

Miniature Ferrite Multilayer Power Inductor



AIML-0402HP

Request Samples



Check Inventory



1.0 x 0.5 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Monolithic structure for higher reliability, compact size, & lightweight
- Magnetically shielded design to eliminate cross coupling
- Excellent solderability and heat resistance for reflow soldering
- Perfect shape for PCB mounting with no polarity

Applications

- AR/VR Headsets
- Hearing Aids
- Fitness Devices
- Medical Monitoring Devices
- GPS Asset Tracking

Electrical Specifications

Part Number	Inductance	Tolerance	DC Resistance	Saturation Current	Temperature Rise Current
	0.1MHz/1.0V		Max	Typ.	Typ.
Units	μH	%	Ω	mA	mA
Symbol	L	M,K	DCR	Isat	Irms
AIML-0402HP-77N	0.077	M, K	0.27	900	700
AIML-0402HP-96N	0.096	M, K	0.35	750	600
AIML-0402HP-R10	0.10	M, K	0.35	700	600
AIML-0402HP-R11	0.11	M, K	0.39	650	500
AIML-0402HP-R12	0.12	M, K	0.39	650	500
AIML-0402HP-R13	0.13	M, K	0.39	600	500
AIML-0402HP-R14	0.14	M, K	0.45	600	450
AIML-0402HP-R15	0.15	M, K	0.45	600	450
AIML-0402HP-R16	0.16	M, K	0.52	550	400
AIML-0402HP-R18	0.18	M, K	0.58	500	400
AIML-0402HP-R20	0.20	M, K	0.58	480	400
AIML-0402HP-R22	0.22	M, K	0.58	480	400
AIML-0402HP-R27	0.27	M, K	0.65	450	350
AIML-0402HP-R33	0.33	M, K	0.65	400	350
AIML-0402HP-R39	0.39	M, K	0.97	400	300
AIML-0402HP-R47	0.47	M, K	0.97	300	300
AIML-0402HP-R56	0.56	M, K	1.4	300	250
AIML-0402HP-1R0	1.0	M, K	0.39	150	500
AIML-0402HP-2R2	2.2	M, K	0.55	100	350



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11/25/2024

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Test Conditions

Isat: DC current at which the inductance drops 30% from its value without current.

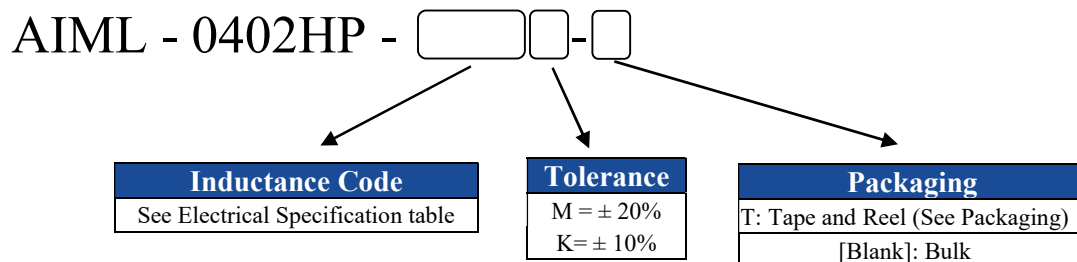
Irms: DC current that causes the temperature rise (ΔT , approximate 40 °C) from 20°C ambient

Operating Temperature: -45°C ~ +125°C (including self-temperature rise)

