

## Product Specification for Approval

WE ARE PLEASED IN SUBMITTING OUR SAMPLES WITH SPECIFICATION TO YOU FOR APPROVAL.

<b>CUSTOMER</b>	:	
<b>DESCRIPTION</b>	:	<b>POWER INDUCTOR</b>
<b>MNC P/N</b>	:	<b>MHW2014SG120K</b>
<b>VERSION</b>	:	<b>A0</b>
<b>CUSTOMER P/N</b>	:	
<b>ISSUED DATE</b>	:	<b>2020/6/9</b>
<b>PHOTO OF PRODUCT</b>	:	
<b>WEIGHT</b>	:	<b>24.7g</b>
<b>MADE IN</b>	:	<b>CHINA</b>



APPROVED BY MNC		
PREPARED BY	CHECKED BY	APPROVED BY
Fanny	Renbo Zhu	Zhiliang Gong

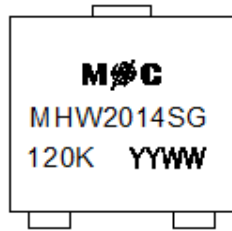
APPROVED BY CUSTOMER
SIGNATURE OR STAMP

1. PLEASE SEND BACK US A COPY OF THE SPECIFICATION WITH YOUR STAMP OR SIGNATURE ONCE THE SAMPLES APPROVED.
2. IT WILL BE DEEMED THE SAMPLES TO BE APPROVED IF NO FEEDBACK.

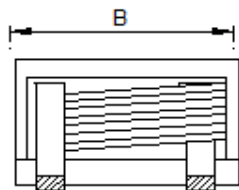
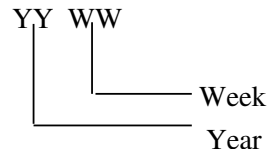
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 Add: Shipai Town, Dongguan City, Guangdong Province, China

