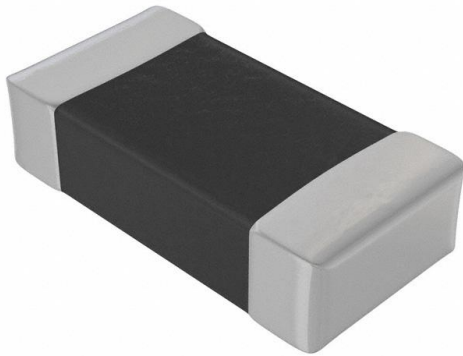


AIML-1206-R047M-T Datasheet

www.digi-electronics.com



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DiGi Electronics Part Number	AIML-1206-R047M-T-DG
Manufacturer	Abracon LLC
Manufacturer Product Number	AIML-1206-R047M-T
Description	FIXED IND 47NH 300MA 150MOHM SMD
Detailed Description	47 nH Shielded Multilayer Inductor 300 mA 150mOhm Max 1206 (3216 Metric)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:

AIML-1206-R047M-T

Series:

AIML-1206

Type:

Multilayer

Inductance:

47 nH

Current Rating (Amps):

300 mA

Shielding:

Shielded

Q @ Freq:

30 @ 50MHz

Ratings:

-

Inductance Frequency - Test:

50 MHz

Package / Case:

1206 (3216 Metric)

Size / Dimension:

0.126" L x 0.063" W (3.20mm x 1.60mm)

Manufacturer:

Abracon LLC

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

±20%

Current - Saturation (Isat):

-

DC Resistance (DCR):

150mOhm Max

Frequency - Self Resonant:

400MHz

Operating Temperature:

-55°C ~ 125°C

Mounting Type:

Surface Mount

Supplier Device Package:

1206

Height - Seated (Max):

0.055" (1.40mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

Multilayer Ferrite Chip Inductor



AIML-1206 Series

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3.2 x 1.6 x 0.85 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

- Resonance circuit, traps and filter circuits
- RF choke for cordless phones and radio equipment
- Communications, video and audio equipment, computers and remote Control.

Electrical Specifications

Part Number	L	Tolerance	Q	Test Frequency	SRF	DCR	Ir
	0.1MHz/1.0V		Min.				
Units	μH	%		MHz	MHz	Ω	mA
AIML-1206-R047	0.047	K, M	20	50	320	0.15	300
AIML-1206-R068	0.068	K, M	20	50	280	0.25	300
AIML-1206-R10	0.100	K	20	25	235	0.25	250
AIML-1206-R12	0.120	K	20	25	220	0.3	250
AIML-1206-R15	0.150	K	20	25	200	0.3	250
AIML-1206-R18	0.180	K	20	25	185	0.4	250
AIML-1206-R22	0.220	K	20	25	170	0.4	250
AIML-1206-R27	0.270	K	20	25	150	0.5	250
AIML-1206-R33	0.330	K	20	25	145	0.6	250
AIML-1206-R39	0.390	K	25	25	135	0.5	200
AIML-1206-R47	0.470	K	25	25	125	0.6	200
AIML-1206-R56	0.560	K	25	25	115	0.7	150
AIML-1206-R68	0.680	K	25	25	105	0.8	150
AIML-1206-R82	0.820	K	25	25	100	0.9	150
AIML-1206-1R0	1.0	K	45	10	75	0.40	100
AIML-1206-1R2	1.2	K	45	10	65	0.5	100
AIML-1206-1R5	1.5	K	45	10	60	0.5	50
AIML-1206-1R8	1.8	K	45	10	55	0.50	50
AIML-1206-2R2	2.2	K	45	10	50	0.6	50
AIML-1206-2R7	2.7	K	45	10	45	0.6	50
AIML-1206-3R3	3.3	K	45	10	41	0.7	50
AIML-1206-3R9	3.9	K	45	10	38	0.8	50
AIML-1206-4R7	4.7	K	45	10	35	0.9	50
AIML-1206-5R6	5.6	K	50	4	32	0.7	25



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Multilayer Ferrite Chip Inductor



