# **AMDLA4012S MOLDED INDUCTOR**



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## **FEATURES**

- Shielded construction
- Soft saturation
- Low DCR per cubic mm
- Designed for switching frequencies between 100KHz-5MHz
- Automotive option available upon request





## **ELECTRICAL SPECIFICATIONS @ 25°C**

PART NUMBER*	INDUCTANCE (uH)	TOLERANCE (%)	IRMS (A)	ISAT (A)	DC RESISTANCE (mΩ)		TYPE
	(un)				TYP	MAX	
AMDLA4012S-R33MT	0.33	20	10	14	12	14.5	Lead Frame
AMDLA4012S-R47MT	0.47	20	8.8	13	16.8	20	Lead Frame
AMDLA4012S-R68MT	0.68	20	6.0	9.0	19	23	Lead Frame
AMDLA4012S-1R0MT	1.0	20	5.2	7.8	36.5	43	Lead Frame
AMDLA4012S-1R5MT	1.5	20	4.2	6.2	54.5	62	Lead Frame
AMDLA4012S-2R2MT	2.2	20	3.5	5.5	72	80	Lead Frame
AMDLA4012S-3R3MT	3.3	20	2.8	4.5	97	111	Lead Frame
AMDLA4012S-4R7MT	4.7	20	2.2	3.2	119	143	Lead Frame

<sup>\*</sup> Please refer to Part Identification section

#### **Test Conditions**

Inductance: 1 MHz, 1 V, 0 Adc Humidity Range: 85 ± 2% RH

Temperature Rise Current: Current measured at  $\Delta$  T of 40°C Saturation Current: Current measured at  $\Delta$  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: -20°C to +65°C

MSL: Level 1

#### **MATERIALS**

Metal Alloy Core: Wire: Copper Terminal: Tin Plating Black Ink:

### PART BUILDER

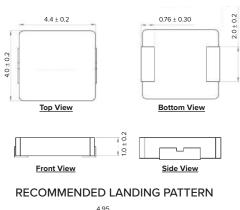


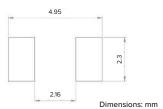
**1. Tolerance:** M = 20%

2. Packaging: B = Bulk

T = Tape and Reel (4,000pcs/reel)

# PRODUCT DIMENSIONS



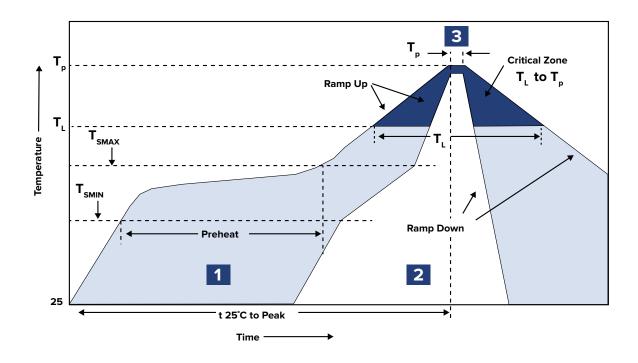




<sup>\*</sup>Refer to Electrical Specification table



# **RECOMMENDED REFLOW PROFILE**



ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	T <sub>smin</sub> ~ T <sub>smax</sub> 150°C ~ 180°C	60 ~ 120 sec.
2	Reflow	T <sub>∟</sub> 230°C	30 ~ 40 sec.
3	Peak Heat	T <sub>P</sub> 250°C+0/-5°C	10 sec. MAX





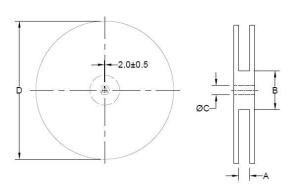
# **PACKAGING**

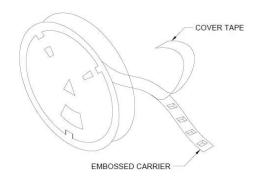
Tape and Reel: 4,000 Units per Carton: 32,000

T&R per Carton: 8

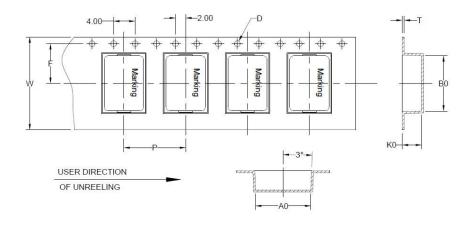
Weight per Carton: 13.5 kg Weight per Unit: 0.34 g

Carton Dimensions: 360 x 360 x 400 mm





TYPE	А	В	С	D
13" x 12 mm	12.4 +2/-0	100.0 ± 0.5	13.0 +0.5/-0.2	330.0



E	3,	A <sub>o</sub>	K <sub>o</sub>	Р	W	F	T	D
4.85	± 0.10	4.45 ± 0.10	$1.40 \pm 0.10$	$8.00 \pm 0.10$	$12.00 \pm 0.30$	$5.50 \pm 0.10$	$0.30 \pm 0.05$	1.50

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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