

Molded Inductor



AMPLA7012Q

Request Samples



Check Inventory



7.0 x 6.6 x 1.0 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- AEC-Q200 Qualified
- Shielded construction
- Soft saturation
- Low DCR per cubic mm
- Designed for switching frequencies between 100KHz-2MHz

Applications

- Body electronics and comfort system
- Infotainment and entertainment
- Electric vehicles
- Lighting
- Solar inverters and power
- Industrial and robotics
- Medium and high-power switch mode power supplies

Electrical Specifications

Part Number*	Inductance (uH)	Tolerance (%)	Irms (A)	Isat (A)	DC Resistance (mΩ)		Type
					Typ	Max	
AMPLA7012Q-R10NT	0.10	30	16	30	3.3	4.0	Lead Frame
AMPLA7012Q-R15NT	0.15	30	14	24	4.9	5.7	Lead Frame
AMPLA7012Q-R22NT	0.22	30	11	19	6.5	7.5	Lead Frame
AMPLA7012Q-R33MT	0.33	20	9.5	16	9.0	10	Lead Frame
AMPLA7012Q-R47MT	0.47	20	8.5	12	13	17	Lead Frame
AMPLA7012Q-R68MT	0.68	20	7.0	9.0	17	19	Lead Frame
AMPLA7012Q-1R0MT	1	20	6.0	7.0	27	30	Lead Frame
AMPLA7012Q-1R2MT	1.2	20	5.0	6.8	31	36	Lead Frame
AMPLA7012Q-1R5MT	1.5	20	4.5	6.5	35	40	Lead Frame
AMPLA7012Q-2R2MT	2.2	20	4.0	5.0	53	61	Lead Frame
AMPLA7012Q-3R3MT	3.3	20	3.2	4.0	90	103	Lead Frame
AMPLA7012Q-4R7MT	4.7	20	2.5	3.8	130	150	Lead Frame
AMPLA7012Q-6R8MT	6.8	20	2.1	3.0	172	198	Lead Frame
AMPLA7012Q-100MT	10	20	1.8	2.5	280	290	Lead Frame
AMPLA7012Q-180MT	18	20	1.35	2	490	540	Lead Frame
AMPLA7012Q-220MT	22	20	1.2	1.7	540	600	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 when ΔT of 40°C

Saturation Current: Current measured when ΔL of 30%

General Specifications

Operating Temperature: -55°C to +125°C with (40°C rise) Irms current.

Maximum Part Temperature: +125°C

Tape and Reel packaging Temperature: -10°C to +40°C

AMPLA7012Q series is RoHS/ RoHS II Compliant and Pb free.

AEC-Q200 Qualified



5101 Hidden Creek Ln Spicewood TX 78669
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ABRACON IS
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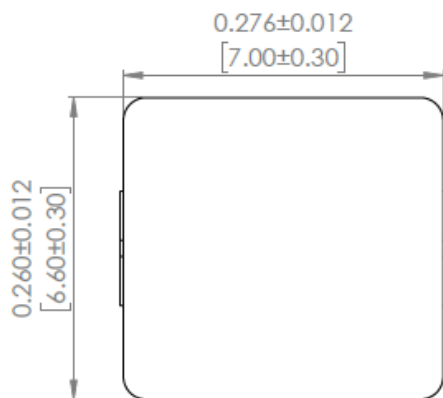


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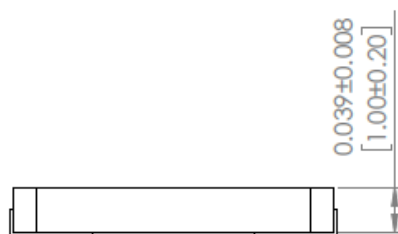