AIML-1206 Series

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3.2 x 1.6 x 0.85 mm
RoHS/RoHS II Compliant
 MSL Level = 1

Part Number	L	Tolerance	Q	Test Frequency	SRF	DCR	Ir
	0.1MHz/1.0V		Min.				
Units	μH	%		MHz	MHz	Ω	mA
AIML-1206-6R8	6.8	K	50	4	29	0.8	25
AIML-1206-8R2	8.2	K	50	4	26	0.9	25
AIML-1206-100	10.0	K	50	2	24	1	25
AIML-1206-120	12.0	K	50	2	22	1.05	15
AIML-1206-150	15.0	K	35	1	19	0.7	5
AIML-1206-180	18.0	K	35	1	18	0.7	5
AIML-1206-220	22.0	K	35	1	16	0.90	5
AIML-1206-270	27.0	K	35	1	14	0.90	5
AIML-1206-330 ^s	33.0	K	35	1	13	1.05	5
AIML-1206-390 ^s	39.0	K	40	1	11	3	5
AIML-1206-470 ^s	47.0	K	40	1	10	3.4	5

^s Height of this component is 1.10 ±0.2mm [0.043 ±0.008 inches]

Test Conditions and equipment

Q: HP4291 Impedance Analyzer, 50mV

DCR: HP4263A LCR meter

SRF: HP4291 Impedance analyzer

Ir: HP4291 Impedance Analyzer, DC power HP6632 and Adapter HP16200. ΔL/L (initial) ≥ -5%

Unless otherwise specified

Temperature: Ordinary Temperature (5 to 35°C)

Humidity: Ordinary Humidity (25 to 85% RH)

AIML-1206 Series is RoHS Compliant and Pb free

Part Identification

AIML-1206-150R2-K-T-M

AIML - 1206 - [] [] - []

Inductance Code

See Electrical Specification table

Tolerance

K = ± 10%
 M = ± 20%

Packaging

T: Tape and Reel (See Packaging)



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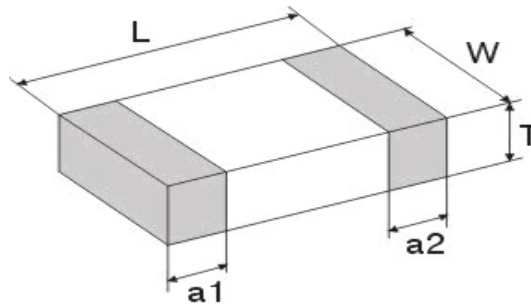
Check Inventory



3.2 x 1.6 x 0.85 mm
RoHS/RoHS II Compliant
MSL Level = 1

No Marking

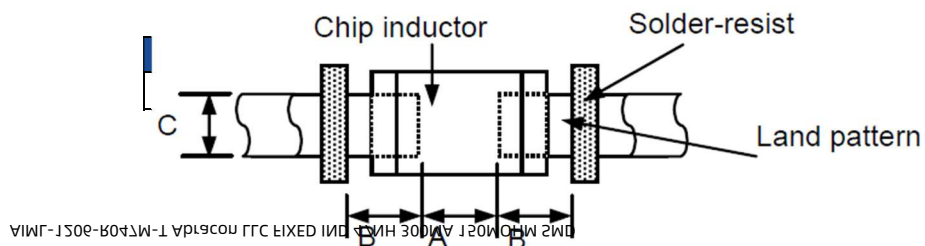
Mechanical Specifications



Series	L	W	T	a1, a2
AIML-1206	3.20±0.20	1.60±0.20	0.85±0.2	0.50±0.30
	[0.126±0.008]	[0.063±0.008]	[0.033±0.008]	[0.02±0.012]

Note: Height of AIML-1206-330, AIML-1206-390, and AIML-1206-470 is 1.10 ±0.2mm [0.043 ±0.008 inches]

Dimensions: mm[inch]



