

Issue No. : _____
Date of issue : _____
Classification : New Changed Revised

PRODUCT SPECIFICATION FOR APPROVAL

Brand : 弘玖科技 _____
Customer : _____
Customer P/N : _____
Product Description : **POWER INDUCTORS [Shielded type]**
12.5m/m Max × 12.5m/m Max H : 8.0 m/m Max
Part Name : **EDRH127 Series**
Date : **6/16/2015**
Term of Validity : _____

REMARK:		
Customer Approval Feedback		

A-PLUS
POWERTECHNOLOGY CO.,
LTD.

PRODUCT SPECIFICATION

SPEC. NO.

H-0604-038

1. Scope

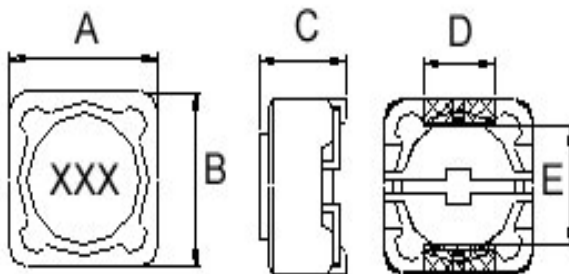
This specification applies Ferrite Chip Power choke EDRH127-SERIES to be delivered to user

2. Product Identification

EDRH 127 - 100 M
 (1) (2) (3) (4)

- (1) Product name
 (2) Shapes and dimensions
 (3) Inductance
 100 : 10uH
 (4)Tolerance
 M=±20% / N=±30%

3. Shapes and Dimensions [Dimensions in mm]



Unit:mm

A: 12.5 Max

B: 12.5 Max

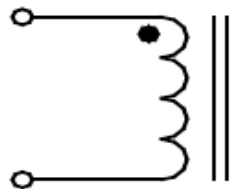
C: 8.0 Max.

D: 5.0

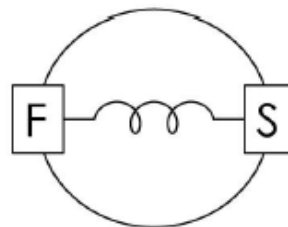
E: 7.6

Schematic Diagram

- Schematic Diagram



- Connection(Bottom View)



PRODUCT SPECIFICATION

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H-0604-038**4. Electrical Characteristics**

Our Product Part Number	Test Condition	Inductance(uH)	Tolerance(%)	DCR(mΩ)Ma x	Rate Current(A)
EDRH127-1R5□	100KHz/0.3V	1.5	M,N	7.0	9.80
EDRH127-2R2□	100KHz/0.3V	2.2	M,N	11.5	8.00
EDRH127-3R3□	100KHz/0.3V	3.3	M,N	13.5	7.50
EDRH127-4R7□	100KHz/0.3V	4.7	M,N	15.8	6.80
EDRH127-6R8□	100KHz/0.3V	6.8	M,N	19.0	6.60
EDRH127-8R2□	100KHz/0.3V	8.2	M,N	20.0	5.60
EDRH127-100□	1KHz/0.3V	10	M	21.6	5.40
EDRH127-120□	1KHz/0.3V	12	M	24.3	4.90
EDRH127-150□	1KHz/0.3V	15	M	27.0	4.50
EDRH127-180□	1KHz/0.3V	18	M	39.2	3.90
EDRH127-220□	1KHz/0.3V	22	M	43.2	3.60
EDRH127-270□	1KHz/0.3V	27	M	45.9	3.40
EDRH127-330□	1KHz/0.3V	33	M	64.8	3.00
EDRH127-390□	1KHz/0.3V	39	M	72.9	2.75
EDRH127-470□	1KHz/0.3V	47	M	100	2.50
EDRH127-560□	1KHz/0.3V	56	M	110	2.35
EDRH127-680□	1KHz/0.3V	68	M	140	2.10
EDRH127-820□	1KHz/0.3V	82	M	160	1.95
EDRH127-101□	1KHz/0.3V	100	M	220	1.70
EDRH127-121□	1KHz/0.3V	120	M	250	1.60
EDRH127-151□	1KHz/0.3V	150	M	280	1.42
EDRH127-181□	1KHz/0.3V	180	M	350	1.30
EDRH127-221□	1KHz/0.3V	220	M	390	1.16
EDRH127-271□	1KHz/0.3V	270	M	560	1.06
EDRH127-331□	1KHz/0.3V	330	M	640	0.95
EDRH127-391□	1KHz/0.3V	390	M	700	0.88
EDRH127-471□	1KHz/0.3V	470	M	980	0.79
EDRH127-561□	1KHz/0.3V	560	M	1070	0.73
EDRH127-681□	1KHz/0.3V	680	M	1460	0.67
EDRH127-821□	1KHz/0.3V	820	M	1640	0.60
EDRH127-102□	1KHz/0.3V	1000	M	1820	0.55

