

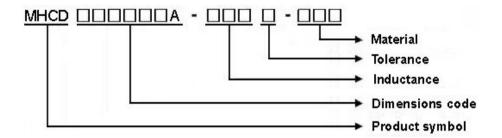
ISO9001 & ISO14001 & TS16949 CHILISIN ELECTRONICS CORP.

Halogen Free & RoHs Compliance

SPECIFICATION FOR APPROVAL

CUSTOMER:				
CUSTOMER P/N:				
OUR DWG No:				
QUANTITY:	0	Pcs.	DATE:	2014/06/09
ITEM:		МНС	D201610A-	1R0M-A8L
		ECIFICA CEPTE	_	
COMPONENT		OLI IL	<u> </u>	
ENGINEER				
ELECTRICAL				
ENGINEER				
MECHANICAL				
ENGINEER				
APPROVED				
REJECTED				
奇力新電子股份有限公司 Chilisin Electronic sCorp No. 29, Alley 301, Tehhsin Rd. Hukou,Hsinchu 303, Taiwan TEL:+886-3-599-2646 FAX:+886-3-599-9176 E-mail:sales@chilisin.com.tw http://www.chilisin.com.tw	,	Chili No. Area Gua TEL FAX	E奇力新電子 sin Electronics (I 78, Puxing Rd., \ a, Qingxi Town, I ngdong,China : +86-769-8773 : +86-769-8773 ail : cect@chilisi	Dongguan) Co., Ltd. Yuliangwei Administration Dongguan City, -0251~3 3-0232
奇力新電子(河南)有限公 Chilisin Electronics (Henan) Co XiuWu Xian, industry gathering JiaoZuo, Henan China Postal Code:454350 TEL:+86-391-717-0682 FAX:+86-391-717-0666	o., Ltd.	Chili No.1 Suzl Post TEL	,	Suzhou) Co., Ltd. Rd., Suzhou New District, 350
DRAWN BY 張鈺雯 chang.yuwen	(CHECKED 溫美玲 1		APPROVED BY 張鈺雯 chang.yuwen

- 1 Scope: This specification applies to Alloy Molding power inductors
- 2 Part Numbering: Product Identification



3 Rating:

Operating Temperature: $-4~0~\mathrm{C}\!\sim\!1~2~5~\mathrm{C}$ (Including self - temperature rise)

Storage Temperature: $-4~0~\%\sim1~2~5~\%$ (after PCB)

-5 $^{\circ}$ $^{\circ}$ $^{\circ}$ 3 5 $^{\circ}$ 7, Humidity 4 5 $^{\circ}$ $^{\circ}$ 8 5 $^{\circ}$ 6 (before PCB)

4 Marking:

No Marking

5 Standard Testing Condition

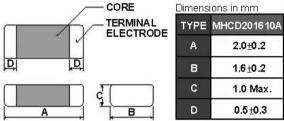
	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35 $^\circ$ C)	20±2 ℃
Humidity	Ordinary Humidity(25 to 85% RH)	60 to 70 % RH



ISO9001 & ISO14001 & TS16949 CHILISIN ELECTRONICS CORP.

MHCD201610A Series Specification

6 Configuration and Dimensions:



7 ELECTRICAL CHARACTERISTICS :

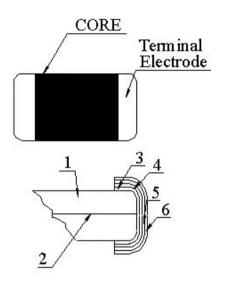
Part No.	Inductance (uH)	Test Freq.	Irms(A) Max.(Typ)	Isat(A) Max.(Typ)	RDC(mΩ) Max.(Typ)	Tolerance (±%)	
MHCD201610A-1R0M-A8L	1	2MHz,0.2V	2.7(3.4)	3.0(3.8)	62(53)	20	

NOTE:

- 1.Operating temperature range $-4~0~{\rm C}\!\sim\!1~2~5~{\rm C}$ (Including self temperature rise)
- 2.Irms DC current (A) that will cause an approximate ΔT of 40°C.
- 3.Isat DC current (A) that will cause Lo to drop approximately 30%
- 4.All test data is referenced to 25°C ambient

