

HIGH-CURRENT MULTILAYER FERRITE CHIP BEAD

ACML-0402H

RoHS
Compliant



1.0 x 0.5 x 0.5mm

FEATURES:

- Multilayer monolithic structure yields high reliability
- Unique terminal electrode structure ensures permissible currents
- High impedance over a wide frequency range

TYPICAL APPLICATIONS:

- Video Equipment, Audio equipment
- Communication Equipment
- OA Equipment and other

STANDARD SPECIFICATIONS:

PARAMETERS	
ABRACON P/N:	ACML-0402H-xxx
Operating Temperature :	-55°C to +125°C
Storage Temperature:	-10°C to +40°C, 70% RH max

Part No.	Z (Ω) $\pm$ 25%	Z Test Freq.	DCR (Ω)	Ir (mA)
		(MHz)	(max)	(max)
ACML-0402H-100	0~15	100	0.03	1000
ACML-0402H-300	30	100	0.06	700
ACML-0402H-400	40	100	0.12	550
ACML-0402H-700	70	100	0.10	700
ACML-0402H-800	80	100	0.16	450
ACML-0402H-121	120	100	0.20	500
ACML-0402H-221	220	100	0.30	400
ACML-0402H-241	240	100	0.40	400
ACML-0402H-301	300	100	0.50	300
ACML-0402H-421	420	100	0.52	300
ACML-0402H-471	470	100	0.45	250
ACML-0402H-501	500	100	0.50	250
ACML-0402H-601	600	100	0.55	300
ACML-0402H-751	750	100	0.65	150
ACML-0402H-102	1000	100	0.58	300
ACML-0402H-152	1500	100	1.20	100

Test Conditions and equipments

Z: High Accuracy RF Impedance Analyzer –HP4291B, Test Fixture: HP16192A, -20dBm or 50mV

DCR: High Accuracy Milliohmmeter –HP4338B

Ir: Electric Power Supply, Electric Current Meter, Thermometer. $\Delta T \leq 20^\circ\text{C}$

Unless otherwise specified, the standard atmospheric conditions for measurement/test as:

- a. Ambient Temperature: $20 \pm 15^\circ\text{C}$
- b. Relative Humidity: $65\% \pm 20\%$
- c. Air Pressure: 86 KPa to 106 KPa

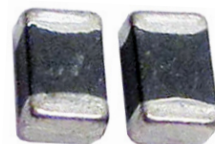
Visual Examination

- a. Inspection Equipment: 20X magnifier

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OPTIONS AND PART IDENTIFICATION

ACML-0402H- -

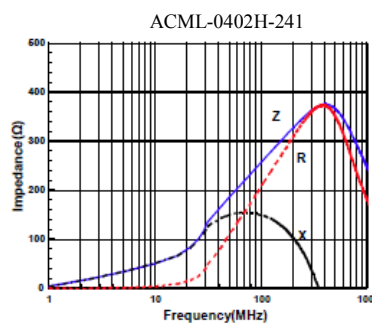
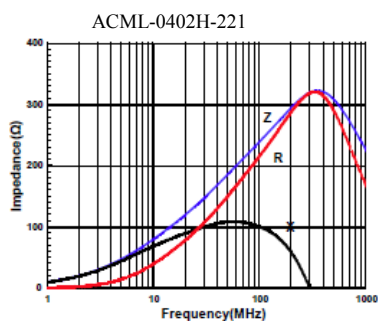
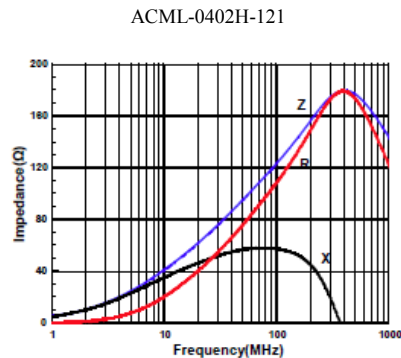
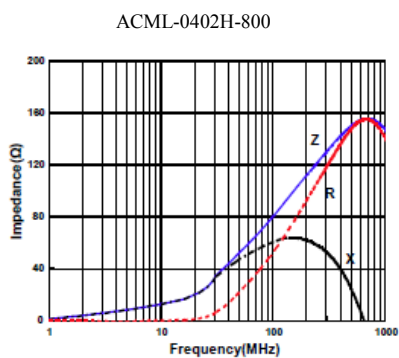
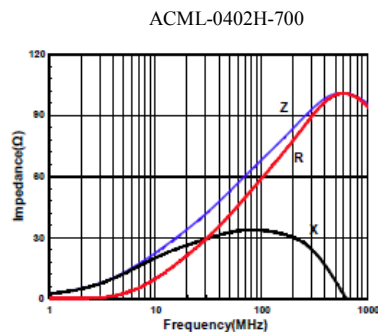
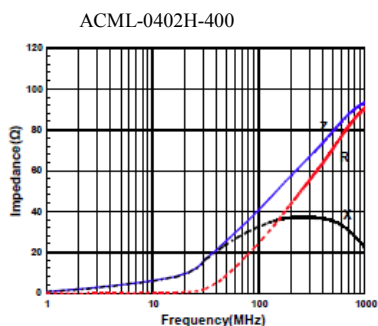
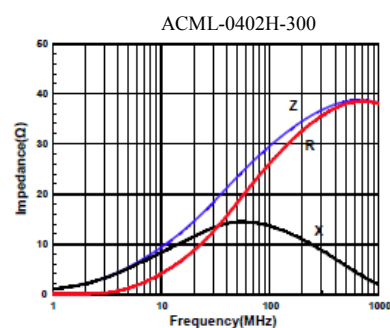
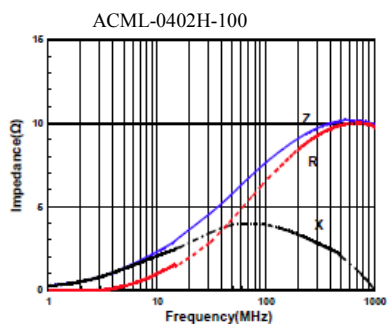
Impedance Code

