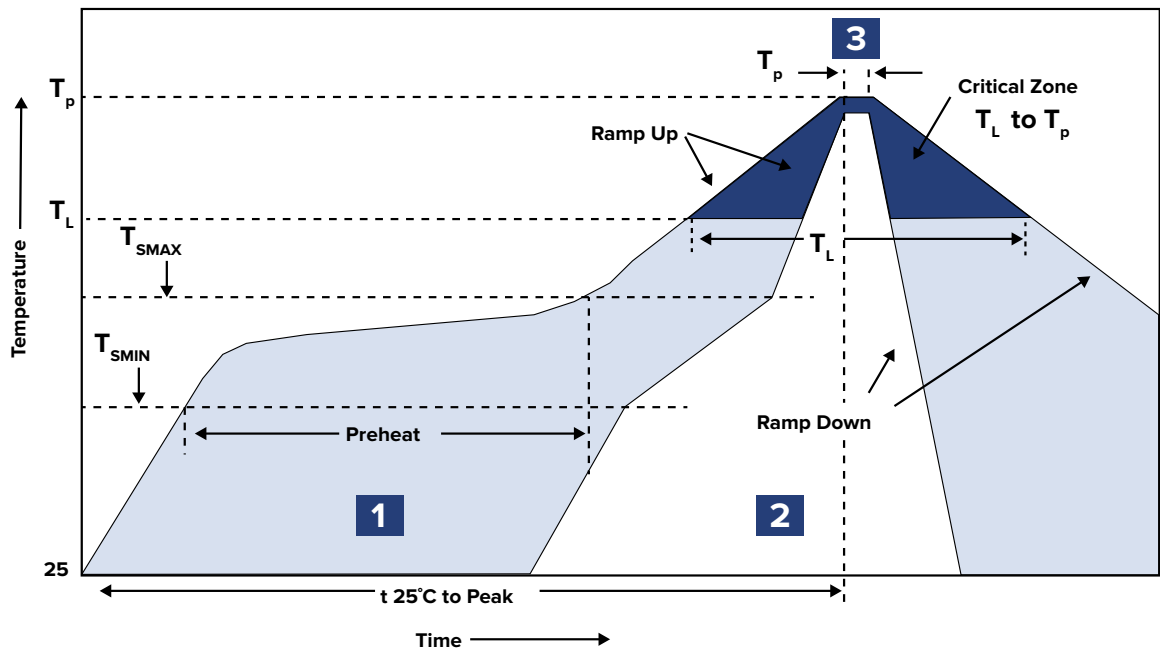
PRODUCT DIMENSIONS



RECOMMENDED LANDING PATTERN



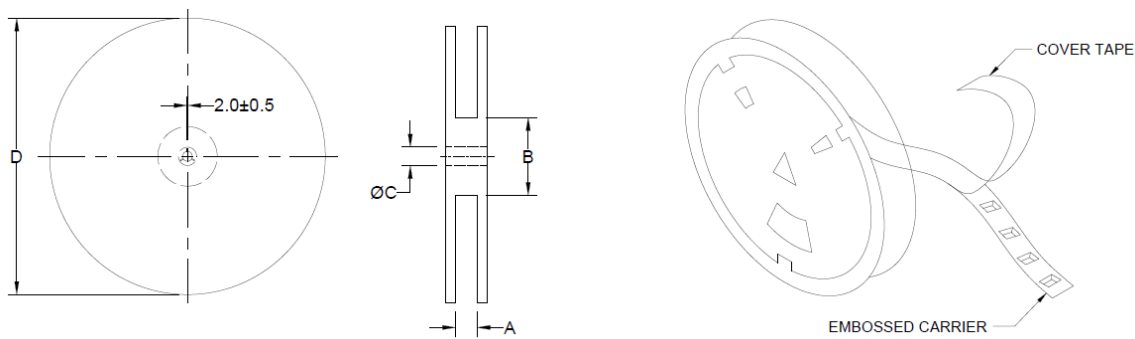
RECOMMENDED REFLOW PROFILE



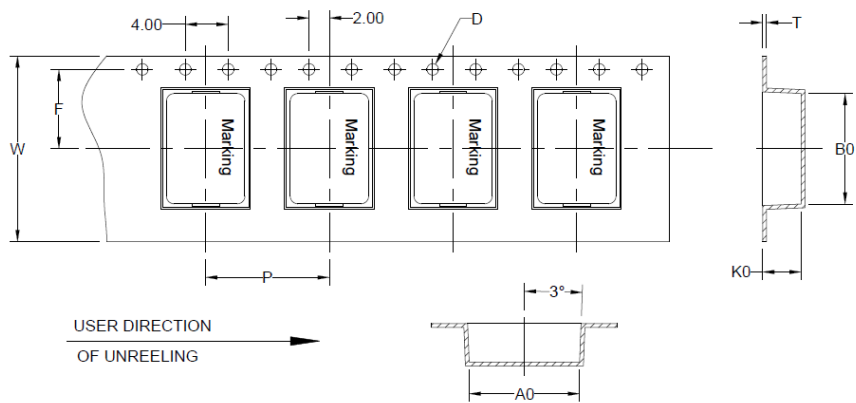
ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak Heat	T_P 260°C	10 sec. MAX

PACKAGING

Tape and Reel: 4,000
Units per Carton: 32,000
T&R per Carton: 8
Weight per Carton: 10.7 kg
Weight per Unit: 0.105 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 ₀	A ₀	K ₀	P	W	F	T	D
5.0 ± 0.1	4.1 ± 0.1	1.5 ± 0.1	8.0 ± 0.1	12.0 ± 0.3	5.5 ± 0.1	0.35 ± 0.05	1.5

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.