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Mechanical Specifications

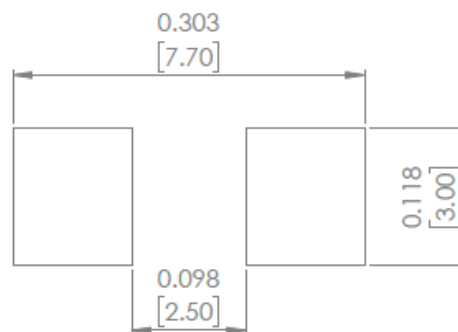


TOP VIEW

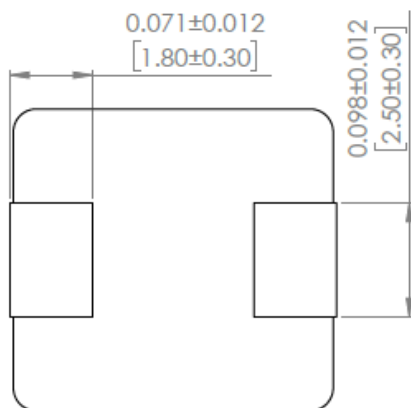


FRONT VIEW

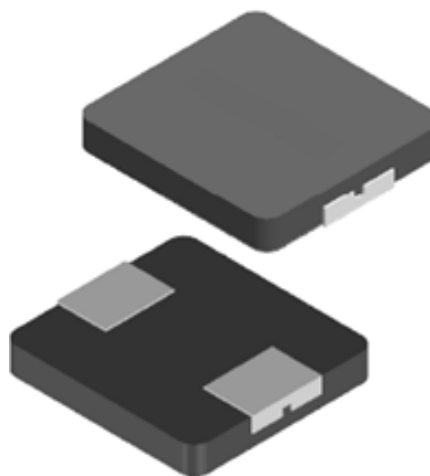
RECOMMENDED LAND PATTERN



SIDE VIEW



BOTTOM VIEW



Dimensions: inch/[mm]

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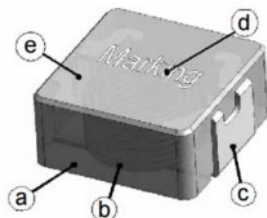


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Mechanical Specifications



- (a) Core
- (b) Wire
- (c) Terminal
- (d) Ink
- (e) Paint

Part Identification

AMPLA7012Q –

Inductance Code
Refer to Electrical Specification table E.g. 1R0

Tolerance
M: 20%
N: 30%

Packaging
T: 3,000 pcs/reel

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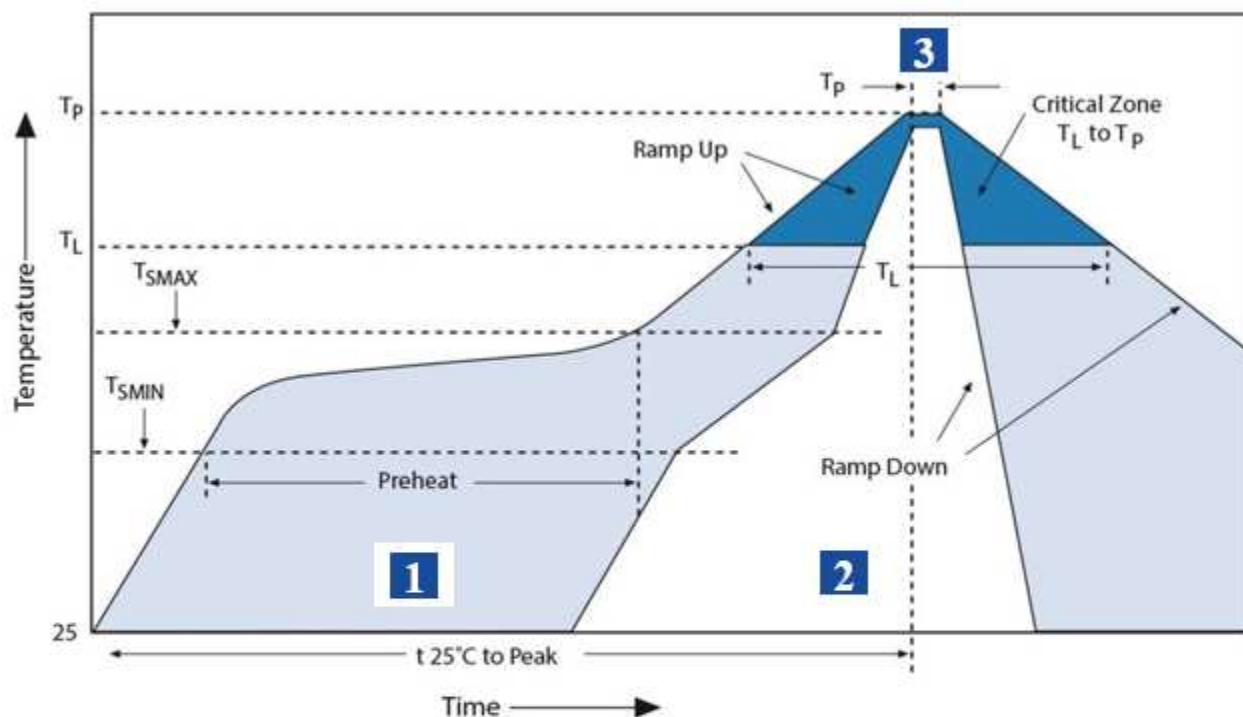