Please refer to
Electrical Spec table

Packaging

T: Tape and Reel (10kpcs / reel)

FREQUENCY CHARACTERISTICS



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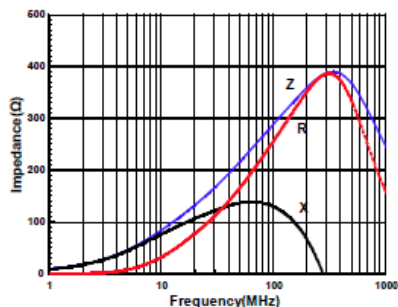
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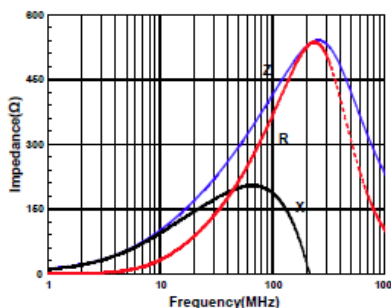
1.0 x 0.5 x 0.5mm

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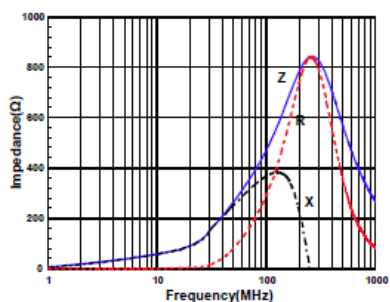
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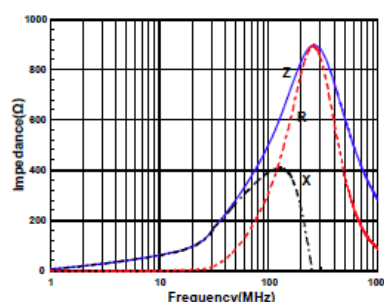
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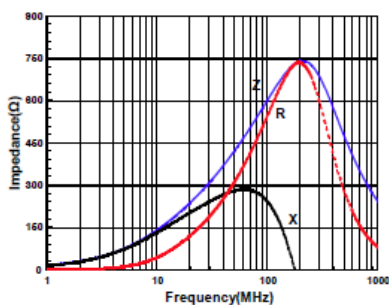
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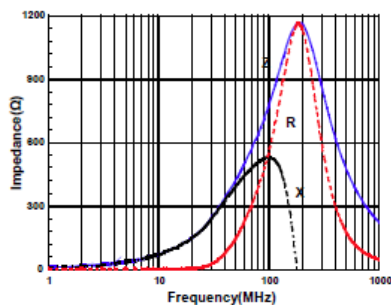
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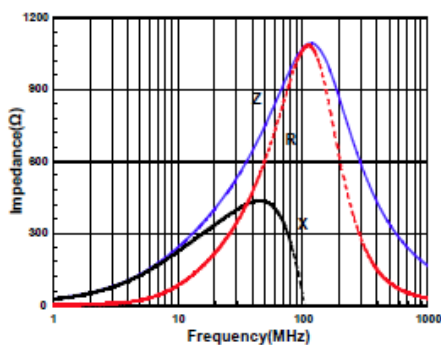
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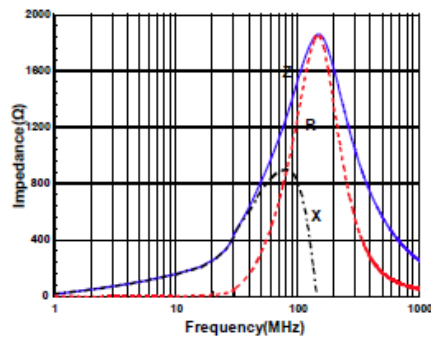
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ACML-0402H-102