8 MHCD201610A Series

8.1 Construction:



8.2 Material List:

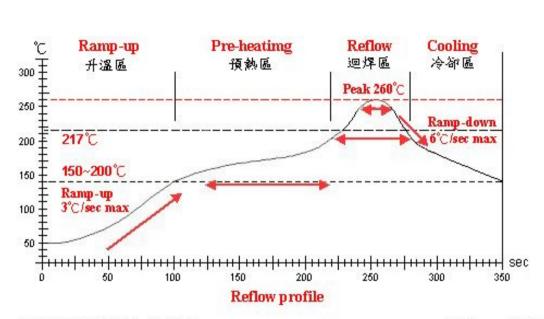
NO	Part	Description
1	Core	Metal Power
2	Wire	Copper wire
3	Sputter/Plating	Cu
4	Silver Electrode	Ag
5	Plating	Ni
6	Plating	Sn



ISO9001 & ISO14001 & TS16949 CHILISIN ELECTRONICS CORP.

MHCD201610A Series Specification

Oscillation Frequency: 10 to 55 to 10Hz for 1mi Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 280±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 280±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 280±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±		Item	Specification		Test Method
the terminal electrode and the ferrite Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1mi Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs Tene electrode should be covered with solder. Inductance: within ±20% of initial value The electrodes shall be at least 95% covered with new solder coating Terminal Strength Test No split termination Chip Temperature: 245±5 © Immersion Time: 10±1sec Test device shall be soldered on the substrate, because the should be covered with solder. Inductance: within ±20% of initial value The electrodes shall be at least 95% covered with new solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 246±5 © Immersion Time: 10±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: SN Keeping Time: 10±1sec Test Method. Test Method. Test Method. Temperature: 26±2 Total: 100cycles Measured after exposure in the room condition Temperature: 85±3 © Relative Humidity: 0% of Time: 500hrs Measured after exposure in the room condition Temperature: 85±3 © Relative Humidity: 0% of Time: 500hrs Measured after exposure in the room condition Temperature: 24±3 ©	-1-1	Flexure Strength	•		
Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1mi Amplitude: 1.5mm		1	conditions must not damage	Substr	rate Dimension: 100x40x1.6mm
Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1mi Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 260±5°C Immersion Time: 10±1sec 1-1-4 Solder ability The electrodes shall be at least 95% covered with new solder coating Terminal Strength Test No split termination Chip Mounting Pad -2-Environmental Performance No Item Specification Appearance: No damage Inductance: within±20% of initial value Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 55 N Keeping Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 55 N Keeping Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 55 N Keeping Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 55 N Keeping Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 55 N Keeping Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force:		1	the terminal electrode and the	Deflec	ction: 2.0mm
Oscillation Frequency: 10 to 55 to 10Hz for 1mi Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 260±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 260±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 260±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 260±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 150°C, 1min Solder	ļ		ferrite	Keepir	ing Time: 30sec
Oscillation Frequency: 10 to 55 to 10Hz for 1mi Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 260±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Temperature: 246±5°C Immersion Time: 10±1sec Pre-				<u> </u>	
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Time: 2hrs for each axis (X, Y & Z), total 6hrs Time: 2hrs for each axis (X, Y & Z), total 6hrs Tre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Frée) Solder Temperature: 260±5°C Immersion Time: 10±1sec Terminal Strength Test No split termination Chip Mounting Pad -2.E.Environmental Performance No ltem Specification Appearance: No damage Inductance: within±20% of initial value Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Test Method One cycle: 1	ļ				· · · · · · · · · · · · · · · · · · ·
Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Immersion Time: 4±1sec Im					
More than 75% of the terminal electrode should be covered with solder. Inductance: within ±20% of initial value The electrodes shall be at least 95% covered with new solder coating The electrodes shall be at least 95% covered with new solder coating Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 40±5°C Solder Temperature: 245±5°C Immersion Time: 40±15°C Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 50°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 50°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 240±25°C Immersion Time: 50°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 240±25°C Immersion Time: 50°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 240±3°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperat				1	
