■ Power Inductor — ECDH0124F-TWZ Series

■ Parts Number Explanation

Example:

ECD	H0124	F	–	470	M	–	T	W	Z
Product Type	Size (mm)	Application		Inductance (uH)	Tolerance		Package	Internal Code	Optional
Wire-wound Power Inductor	0124			470 : 47.0uH	N : ±30% M : ±20% K : ±10%		T : Taping		

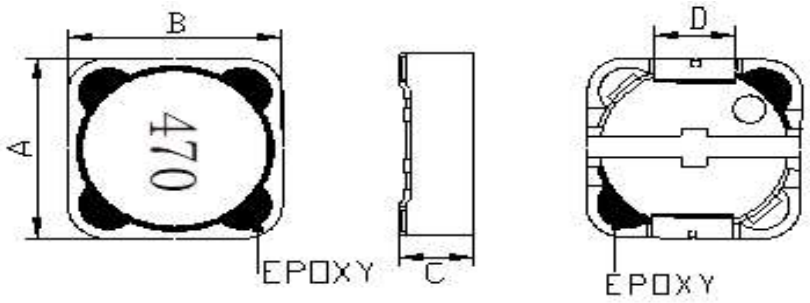
■ Standard Electrical Specifications

Part Number	L (uH) ±20%	DCR (mΩ) MAX	DCR (mΩ) TYP	Isat (A) △L/L0≦30%	Irms (A) △T=40℃ MAX
ECDH0124F-470M-TWZ	47.0	160	120	2.4	1.5

Notes：

1. Test Frequency：100KHZ/0.1V
2. Tolerance：N: ±30%；M: ±20%; K: ±10%

■ Dimensions



Note：Using Ink for marking (5.0*2.7 Black).

Unit: mm

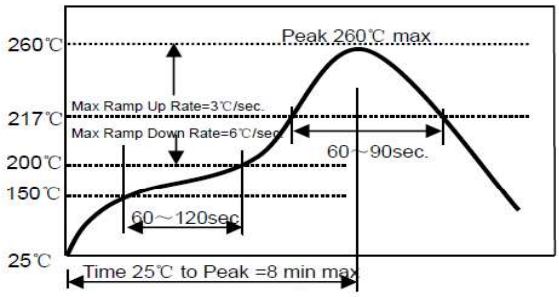
Type	A	B	C	D
ECDH0124F	12.3 max.	12.3 max.	4.50 max.	5.0 Ref.

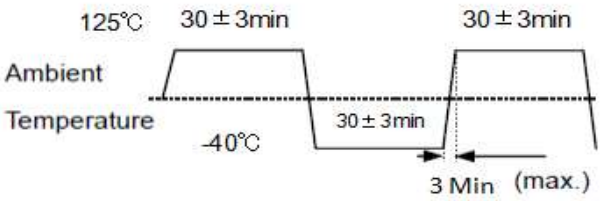
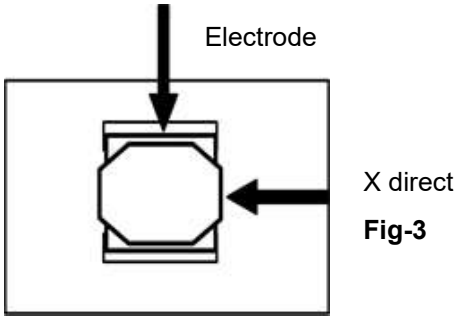
■ Marking