Storage Condition: -10°C ~ +40°C (with packaging) and R.H. 70% max

AIML-0402HP Series is **RoHS Compliant and Pb free**

Part Identification



Miniature Ferrite Multilayer Power Inductor



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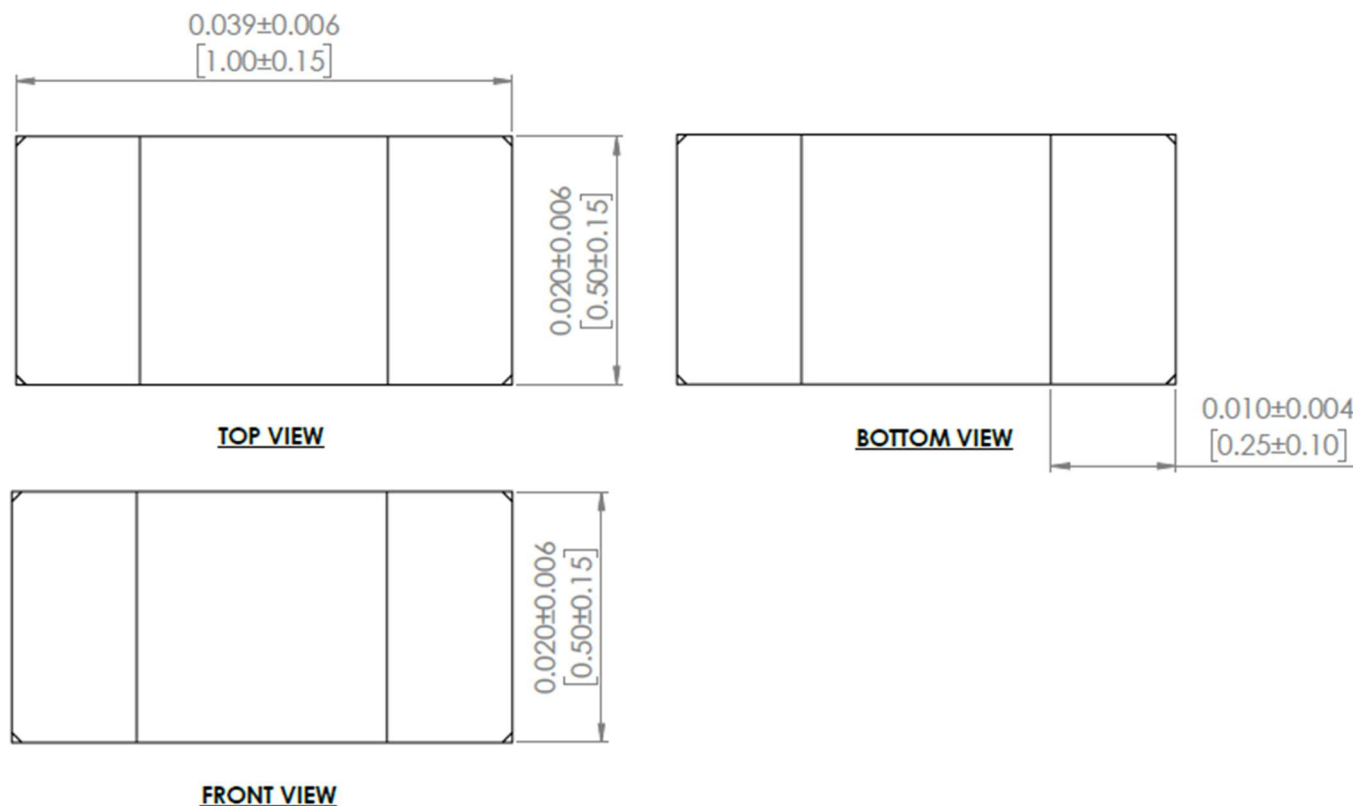


Check Inventory

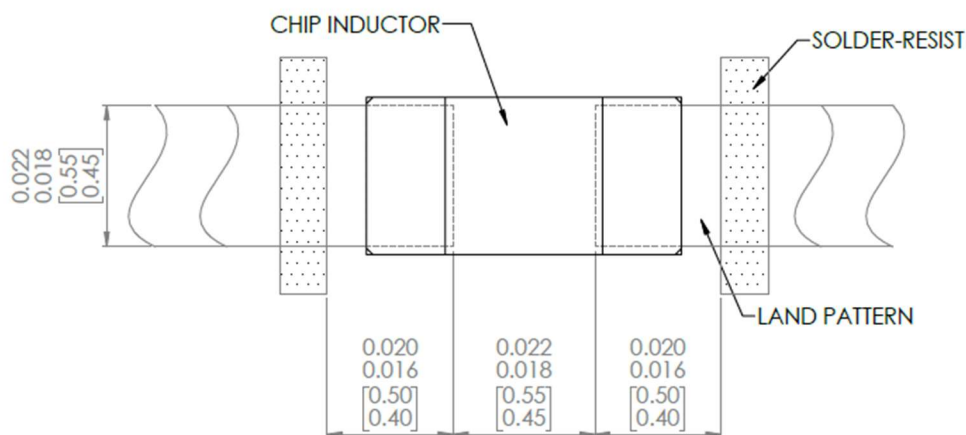


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Mechanical Specifications



Recommended Land Pattern



Dimensions: Inches [mm]