electrode should be covered with solder. Inductance: within ±20% of initial value The electrodes shall be at least 95% covered with new solder coating The electrodes shall be at least 95% covered with new solder coating Pre-heating: 150°C, 1min Solder Composition: Sni/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Poet Inductance: within±20% of initial value Pre-heating: 150°C, 1min Solder Composition: Sni/Ag3.0/Cu0.5(Pb-Free) Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Poet Inductance: within±20% of initial value Pre-heating: 150°C, 1min Solder Composition: Sni/Ag3.0/Cu0.5(Pb-Free) Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Poet Inductance: within±20% of initial value Pre-heating: 150°C, 1min Solder Composition: Sni/Ag3.0/Cu0.5(Pb-Free) Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Poet Inductance: within±20% of initial value Pre-heating: 150°C, 1min Solder Composition: Sni/Ag3.0/Cu0.5(Pb-Free) Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Poet Inductance: within±20% of initial value Pre-heating: 150°C, 1min Solder Composition: Sni/Ag3.0/Cu0.5(Pb-Free) Pre-heating: 150°C, 1min Solder Co	-1-3	Resistance to Soldering Heat			
with solder. Inductance: within ±20% of initial value 1-4 Solder ability The electrodes shall be at least 95% covered with new solder coating The electrodes shall be at least 95% covered with new solder coating Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Terminal Strength Test No split termination Chip Chip Appearance: No damage Inductance: within±20% of initial value Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec One cycle: Step Temperature (C) 1 40±3 2 25±2 Total: 100cycles Measured after exposure in the room condition Temperature: 60±2°C Relative Humidity: 90 ~ 95% / Time: 500hrs Measured after exposure in the room condition Temperature: 40±3°C					- N N N
Inductance: within ±20% of initial value The electrodes shall be at least 95% covered with new solder coating The electrodes shall be at least 95% covered with new solder coating Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec One cycle: Step	ļ				·
initial value The electrodes shall be at least 95% covered with new solder coating Terminal Strength Test No split termination Chip F Mounting Pad -2.Environmental Performance No Item Specification Appearance: No damage Inductance: within±20% of initial value Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 24±5±5°C Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec One cycle: Step Temperature (**) 1	ļ			Immer	rsion Time: 10±1sec
The electrodes shall be at least 95% covered with new solder coating The electrodes shall be at least 95% covered with new solder coating The electrodes shall be at least 95% covered with new solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5 C Immersion Time: 4±1sec Terminal Strength Test No split termination Chip Pa Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Temperature Cycle Appearance: No damage Inductance: within±20% of initial value Temperature Cycle: Step Temperature (T) 1	ļ			1	
least 95% covered with new solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free)				⊢	
Solder Temperature: 245±5°C Immersion Time: 4±1sec Terminal Strength Test No split termination Chip F Mounting Pad Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Page Inductance: No damage Inductance: within±20% of initial value Page Inductance: within±20% of initial value Test Method One cycle: Step Temperature (**) / Time: 500 hrs. Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 90 ~ 95% / Time: 500 hrs. Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 00% / Time: 500 hrs. Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 00% / Time: 500 hrs. Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 00% / Time: 500 hrs. Measured after exposure in the room condition Temperature: 40±3°C	-1-4	Solder ability			
Immersion Time: 4±1sec Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force : 5N Keeping Time: 10±1sec Polymerature Cycle Temperature Cycle Appearance: No damage Inductance: within±20% of initial value Appearance: No damage Inductance: within±20% of initial value Appearance: No damage Inductance: within±20% of initial value Temperature: 60±2°C Relative Humidity: 90 ~ 95% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: 40±3°C	ļ				
Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec Chip	ļ		_		
then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec -2.Environmental Performance No Item Specification -2-1 Temperature Cycle Appearance: No damage Inductance: within±20% of initial value -2.Environmental Performance No Item Specification -2-1 Temperature Cycle Appearance: No damage Inductance: within±20% of initial value -2.Environmental Performance Specification Test Method -2-2 Step Temperature (**O) 1				Immer	rsion Time: 4±1sec
then apply a force in the direction of the arrow. Force: 5N Keeping Time: 10±1sec -2.Environmental Performance No Item Specification -2-1 Temperature Cycle Appearance: No damage Inductance: within±20% of initial value -2.Environmental Performance Mounting Pad Specification Test Method One cycle: Step Temperature (**O) /*Ti 1 -40±3 2 25±2 3 125±3 4 25±2 Total: 100cycles Measured after exposure in the room condition Temperature: 60±2°C Relative Humidity: 90 ~ 95% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: -40±3°C	1_5	Torminal Strength Test	No colit termination	Test d	device shall be soldered on the substrate
