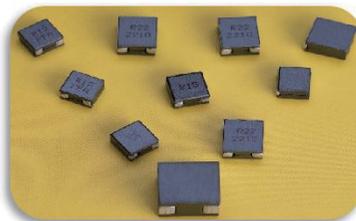


REACH & RoHS
COMPLIANT

1 Features

- ☆ High saturation characteristic core for large saturation current and low loss
- ☆ High precision DCR
- ☆ Closed magnetic circuit design reduces leakage flux
- ☆ Halogen free, RoHS compliant



Application

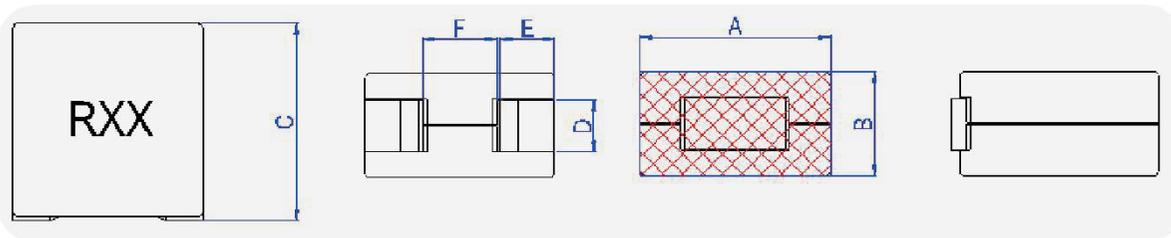
- ☆ Data center, Server, desktop computer, notebook
- ☆ Graphics, memory
- ☆ Industrial equipment, telecom base station

Part number	Initial Inductance (nH)	Tolerance (±%)	DCR (mΩ)	1-Saturation Current@ 25°C (Amps)(typ)	2-Saturation Current@ 100°C (Amps)(typ)	Heating Current (Amps)(typ)
WHPBU-100710N-R10L0	100	15	0.18± 10%	117	100	70
WHPBU-100710N-R12L0	120	15	0.18± 10%	90	80	70
WHPBU-100710N-R15L0	150	15	0.18± 10%	75	75	70
WHPBU-100710N-R18L0	180	15	0.18± 10%	75	65	70
WHPBU-100710N-R22L0	220	15	0.18± 10%	60	50	70
WHPBU-100710N-R30M0	300	20	0.18± 10%	43	33	70
WHPBU-100710N-R33M0	330	20	0.18± 10%	35	30	70
WHPBU-100710N-R47M0	470	20	0.18± 10%	20	15	70

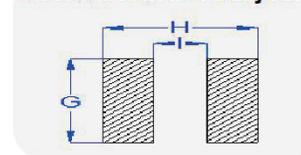
Notes:

Initial Inductance : Testing at 100KHz/1.0V
 Saturation Current : DC current that will cause initial Inductance to drop approximately 20%.
 Heating Current : DC current that will cause an approximate ΔT of 40 °C.
 Note : All test data is referenced to 25 °C ambient.

2 Dimensions (mm)& recommend layout



Recommended Pad Layout



P/N	A	B	C	D	E	F	G	I	H
WHPBU-100710 Series	10.0 Max	7.0 Max	10.0 Max	2.4 ± 0.25	2.5 ± 0.5	4.4 Ref	3	3.9	11

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Su Zhou Voohu Electronic Tech.Co.Ltd

TITLE:
Power Bead inductor

SIZE
A4
UNITS
MM[INCH]

GENERAL TOLERANCES
UNLESS SPECIFIED

APPROVED BY:
Geoffrey.Song

PART NO.:
WHPBU-100710N Series

SACLE
1:1
REV
A0

x±0.35
.x±0.30
x°±3.0°
.x°±2.0°

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REMARK: Surface Mount Package
Normal Applications