NOTE: □-tolerance M=±20% / N=±30%

※Rated Current:The rated current is the current at which the inductance decreases by 25% from the initial value or the temperature rise is $\Delta T = 40^{\circ}\text{C}$, whichever is smaller ($T_a = 20^{\circ}\text{C}$)

TEST INSTRUMENTS

L : HP 4285A PRECISION LCR METER (or equivalent)

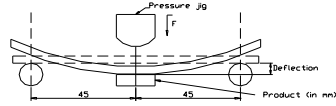
RDC : CHROMA MODEL 16502 MILLIOHM METER (or equivalent)

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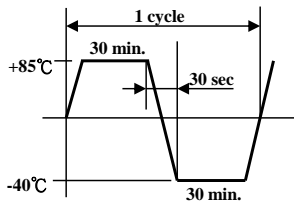
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H-0604-038**Mechanical Performance**

Vibration	Appearance : Ferrite shall not be damaged.	Frequency : 10 to 50 Hz Amplitude : 1.52 mm Dimension and times : X ,Y and Z directions for 2 hours each.
Bending Test	Chip coil shall not be damaged after tested as test method	Substrate:Glass-epoxy substrate(100mm*40mm*1.6mm) speed of Applying Force:1mm/s Deflection:2mm Hold Duration:30s 
Solderability	The wetting area of the electrode shall be at least 95% covered with new solder coating	Solder:Sn/Ag3.0/Cu0.5 per-Heating:150°C±10°C/1min to 2min solder Temperature:245°C±5°C Immersion Time:4s±1s
Resistance to Soldering Heat	Appearance:No damage	Solder:Sn/Ag3.0/Cu0.5 per-Heating:150°C±10°C/1min to 2min solder Temperature:260°C±5°C Immersion Time:10s±1s

Environmental Performance

High temperature resistance	Appearance : Ferrite shall not be damaged. Inductance : Within ±20% of the initial value. DC resistance : standard value inside.	Temperature : +85±2°C Applied voltage : Rated voltage Applied current : Rated current Testing time : 500±12 hours Measurement : After placing for 24 hours min.
Humidity resistance		Temperature : +85±2°C Humidity : 90 to 95%RH Applied current : Rated current Applied voltage : Rated voltage Testing time : 500±12 hours Measurement : After placing for 24 hours min.
Thermal shock		Temperature : -40°C,+85°C kept stabilized for 30 minutes each. Cycle : 100 cycle Measurement : After placing for 24 hours min. 
Low temperature storage		Temperature : -40±2°C Testing time : 500±12 hours Measurement : After placing for 24 hours min.

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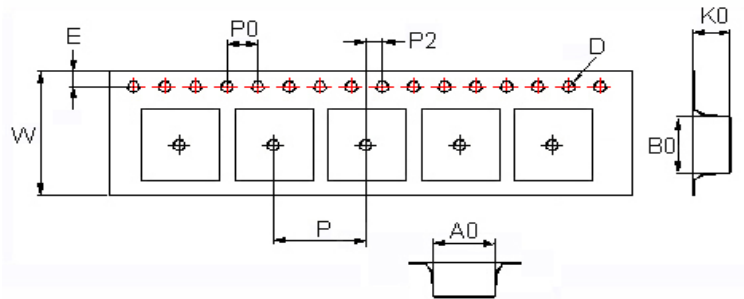
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6. Packaging

The packaging must be done not to receive any damage during transporting and storing.