-2.Environmental Performance No Item Specification Appearance: No damage Inductance: within±20% of initial value -2-1 Temperature Cycle Appearance: No damage Inductance: within±20% of initial value -2-2 Humidity Resistance -2-2 Humidity Resistance -2-3 High Temperature Resistance -2-4 Low Force: 5N Keeping Time: 10±1sec -2-2 Mounting Pad -2-2 Test Method -2-2 One cycle: -2-2 Step Temperature (°C) / / Time: 500 / Time: 500 hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 90 ~ 95% / Time: 500 hrs Measured after exposure in the room condition Temperature: 40±3°C	- 1-5	Terrilliai Suerigui Test	•	then apply a force in the direction of the arrow	
L-2.Environmental Performance No Item Specification Appearance: No damage Inductance: within±20% of initial value No Item Specification Appearance: No damage Inductance: within±20% of initial value One cycle: Step Temperature (**O) VTI 1		1	· \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
No Item Specification Test Method Temperature Cycle Appearance: No damage Inductance: within±20% of initial value Inductance: within±20% of		1			
No Item Specification Test Method Item		1		Nechii	ing fillie. To 11360
No Item Specification Test Method Item			Mounting Pad		[] \
No Item Specification Test Method	I-2.E	nvironmental Performance			
Inductance:within±20% of initial value Step Temperature (°0) /Time: 500 hrs -2-2 Humidity Resistance Temperature Resistance -2-3 High Temperature Resistance -2-4 Low Temperature: -40±3°C -2-4 Low Step Temperature (°0) /Time: 500 hrs -2-8 Measured after exposure in the room condition -2-9 Temperature: -40±3°C -2-1 Low Temperature: -40±3°C -2-2 Low Temperature: -40±3°C -2-3 Temperature: -40±3°C -2-4 Low Temperature: -40±3°C -2-4 Low Temperature: -40±3°C -2-4 Low Temperature: -40±3°C -2-5 Temperature: -40±3°C -2-6 Temperature: -40±3°C -2-7 Temperature: -40±3°C -2-8 Temperature: -40±3°C -2-9 Temperature: -40±3°C -2-1 Temperature: -40±3°C -2-2 Total: 100cycles Measured after exposure in the room condition -2-3 Temperature: -40±3°C -2-4 Low Temperature: -40±3°C -2-4 Low Temperature: -40±3°C -2-5 Temperature: -40±3°C -2-6 Temperature: -40±3°C -2-7 Temperature: -40±3°C -2-8 Temperature: -40±3°C -2-9 Temperature:	No	Item	Specification		
initial value	1-2-1	Temperature Cycle		One c	
2 25±2 3 125±3 4 25±2 Total: 100cycles Measured after exposure in the room condition Temperature: 60±2°C Relative Humidity: 90 ~ 95% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: -40±3°C		1		Step	
2 25±2 3 125±3 4 25±2 Total: 100cycles Measured after exposure in the room condition 1-2-2 Humidity Resistance Temperature: 60±2°C Relative Humidity: 90 ~ 95% / Time: 500hrs. Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs. Measured after exposure in the room condition Temperature: 40±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: -40±3°C		1	initial value		1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
4 25±2 Total: 100cycles Measured after exposure in the room condition Temperature: 60±2°C Relative Humidity: 90 ~ 95% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: -40±3°C		1	ļ , , , , , , , , , , , , , , , , , , ,		
Total: 100cycles Measured after exposure in the room condition Temperature: $60\pm2^{\circ}\mathbb{C}$ Relative Humidity: $90 \sim 95\%$ / Time: 500hrs. Measured after exposure in the room condition Temperature: $85\pm3^{\circ}\mathbb{C}$ Relative Humidity: 0% / Time: 500hrs. Measured after exposure in the room condition Temperature: $40\pm3^{\circ}\mathbb{C}$ Reperature: $40\pm3^{\circ}\mathbb{C}$		1		3	(1000)
Measured after exposure in the room condition Temperature: 60±2°C Relative Humidity: 90 ~ 95% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Temperature: -40±3°C		1			
1-2-2 Humidity Resistance Temperature: $60\pm2^{\circ}$ C Relative Humidity: $90 \sim 95\%$ / Time: 500hrs Measured after exposure in the room condition Temperature: $85\pm3^{\circ}$ C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition 1-2-4 Low Temperature: $-40\pm3^{\circ}$ C		1			
Relative Humidity: 90 ~ 95% / Time: 500hrs. Measured after exposure in the room condition Temperature: 85±3°C Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition Measured after exposure in the room condition Temperature: -40±3°C] '	Measu	ured after exposure in the room condition for 24h
Measured after exposure in the room condition 1-2-3 High Temperature Resistance Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition 1-2-4 Low Temperature: -40±3℃	1-2-2	Humidity Resistance			
1-2-3 High Temperature Resistance Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition 1-2-4 Low Temperature: -40±3℃	ļ				-
Temperature Resistance Relative Humidity: 0% / Time: 500hrs Measured after exposure in the room condition 1-2-4 Low Temperature: -40±3°C]		ured after exposure in the room condition for 12h
Measured after exposure in the room condition 1-2-4 Low Temperature: -40±3℃	1-2-3	_			
1-2-4 Low Temperature: -40±3°C	ļ	Temperature Resistance			•
]	Meası	ured after exposure in the room condition for 12h
		Low]	Tempo	perature: -40±3°C
1 ombounded - residence -	1-2-4		·		
Measured after exposure in the room condition	1-2-4	Temperature Resistance	1		