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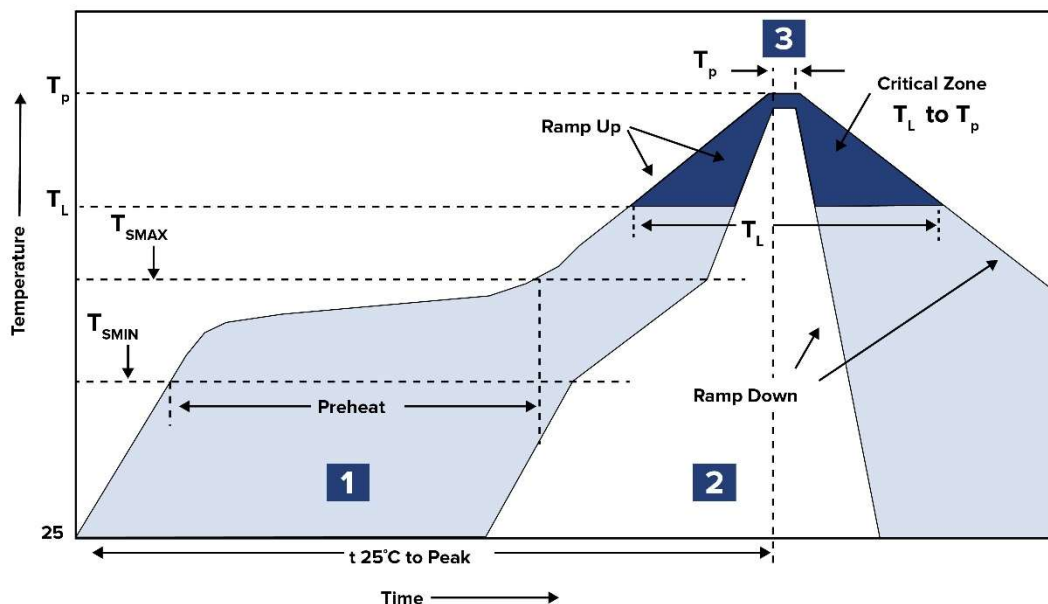


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L 217°C	60 ~ 90 sec.
3	Peak heat	T_P 260°C	10 sec. MAX

