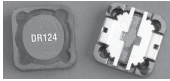


# Coiltronics / Eaton DR124-180-R alternative

Fixed Inductors 18uH 4.32A 47mOhms  
Part No. FENH1204-180MA-Z

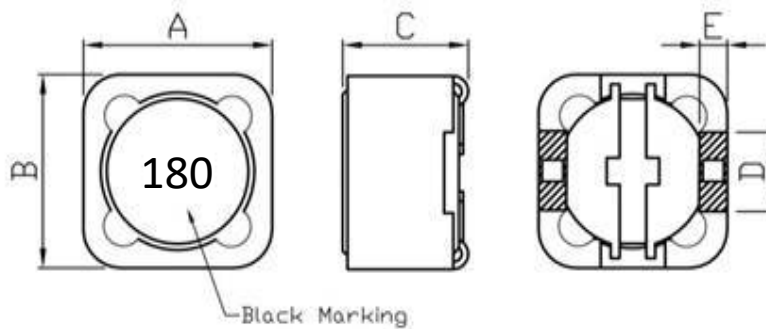


ITEM	SMD,INDUCTOR,18uH+-20%
PART NUMBER	FENH1204-180MA-Z
ELECTRICAL REQUIREMENTS	INDUCTANCE: 18uH±20% DCR: 0.057Ω MAX. Isat Current: 4.32A (Drops 25% typ.) Irms Current: 3.4A (ΔT=40°C typ.)

### TEST METHOD:

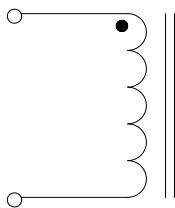
TEST EQUIPMENT	CH 3302/CH 1320 CH16502
TEST FREQUENCY	100KHz/0.25V

### DIMENSION : (UNIT:mm)

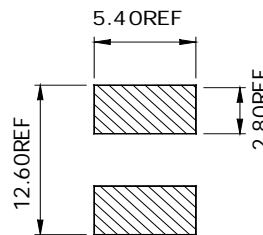


- A= 12.00±0.30mm
- B= 12.00±0.30mm
- C= 5.00mm MAX.
- D= 5.00±0.30m/m
- E= 1.90±0.30m/m

### SCHEMATICS:



### LAND PATTERNS:



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# Coiltronics / Eaton DR124-180-R alternative

Fixed Inductors 18uH 4.32A 47mOhms  
Part No. FENH1204-180MA-Z



## PACKAGING QUANTITIES

TYPE	Pcs / REEL
FENH1204	500

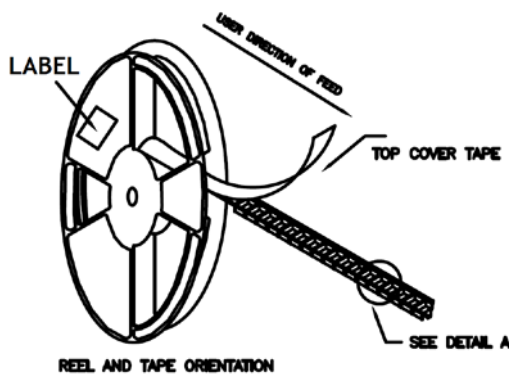
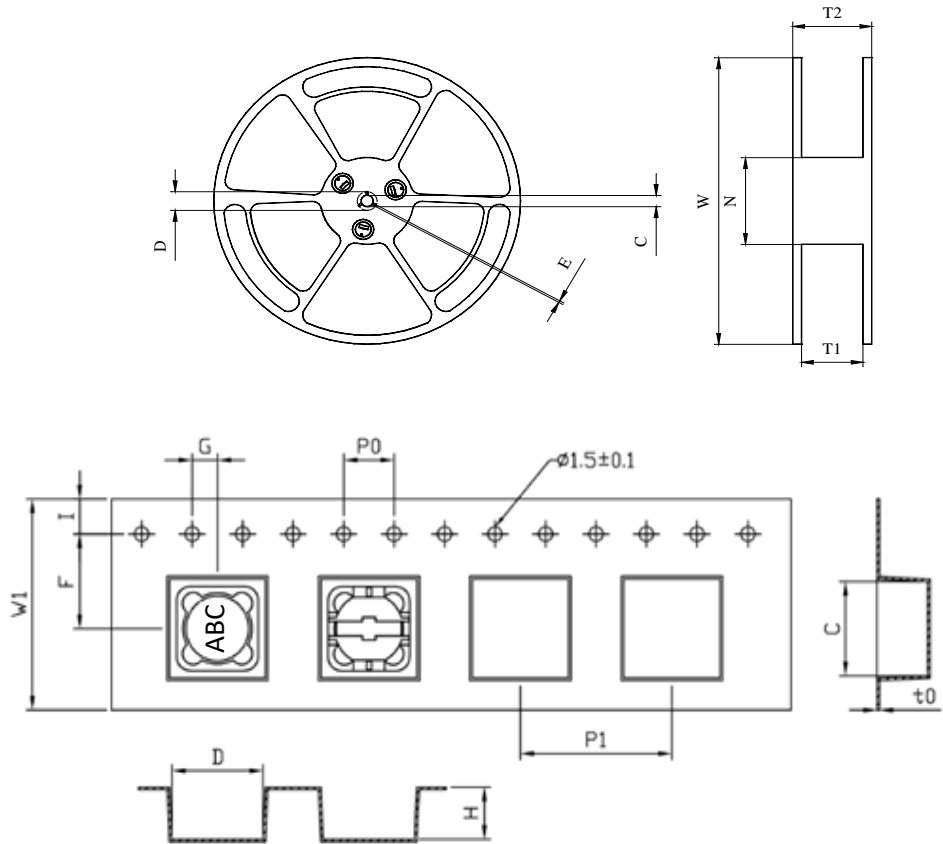
## REEL DIMENSIONS UNIT:mm