Lead-Free(LF) 標準溫度分析範圍

Refer to J-STD-020C

管制項目 Item.	升溫區 Ramp-up	預熱區 Pre-heatimg	迴焊區 Reflow	Peak Temp	冷卻區 Cooling
溫度範圍 Temp.scope	R.T. ~150°℃	150°C ~ 200°C	217℃	260±5°ℂ	Peak Temp. ~ 150℃
標準時間 Time spec.	-550	60 ~ 180 sec	60 ~ 150 sec	20 ~ 40 sec	-
實際時間 Time result	_	75 ~ 100 sec	90 ~ 120 sec	20 ~ 35 sec	(-)

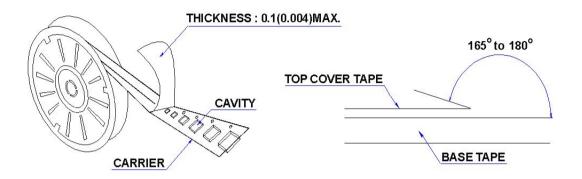
NOTE:

- 1. Re-flow possible times: within 2 times
- 2. Nitrogen adopted is recommended while in re-flow

11 PACKAGING

11.1 Packaging -Cover tape

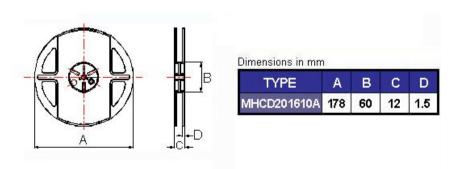
The force for tearing off cover tape is 10 to 100 grams in the arrow direction.



11.2 Packaging Quantity

TYPE	BULK	PCS/REEL
MHCD201610A	✓	3000

11.3 Reel Dimensions



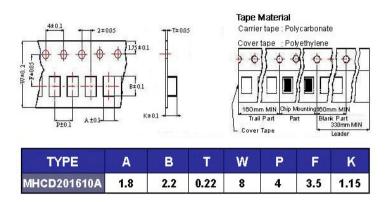


SO9001 & ISO14001 & TS16949 CHILISIN ELECTRONICS CORP.

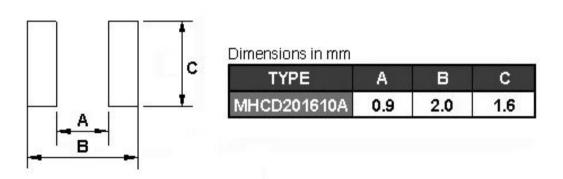
MHCD201610A Series Specification

11 PACKAGING

11.4 Tape Dimensions in mm



12 Recommended Pattern



13 Note:

- 1. Please make sure that your product is has been evaluated and confirmed against your specifications when our product is mounted to your product.
- 2. Do not knock nor drop.
- 3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose,under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
- 4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)

单击下面可查看定价,库存,交付和生命周期等信息

>>CHILISIN(奇力新)