ACML-0402H-152



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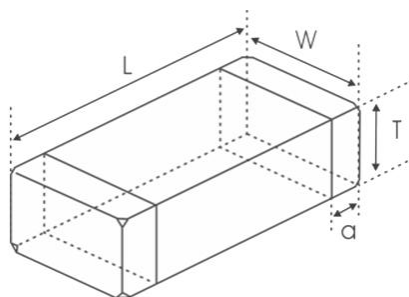
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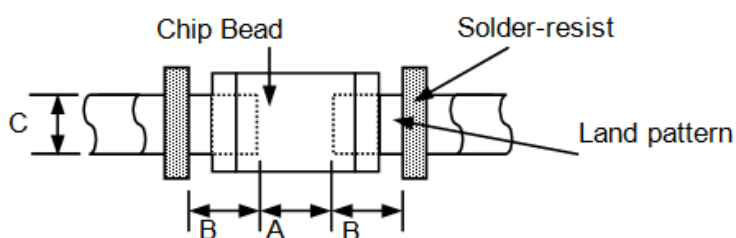
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OUTLINE DRAWING:



Series	L	W	T	a
ACML-0402H-xxx	1.0±0.15 [0.039±0.006]	0.5±0.15 [0.020±0.006]	0.5±0.15 [0.020±0.006]	0.25±0.10 [0.010±0.004]

Recommended Land Pattern

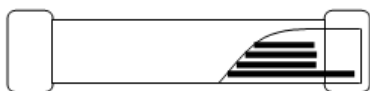


A	B	C
0.45~0.55	0.40~0.50	0.45~0.55

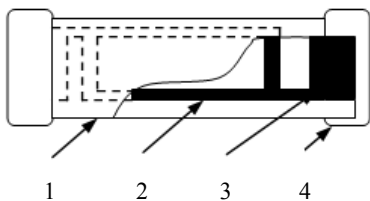
Dimension: mm [inch]

Materials

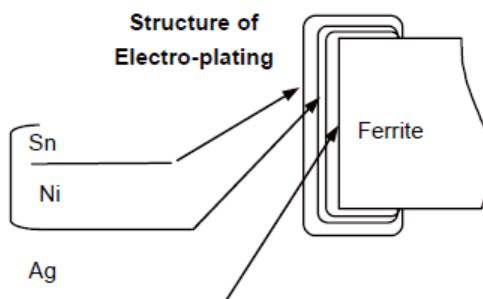
Side View



Top View



Structure of
Electro-plating

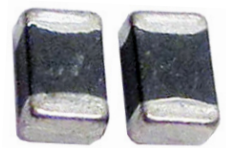


	Part Name	Material
1	Base Material	Ferrite
2	Internal Conductor	Ag
3	Pull out Electrode	Ag
4	Terminal Electrode	Ag (Inner layer) Ni-Sn (Outer layer)