Materials



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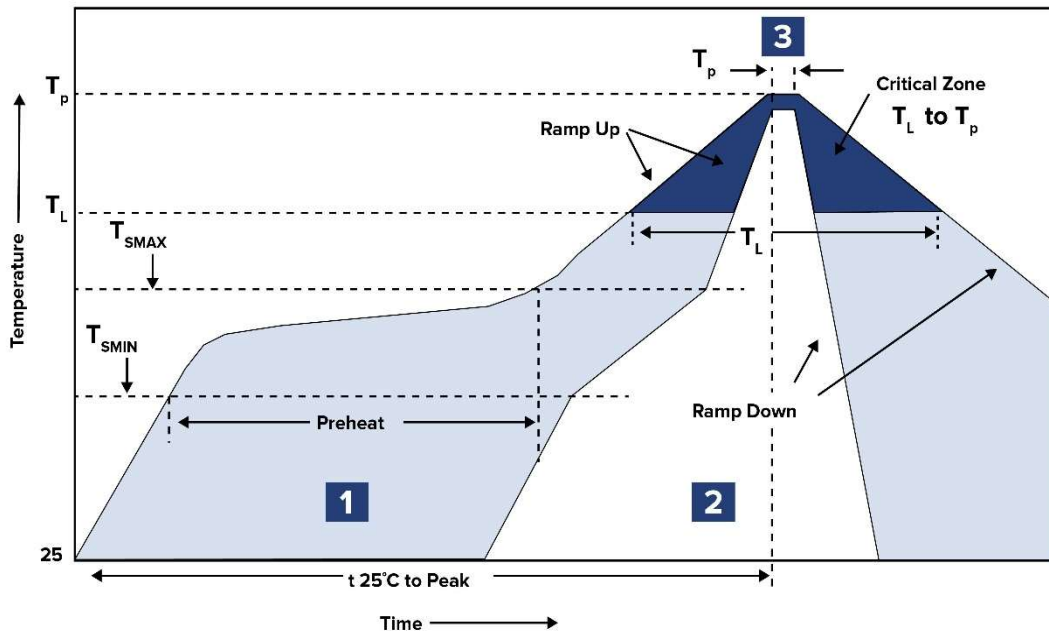
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3.2 x 1.6 x 0.85 mm
RoHS/RoHS II Compliant
MSL Level = 1

	Components	Material
1	Base Material	Ferrite (Ni-Cu-Zn series)
2	Internal Conductor	Ag
3	Terminal Electrode	Ag
4	Terminal Electrode	Ni-Sn

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	3 ~ 4 sec. MAX

Packaging



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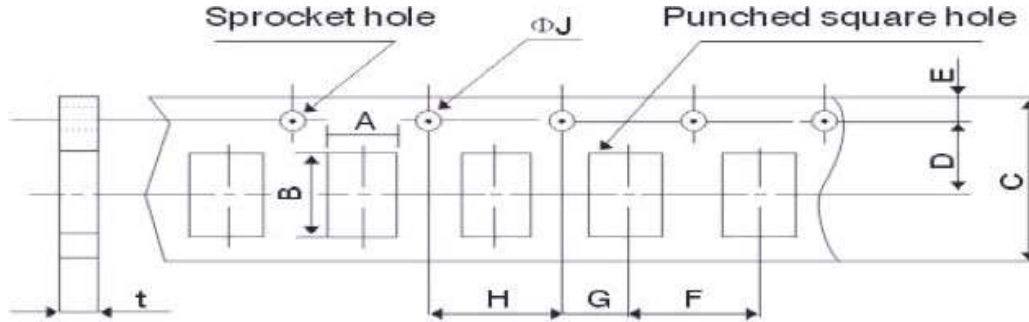


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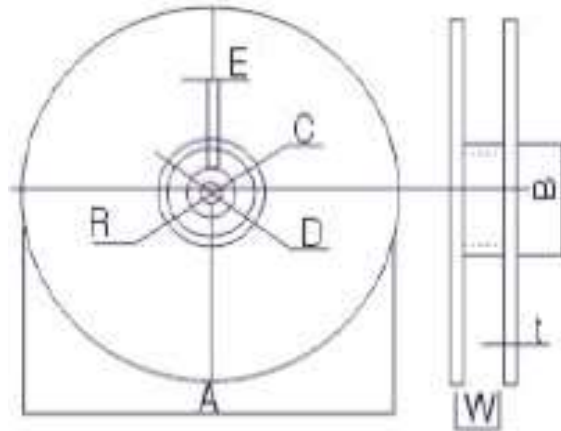