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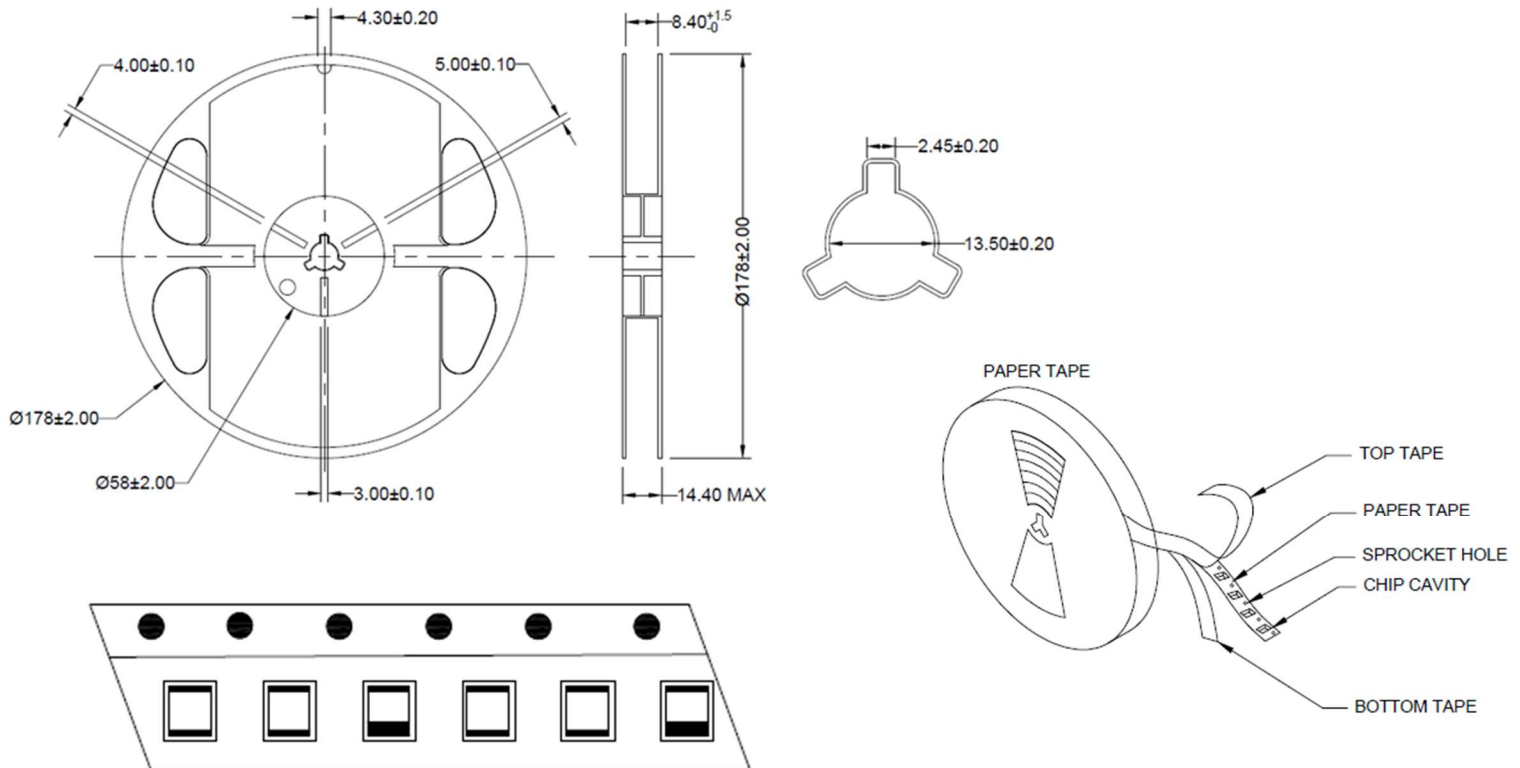
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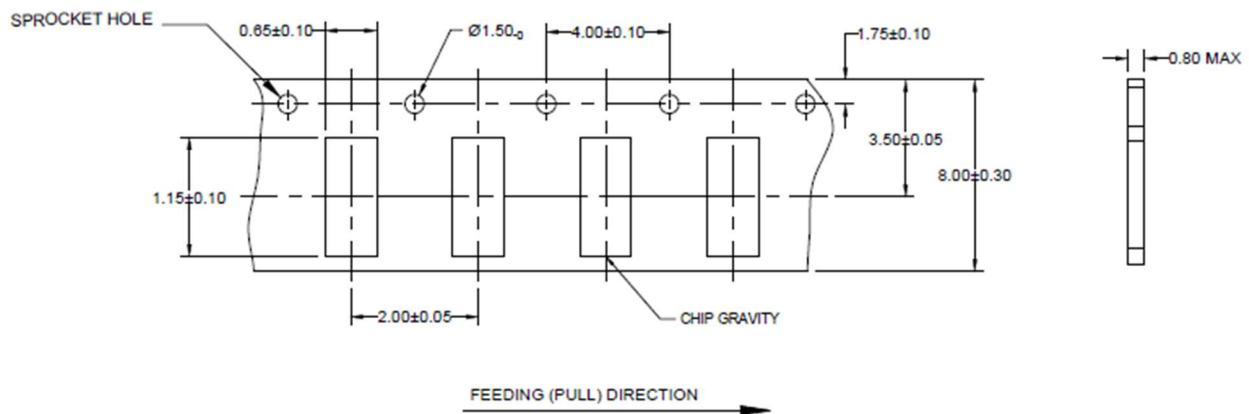
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Packaging

Tape & Reel: 10,000 pcs/reel



REMARK: The Sprocket holes are to the right as the tape is pulled toward the user



Unit: mm

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf (COTS), which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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