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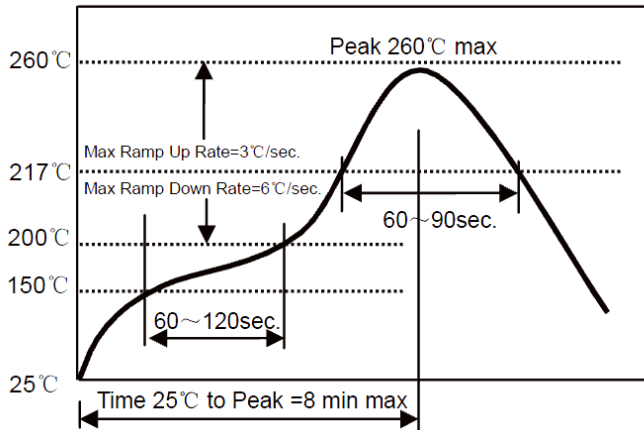
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REFLOW PROFILE:

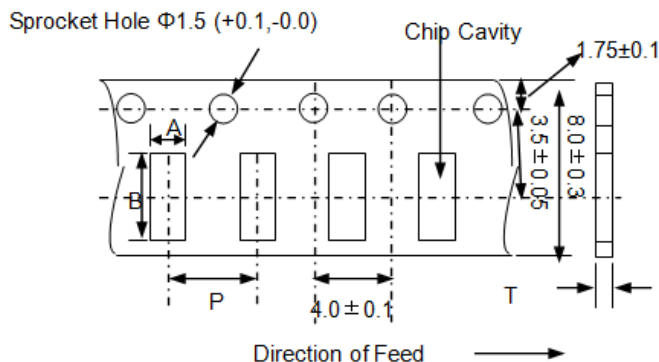


Preheat Condition	150 to 200 °C; 60 to 120 sec.
Allowed time above 217 °C	60 to 90 sec.
Max temperature	260 °C
Max time at max temperature	10 sec.
Solder paste	Sn/3.0Ag/0.5Cu
Allowed Reflow time	2x max.

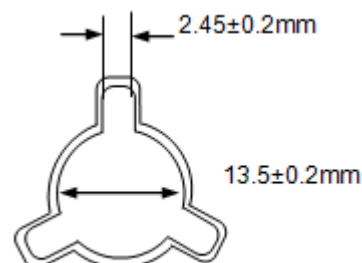
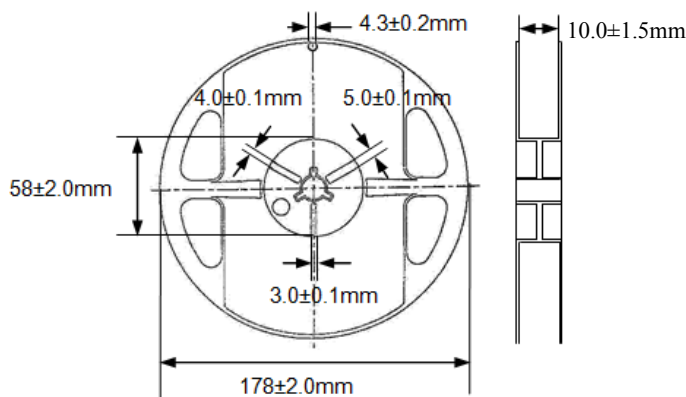
TAPE & REEL:

Packing

T: 10,000pcs / reel



A	B	P	t(max)
0.65±0.10	1.15±0.10	2.0±0.05	0.80



Dimension: mm

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ABRACON:

[ACML-0402H-060-T](#) [ACML-0402H-100-T](#) [ACML-0402H-101-T](#) [ACML-0402H-102-T](#) [ACML-0402H-110-T](#) [ACML-0402H-121-T](#) [ACML-0402H-150-T](#) [ACML-0402H-151-T](#) [ACML-0402H-152-T](#) [ACML-0402H-181-T](#) [ACML-0402H-182-T](#) [ACML-0402H-190-T](#) [ACML-0402H-220-T](#) [ACML-0402H-221-T](#) [ACML-0402H-241-T](#) [ACML-0402H-300-T](#) [ACML-0402H-301-T](#) [ACML-0402H-320-T](#) [ACML-0402H-330-T](#) [ACML-0402H-331-T](#) [ACML-0402H-400-T](#) [ACML-0402H-421-T](#) [ACML-0402H-470-T](#) [ACML-0402H-481-T](#) [ACML-0402H-500-T](#) [ACML-0402H-600-T](#) [ACML-0402H-601-T](#) [ACML-0402H-700-T](#) [ACML-0402H-750-T](#) [ACML-0402H-800-T](#) [ACML-0402H-900-T](#)