3.2 x 1.6 x 0.85 mm
RoHS/RoHS II Compliant
MSL Level = 1

Tape & Reel: 3,000 pcs/reel



Codes	A	B	C	D	E	F	G	H	ΦJ	t(max)
AIML-1206	2.0±0.2	3.6±0.2	8.0±0.3	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1	1.5+0.1/-0	2.0±0.05



A	B	C	D	E	W	t	R
178±2	60±2	13.0±0.5	21.0±0.8	2.0±0.5	10.0±1.15	1.2±0.2	1.0±0.25

2M2 2MOH2I 300M 4P4H 4M 4C 4D 4E 4F 4G 4H 4I 4J 4K 4L 4M 4N 4O 4P 4Q 4R 4S 4T 4U 4V 4W 4X 4Y 4Z 4AA 4AB 4AC 4AD 4AE 4AF 4AG 4AH 4AI 4AJ 4AK 4AL 4AM 4AN 4AO 4AP 4AQ 4AR 4AS 4AT 4AU 4AV 4AW 4AX 4AY 4AZ 4BA 4BB 4BC 4BD 4BE 4BF 4BG 4BH 4BI 4BJ 4BK 4BL 4BM 4BN 4BO 4BP 4BQ 4BR 4BS 4BT 4BU 4BV 4BW 4BX 4BY 4BZ 4CA 4CB 4CC 4CD 4CE 4CF 4CG 4CH 4CI 4CJ 4CK 4CL 4CM 4CN 4CO 4CP 4CQ 4CR 4CS 4CT 4CU 4CV 4CW 4CX 4CY 4CZ 4DA 4DB 4DC 4DD 4DE 4DF 4DG 4DH 4DI 4DJ 4DK 4DL 4DM 4DN 4DO 4DP 4DQ 4DR 4DS 4DT 4DU 4DV 4DW 4DX 4DY 4DZ 4EA 4EB 4EC 4ED 4EE 4EF 4EG 4EH 4EI 4EJ 4EK 4EL 4EM 4EN 4EO 4EP 4EQ 4ER 4ES 4ET 4EU 4EV 4EW 4EX 4EY 4EZ 4FA 4FB 4FC 4FD 4FE 4FF 4FG 4FH 4FI 4FJ 4FK 4FL 4FM 4FN 4FO 4FP 4FQ 4FR 4FS 4FT 4FU 4FV 4FW 4FX 4FY 4FZ 4GA 4GB 4GC 4GD 4GE 4GF 4GG 4GH 4GI 4GJ 4GK 4GL 4GM 4GN 4GO 4GP 4GQ 4GR 4GS 4GT 4GU 4GV 4GW 4GX 4GY 4GZ 4HA 4HB 4HC 4HD 4HE 4HF 4HG 4HH 4HI 4HJ 4HK 4HL 4HM 4HN 4HO 4HP 4HQ 4HR 4HS 4HT 4HU 4HV 4HW 4HX 4HY 4HZ 4IA 4IB 4IC 4ID 4IE 4IF 4IG 4IH 4II 4IJ 4IK 4IL 4IM 4IN 4IO 4IP 4IQ 4IR 4IS 4IT 4IU 4IV 4IW 4IX 4IY 4IZ 4JA 4JB 4JC 4JD 4JE 4JF 4JG 4JH 4JI 4JJ 4JK 4JL 4JM 4JN 4JO 4JP 4JQ 4JR 4JS 4JT 4JU 4JV 4JW 4JX 4JY 4JZ 4KA 4KB 4KC 4KD 4KE 4KF 4KG 4KH 4KI 4KJ 4KK 4KL 4KM 4KN 4KO 4KP 4KQ 4KR 4KS 4KT 4KU 4KV 4KW 4KX 4KY 4KZ 4LA 4LB 4LC 4LD 4LE 4LF 4LG 4LH 4LI 