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Reflow Profile



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

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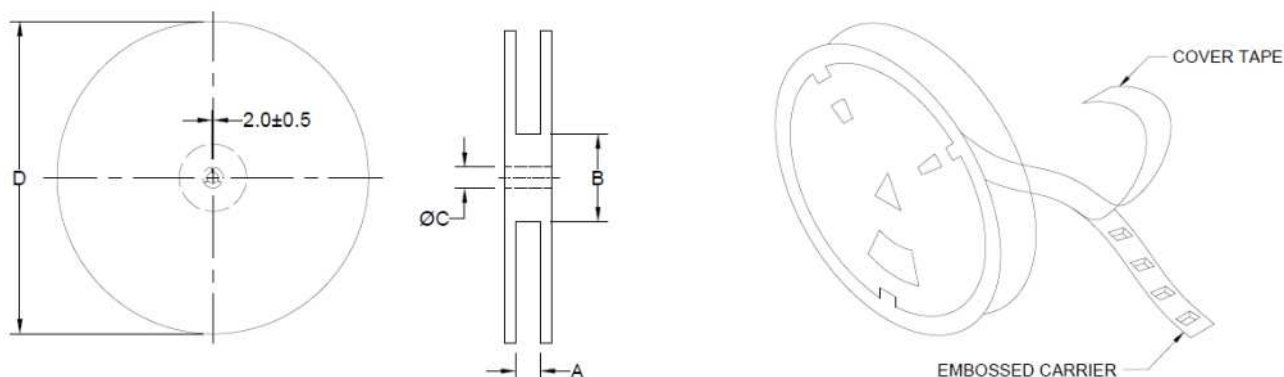
Check Inventory



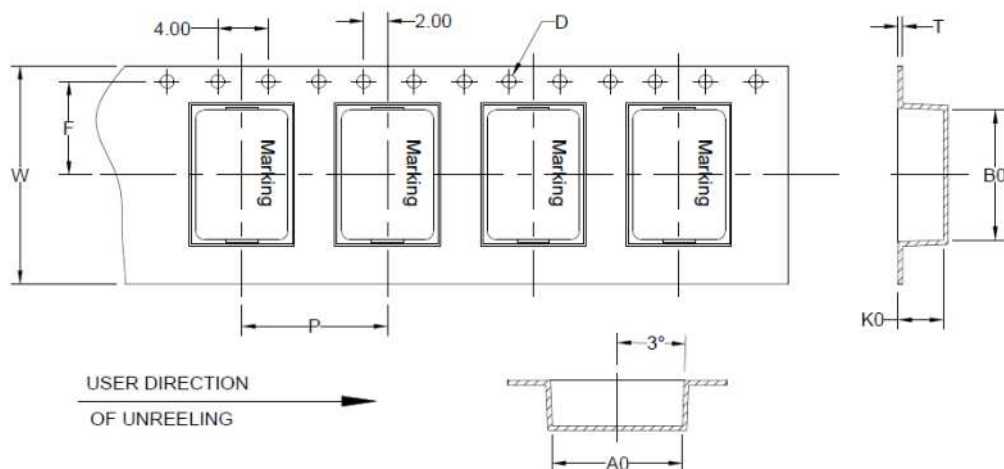
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Packaging

T: Tape and Reel (3,000 pcs/reel)



Type	A	B	C	D
13" x 16 mm	16.4 +2/-0	100 ± 2.0	13.0 +0.5/-0.2	330



B ₀	A ₀	K ₀	P	W	F	T	D
7.7 ± 0.1	7.0 ± 0.1	1.5 ± 0.1	12.0 ± 0.1	16.0 ± 0.3	7.5 ± 0.1	0.35 ± 0.05	1.5 ± 0.1

Dimensions: mm

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