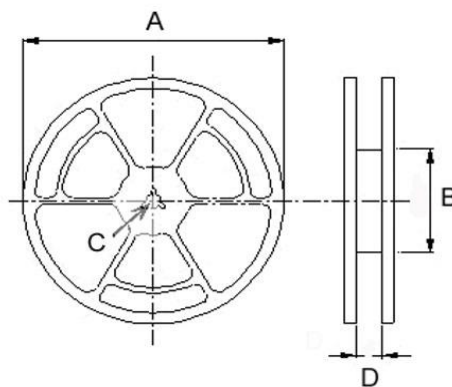
6-1 Tape dimensions



Unit:mm

A0	12.6
B0	12.6
K0	8.7
D	1.55
E	1.75
W	24
P	16
P0	4
P2	2

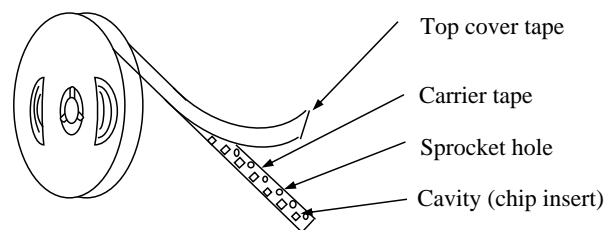
6-2 Reel dimensions



Unit:mm

Symbol	T
A	330
B	100
C	13
D	24

6-3 Tapping figure



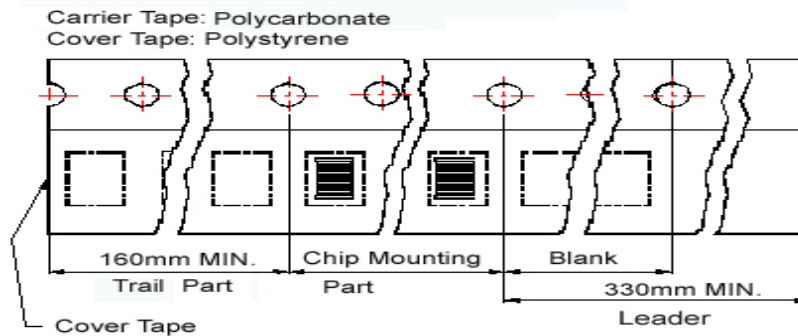
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6-4 Packaging Form

There shall not continuation more than two vacancies of the product.



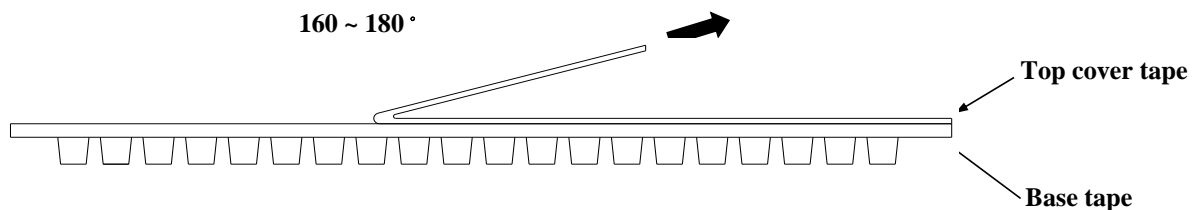
6-5 Cover Tape Peel Strength

The force for tearing off cover tape is 0.05~0.69(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35°C

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



6-6 Packing Quantity

Reel Type : 500 pcs./reel

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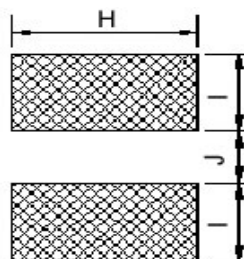
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7. Recommended Soldering Conditions (Please use this product by reflow soldering)

7-1 Recommended Footprint

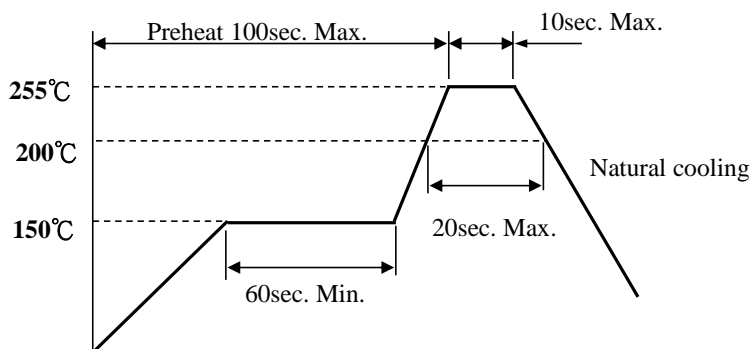
Termination Number : Please refer to the equivalent circuit in chapter 3.



Unit:mm	
H	5.4
I	3.0
J	7.0

7-2 Recommended Reflow Pattern

Reflow : until two times



7-3 Iron Soldering

Use a solder iron of less than 30W when soldering ,do not allow the soldering iron tip directly touch the ferrite body outside of terminal electrode.

2 seconds max. at 280°C.

8. Attention in Case of Using

※Storage Conditions

To maintain the solderability of terminal electrodes:

- 1、Products meet IPC/JEDEC J-STD-020D standard-MSL, level 1
- 2、Recommended products should be used within 6 months form the time of delivery.
- 3、The packaging material should be kept where no chlorine or sulfur exists in the air.

※Transportation

- 1、Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- 2、The use of tweezers or vacuum pick up is strongly recommended for individual components.
- 3、Bulk handling should ensure that abrasion and mechanical shock are minimized.