● The inductor is marked with a 3-digit code

Nominal Inductance	
Example	Nominal Value
1R0	1.0 μH
100	10 μH
101	100 μH

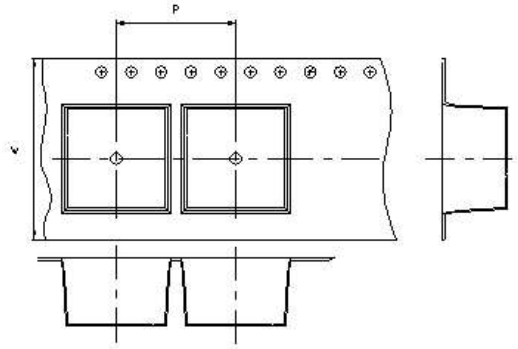
● Reliability test and requirement

Items	Requirements	Test Methods and Remarks
Resistance to Soldering Heat	1. No visible mechanical damage 2. Inductance change: Within ±5%	1. Solder on PCB to Reflow test Peak Temp. 260±5℃ 5～10 secs ,Cycles :2 times..Re-flowing Profile: Please refer to Fig-1 Please refer to Fig-1. 2. Test board thickness: 1.5mm 3. Test board material: glass epoxy resin 4. The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made product showed no damage under microscope. **Fig-1** 
High Temperature	1. No visible mechanical damage 2. Inductance change: Within ±10%	1. Temperature: 125±2℃ 2. Duration: 1000 hours 3. The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.
Steady damp-heat	1. No visible mechanical damage 2. Inductance change: Within ±10%	1. Temperature:85℃ 2. Humidity: 85% RH 3. Duration:1000 hours 4. The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.
Mechanical Vibration	1. No visible mechanical damage 2. Inductance change: Within ±10%	1.Frequency: 10HZ～55HZ～10HZ/Min Cycles 2.Amplitude: 1.5 mm 3.Directions: X, Y, Z 4. Time: 2 hours in each directions (total of 6 hours)

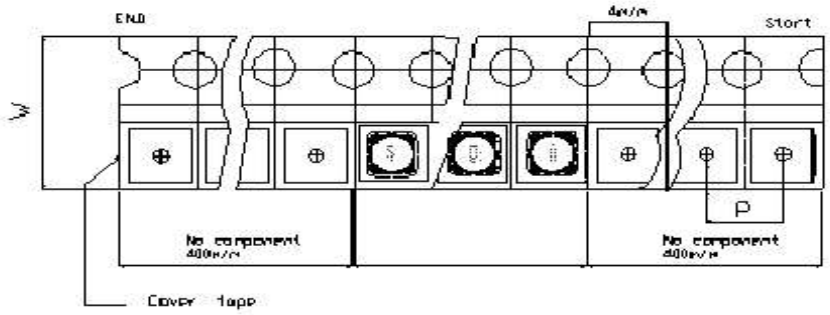
Items	Requirements	Test Methods and Remarks
Thermal Shock	1. No visible mechanical damage 2. Inductance change: Within ±10%	1.Temperature and time: -40±2℃ for 30±3 min→125℃ for 30±3min, please refer to Fig-2 2.Transforming interval: Max. 3 Min 3.Tested cycle: 1000 cycles 4.The specimen shall be stored at standard atmospheric conditions for 1 hour, after which the measurement shall be made.  Fig-2
Salt Spray	1. No visible mechanical damage 2. Inductance change: Within ±10%	1.Salt concentration: (5 ± 1)% (mass percent) 2.pH value:6.5 - 7.2 3.temperature: 35 ± 2 ℃ 4.humidity: 85% 5.time: 24 hours6.in normal temperature and humidity for 1 ～ 2 hours, testing inductance, 6.the inductance value change can not be more than before test ± 10%.
Terminal strength	The peak thrust is greater than 10N.	1. The electrode of the inductor is soldered to the PCB, to Fig-3 Then apply a force in the X direction of the arrow. 2. 10N force. 3. Keep time: 10(±1) s, 4. The first three tests were OK, and the force was applied until the peak value of the product peeling. The test speed was set in the range of 3 ~ 8mm/min.  **Fig-3**

■ Packaging Information

(1) CARRIER TAPE DIMENSIONS（Unit：mm）



(2) TAPING DIMENSIONS（Unit：mm）

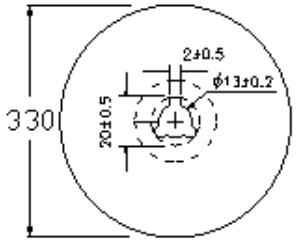


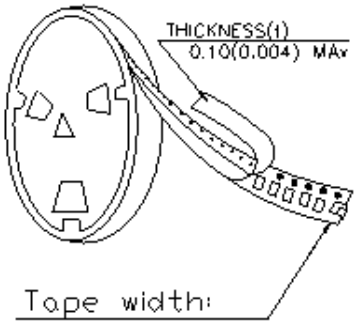
W	24
P	16

Note:

After the product is ready, the outermost layer of the reel is 400mmMIN and the innermost layer is 400mmMIN.

(3) REEL DIMENSIONS (Unit : mm)





Tape Width：24mm

(4) Quantity (PCS)

Type	pcs / Reel
ECDH0124F	500