4LJ 4LK 4LL 4LM 4LN 4LO 4LP 4LQ 4LR 4LS 4LT 4LU 4LV 4LW 4LX 4LY 4LZ 4MA 4MB 4MC 4MD 4ME 4MF 4MG 4MH 4MI 4MJ 4MK 4ML 4MN 4MO 4MP 4MQ 4MR 4MS 4MT 4MU 4MV 4MW 4MX 4MY 4MZ 4NA 4NB 4NC 4ND 4NE 4NF 4NG 4NH 4NI 4NJ 4NK 4NL 4NM 4NN 4NO 4NP 4NQ 4NR 4NS 4NT 4NU 4NV 4NW 4NX 4NY 4NZ 4OA 4OB 4OC 4OD 4OE 4OF 4OG 4OH 4OI 4OJ 4OK 4OL 4OM 4ON 4OO 4OP 4OQ 4OR 4OS 4OT 4OU 4OV 4OW 4OX 4OY 4OZ 4PA 4PB 4PC 4PD 4PE 4PF 4PG 4PH 4PI 4PJ 4PK 4PL 4PM 4PN 4PO 4PP 4PQ 4PR 4PS 4PT 4PU 4PV 4PW 4PX 4PY 4PZ 4QA 4QB 4QC 4QD 4QE 4QF 4QG 4QH 4QI 4QJ 4QK 4QL 4QM 4QN 4QO 4QP 4QQ 4QR 4QS 4QT 4QU 4QV 4QW 4QX 4QY 4QZ 4RA 4RB 4RC 4RD 4RE 4RF 4RG 4RH 4RI 4RJ 4RK 4RL 4RM 4RN 4RO 4RP 4RQ 4RR 4RS 4RT 4RU 4RV 4RW 4RX 4RY 4RZ 4SA 4SB 4SC 4SD 4SE 4SF 4SG 4SH 4SI 4SJ 4SK 4SL 4SM 4SN 4SO 4SP 4SQ 4SR 4SS 4ST 4SU 4SV 4SW 4SX 4SY 4SZ 4TA 4TB 4TC 4TD 4TE 4TF 4TG 4TH 4TI 4TJ 4TK 4TL 4TM 4TN 4TO 4TP 4TQ 4TR 4TS 4TT 4TU 4TV 4TW 4TX 4TY 4TZ 4UA 4UB 4UC 4UD 4UE 4UF 4UG 4UH 4UI 4UJ 4UK 4UL 4UM 4UN 4UO 4UP 4UQ 4UR 4US 4UT 4UU 4UV 4UW 4UX 4UY 4UZ 4VA 4VB 4VC 4VD 4VE 4VF 4VG 4VH 4VI 4VJ 4VK 4VL 4VM 4VN 4VO 4VP 4VQ 4VR 4VS 4VT 4VU 4VV 4VW 4VX 4VY 4VZ 4WA 4WB 4WC 4WD 4WE 4WF 4WG 4WH 4WI 4WJ 4WK 4WL 4WM 4WN 4WO 4WP 4WQ 4WR 4WS 4WT 4WU 4WV 4WW 4WX 4WY 4WZ 4XA 4XB 4XC 4XD 4XE 4XF 4XG 4XH 4XI 4XJ 4XK 4XL 4XM 4XN 4XO 4XP 4XQ 4XR 4XS 4XT 4XU 4XV 4XW 4XX 4XY 4XZ 4YA 4YB 4YC 4YD 4YE 4YF 4YG 4YH 4YI 4YJ 4YK 4YL 4YM 4YN 4YO 4YP 4YQ 4YR 4YS 4YT 4YU 4YV 4YW 4YX 4YY 4YZ 4ZA 4ZB 4ZC 4ZD 4ZE 4ZF 4ZG 4ZH 4ZI 4ZJ 4ZK 4ZL 4ZM 4ZN 4ZO 4ZP 4ZQ 4ZR 4ZS 4ZT 4ZU 4ZV 4ZW 4ZX 4ZY 4ZZ

Dimensions: mm

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