TYPE	W	D	C	T1	N	T2	E
UR-14	330±1.5	21.5+0.5/-0	13+0.5/-0.2	24.5+0.5/-0	100±1.5	29.5±0.4	2.00±0.5

Material: Paper,Palstic

UNIT:mm

W1	24.00±0.3
I	1.75±0.1
F	11.50±0.1
P0	4.00±0.1
G	2.00±0.1
P1	16.00±0.1
C	12.85±0.1
t0	0.40±0.05
D	12.85±0.1
H	5.10±0.1



USER DIRECTION OF FEED  
→

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# RELIABILITY TEST

1. Operating temperature range  
-40 TO + 125°C (Includes temperature when the coil is heated)
  2. External appearance  
On visual inspection, the coil has no external defects.
  3. Terminal strength  
After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at below conditions.  
Terminal should not peel off. (refer to figure at right)  
5. 0N 60 sec.
  4. Insulating resistance.  
Over 100MΩ at 100V D.C. between coil and core.
  5. Dielectric strength  
No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
  6. Temperature characteristics  
Inductance coefficient  $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$   $(-25\sim +80^{\circ}\text{C})$ .
  7. Humidity characteristics(Moisture Resistance)  
Inductance deviation within  $\pm 5\%$ , after 96 hours in 90~95% relative humidity at  $40 \pm 2^{\circ}\text{C}$  and 1 hour drying under normal condition.
  8. Vibration resistance  
Inductance deviation within  $\pm 5\%$ , after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
  9. Shock resistance  
Inductance deviation within  $\pm 5\%$ , after being dropped once with  $981\text{m/s}^2$  (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
  10. Resistance to Soldering Heat: 260°C, 10 seconds(See attached recommend reflow)
  11. Storage environment  
Storage condition: Temperature Range: 0°C ~ 35°C ; -40°C ~ 125°C (after PCB)  
Humidity Range: 50% ~ 70% RH
  12. Moisture Sensitivity Levels (MSL): Level I
- Use components within 12 months. If 12 months or more have elapsed, check solderability before use.

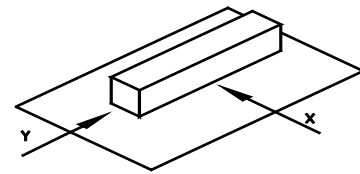


Figure 1

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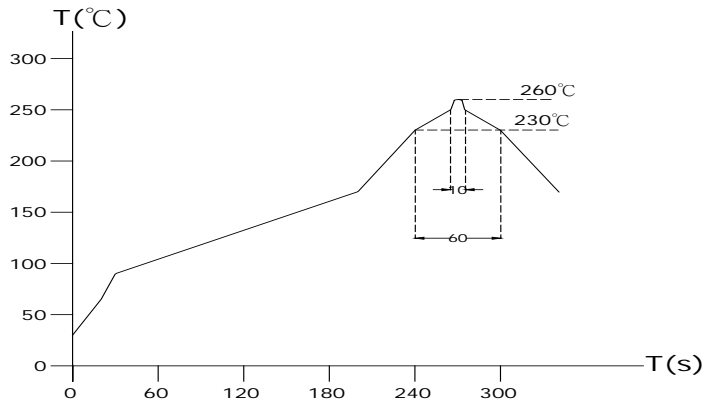
# Coiltronics / Eaton DR124-180-R alternative

Fixed Inductors 18uH 4.32A 47mOhms  
Part No. FENH1204-180MA-Z



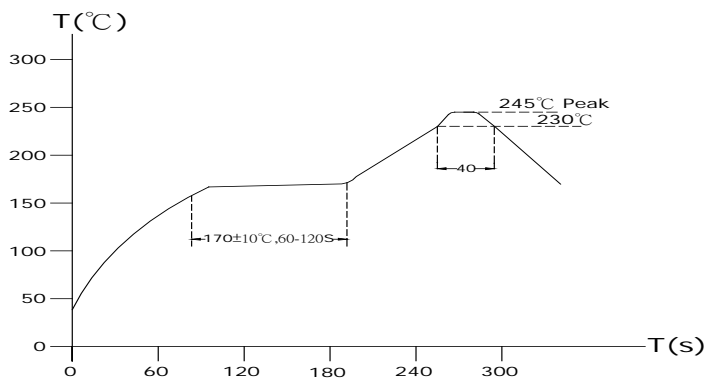
## GENERAL CHARACTERISTICS

### Lead-free heat endurance test



- ※The test should be made under the conditions according to the chart, after the test it is kept for 2hours under the normal temperature and humidity. Then,no mechanical and electrical defect should be found out.
- ※The reflow test can be done twice,but the interval should be more than one hour under the normal conditions.
- ※The reflow test conditions are based on the testing instruments available in our company.

### Lead-free the recommended reflow condition



- ※The reflow condition recommended above is according to the machine used by our company. Big differences will arise as a result of the type of machine ,reflow conditions,method,etc used. Hence,before setting up your reflow conditions,please confirm with the above.

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