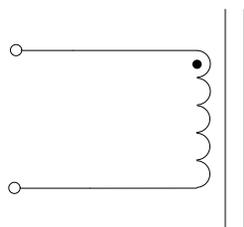
SHEET
1/4

.xx±0.25
.xxx±0.10
.xx°±1.5°
.xxx°±1.0°

DESIGND BY:
Sunny.Xu

REACH & RoHS
COMPLIANT

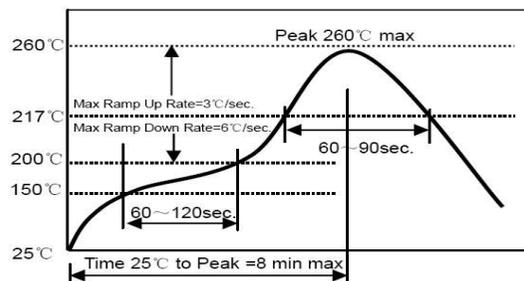
3 Schematics



● — START POINT

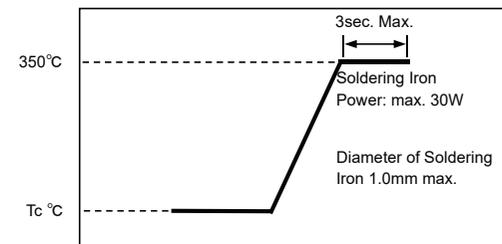
4 Recommended Solder Profile

a. Reflow Profile



Preheat condition: 150 ~200°C/60~120sec.
 Allowed time above 217°C: 60~90sec.
 Max temp: 260°C
 Max time at max temp: 10 sec.
 Solder paste: Sn/3.0Ag/0.5Cu
 Allowed Reflow time: 2x max

b. Iron Soldering Profile



Iron soldering power: Max. 30W
 Pre-heating: 150°C/60sec.
 Soldering Tip temperature: 350°C Max.
 Soldering time: 3sec. Max.
 Solder paste: Sn/3.0Ag/0.5Cu
 Max.1 times for iron soldering

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SACLE
1:1

REV
A0

$x \pm 0.35$	$x^\circ \pm 3.0^\circ$
$.x \pm 0.30$	$.x^\circ \pm 2.0^\circ$

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SHEET
2/4



$.xx \pm 0.25$	$.xx^\circ \pm 1.5^\circ$
$.xxx \pm 0.10$	$.xxx^\circ \pm 1.0^\circ$

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2 5 Reliability test

NO.	Test Item	Specification and Requirement	Test Condition
1	Solderability	1. No case deformation or change in visual 2. New solder coverage More than 95%	1.Preheat: 155℃±5℃ , 60S±2S 2.Tin: lead-free. 3.Temperature:240℃±5℃ , flux 3.0S±0.5S.
2	Mechanical shock	1. No case deformation or change in visual 2. ΔL/Lo ≅ ±10%	1. Acceleration: 100G 2. Pulse time: 6ms 3. 3 times in each positive and negative direction of 3 mutual perpendicular directions
3	Mechanical vibration	1. No case deformation or change in visual 2. ΔL/Lo ≅ ±10%	1. Reflow: 2times 2. Frequency: 10HZ~55HZ~10HZ, 20 Min/Cycles 3. Amplitude: 1.52 mm±10% 4. Directions: X,Y,Z 5. Time: 12 cycle / direction
4	Thermal Shock	Inductance change: Within ± 10% Without distinct damage in visual	1. First -55℃ for 30 minutes, last 125℃ for 30 minutes as 1 cycle. Go through 1000 cycles. 2. Max transfer time is 3 minutes. 3. Measured at room temperature after placing for 24±2 hours
5	Biased Humidity	Inductance change: Within ± 10% Without distinct damage in visual	1.Reflow 2 times, 2.85℃±3℃,85%±3%RH,1000 hours 3.Measured at room temperature after placing for 24±2 hours
6	Low temperature storage	Inductance change: Within ± 10% Without distinct damage in visual	1. Temperature: -55 ± 2℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours
7	High temperature storage	Inductance change: Within ± 10% Without distinct damage in visual	1. Temperature: +125 ± 2℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours

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x±0.35	x°±3.0°
.x±0.30	.x°±2.0°

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3/4



.xx±0.25	.xx°±1.5°
.xxx±0.10	.xxx°±1.0°

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1 REACH & RoHS COMPLIANT



2 REMINDERS

- ☆ The best assembly quality guarantee period of product: 12 months (From shipment date)
Storage condition : seal in packaging, (temperature: 5 to 40°C, humidity: 10 to 75% RH or less).
- ☆ If taking out for use, the remaining products should be sealed in plastic bags and preserved in accordance with the above conditions, to avoid oxidation of electrodes and affect soldering status.
- ☆ Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- ☆ Before soldering, be sure to preheat components.
The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- ☆ Always handle products with care to avoid damage.
- ☆ Do not touch electrodes with bare hands directly, as oil secretions may inhibit soldering.
Always ensure optimum conditions for soldering.
- ☆ Soldering corrections after mounting should be within the range of the conditions determined in the specifications.If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- ☆ Use a wrist band to discharge static electricity in your body through the grounding wire.
- ☆ Do not expose the products to magnets or magnetic fields.
- ☆ Do not use for a purpose outside of the contents regulated in the delivery specifications.

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6 GENERAL TOLERANCES
UNLESS SPECIFIED

7 APPROVED BY:
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WHPBU-100710N Series

5 SACLE
1:1 REV
A0

6 .xx±0.35 .x°±3.0°
.x±0.30 .x°±2.0°

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4/4



6 .xx±0.25 .xx°±1.5°
.xxx±0.10 .xxx°±1.0°

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