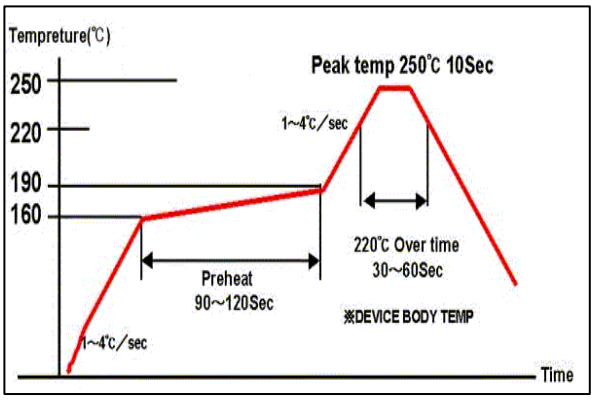
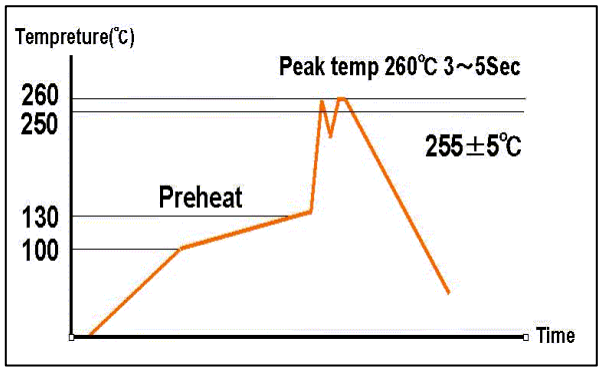
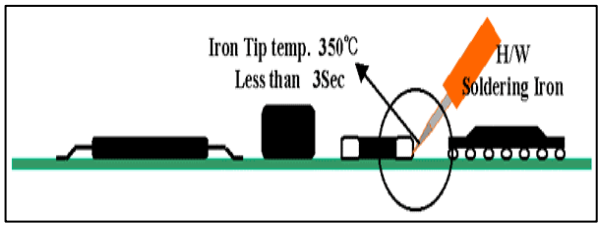
Pb-FREE PRODUCTS 無鉛產品

No	Item [項目]	Test Method & Conditions [試驗方法、條件]	Specification After Test [試驗後規格]
A . Mechanical Characteristics 機械特性			
1	**Operating Temperature 工作溫度**	Temp. Range： Ceramic Material ： - 40 ℃ ～ + 125 ℃ Ferrite Material ： - 40 ℃ ～ + 85 ℃	
2	**Storage temperature and Humidity range 儲存溫度濕度**	- 10 ~ +40℃ ； 20 to 70% RH.	
3	**Solder Heat Resistance 抗焊錫熱特性**	· Dip the components into flux and dip into solder pot containing lead free solder at 260 °C ± 5 °C for 5 ± 2 seconds. **Temperature profile** ☐ **Reflow soldering temperature profile** ＊(Temperature of the mounted parts surface on the printed circuit board)  ☐ **Dip temperature**  ☐ **Soldering iron tip temperature :**  	· Change In Inductance： No more than 5% · Change In Q： No more than 10% · Change In Appearance ： Without distinct damage · Reflow：250℃ Max · 250℃ up /within 10secs · Gradient of temperature rise： av 1-4℃/sec · Preheat： 160-190℃/within 90-121secs 220℃ up /within 30-61secs · Solder： Sn-3Ag-0.5Cu · Solder temperature: 260℃ max whithin 5secs. · Preheating temperature： 100～130℃,deposit solder temperature. · Solder： Sn-3Ag-0.5Cu · Iron Temp：350℃ max · Time： 3 sec.

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A . Mechanical Characteristics 機械特性			
4	**Solderability 焊錫性**	· Dip pads in flux and dip in solder pot containing lead free solder at 240 °C ± 5°C for 5 seconds.	· A minimum of 80% of the metalized are a must be covered with solder.
5	**Component Adhesion (Push Test) 推力試驗**	· The component shall be reflow soldered onto a P. C. Board (240 °C ± 5°C for 20 seconds). · Then a dynometer force gauge shall be applied to any side of the component.	· 0402 series - 350g 0603 series - 1.0Kg Other series - 0805 ~ 1812 Minimum 1Kg for Pd/Ag termination and 2Kg for Mo/Mn termination.
6	**Vibration (Random) 振動試驗**	· Inductors shall be randomly vibrated at amplitude of 1.5mm and frequency of 10 - 55 Hz: 0.04 G / Hz for a minimum of 15 minutes per axis for each of the three axes.	· Change In Inductance：No more than 5% · Change In Q：No more than 10% · Change In Appearance ： Without distinct damage
7	**Drop Test 落下試驗**	· The inductor shall be dropped two times on the concrete floor or the vinyl tile from 1M naturally.	· Change In Inductance：No more than 5% · Change In Q：No more than 10% · Change In Appearance ： Without distinct damage
B . Environmental Characteristics 環境試驗			
8	**Cold Temperature Storage 低溫儲存**	· Inductors shall be stored at temperature of -40 °C ± 2 °C for 1000hrs (+ 48 -0 hrs.) · Then inductors shall be subjected to standard atmospheric conditions for 1 hour. · After that, measurement shall be made.	· Change In Inductance：No more than 5% · Change In Q：No more than 10% · Change In Appearance ： Without distinct damage
9	**High Temperature Storage 高溫儲存**	· Inductors shall be stored at temperature of 85 °C ± 2 °C for 1000hrs (+48 - 0hrs.) · Then inductors shall be subjected to standard atmospheric conditions for 1 hour. · After that, measurement shall be made.	· Change In Inductance：No more than 5% · Change In Q：No more than 10% · Change In Appearance ： Without distinct damage
10	**Moisture Resistance 耐溼試驗**	· Inductors shall be stored in the chamber at 45 °C at 90 - 95 R. H. for 1000 hours. · Then inductors are to be tested after 2 hours at room temperature.	· Inductors shall not have a shorted or open winding.

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B . Environmental Characteristics 環境試驗			
11	**High Temperature with Loaded 高溫負載**	· Inductors shall be stored in the chamber at +85 °C for 1000 hours with rated current applied. Inductors shall be tested at the beginning of test at 500 hours and 1000 hours. · Then inductors are to be tested after 1 hour at room temperature.	· Inductors shall not have a shorted or open winding.
12	**Thermal Shock Test 熱衝擊試驗**	· Each cycle shall consist of 30 minutes at -40 °C followed by 30 minutes at +85 °C with a 20-second maximum transition time between temperature extremes. Test duration is 10 cycles.	· Change In Inductance：No more than 5% · Change In Q：No more than 10% · Change In Appearance ： Without distinct damage