TEL: +86-769-86921000  
 FAX: +86-769-81701563

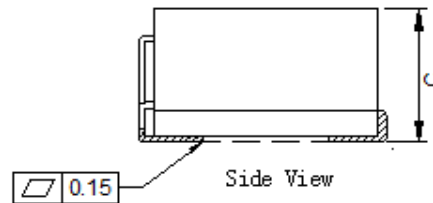


**SPECIFICATION**
**Part No. MHW2014SG120K**
**A. MECHANICAL: (UNITS: mm)**


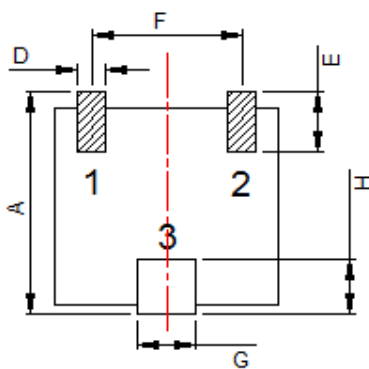
Top View



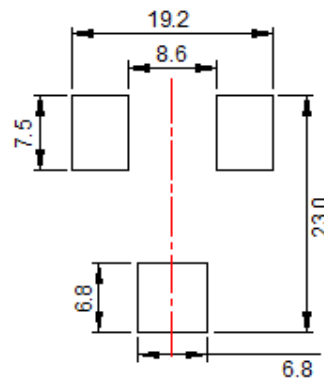
Front View



Side View



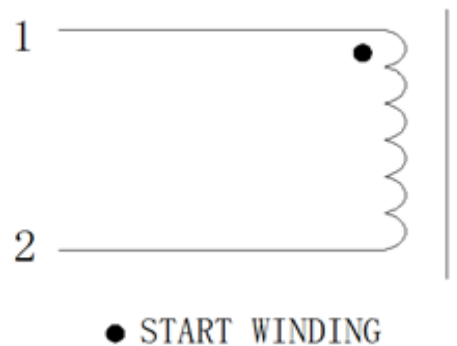
Bottom View



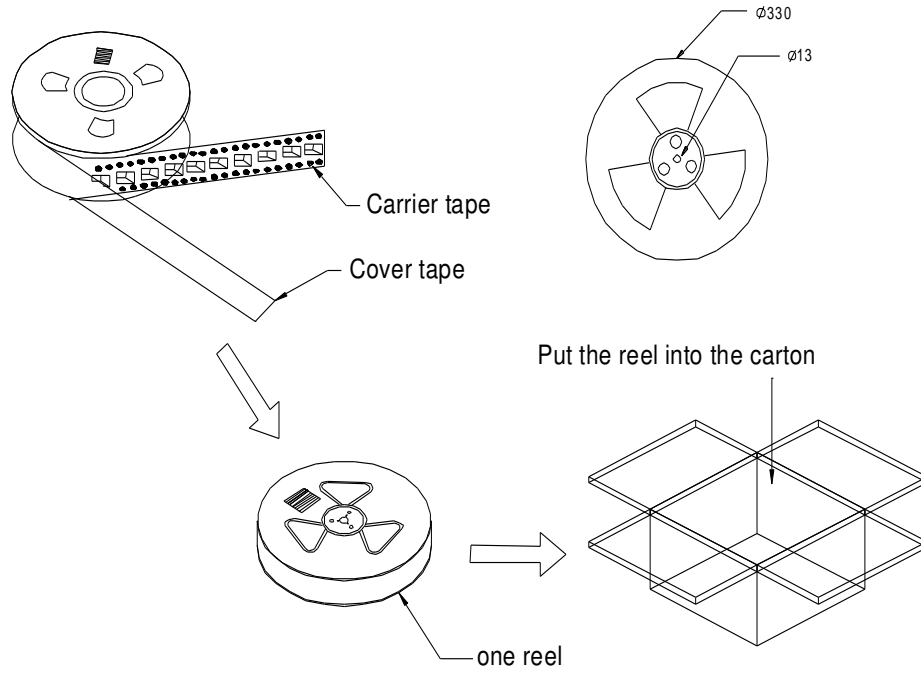
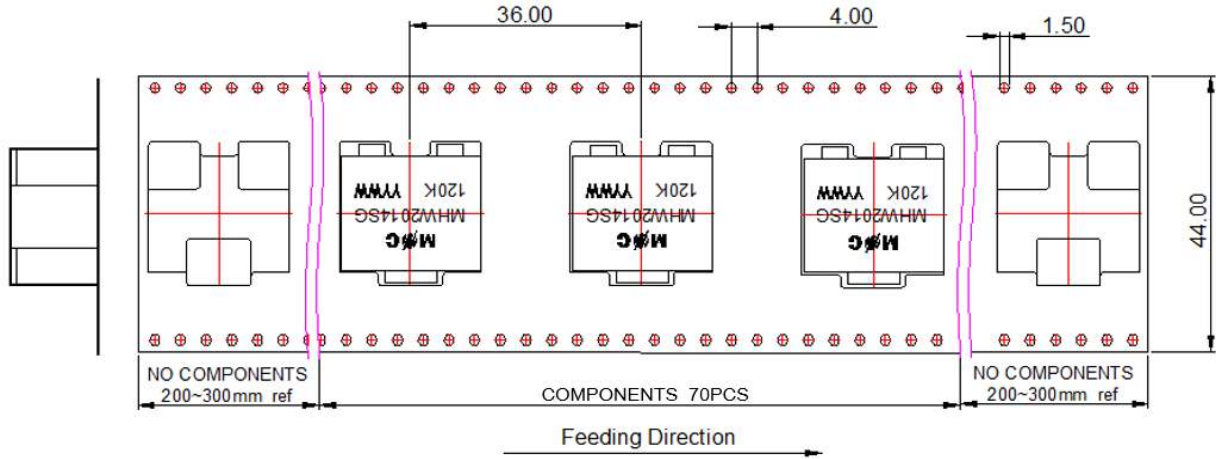
Recommended PAD Layout

1. Unless otherwise specified all tolerances are:  $\pm 0.25\text{mm}$
2. All pin length don't include tin icicles

DIM	MILLIMETERS
A	22.00Max
B	22.30Max
C	14.10 $\pm$ 0.40
D	2.80 $\pm$ 0.30
E	6.00 $\pm$ 0.50
F	14.40 $\pm$ 0.50
G	5.50 $\pm$ 0.30
H	5.50 $\pm$ 0.30

**SPECIFICATION**
**Part No. MHW2014SG120K**
**B. SCHEMATIC :**

**C. ELECTRICAL SPECIFICATION @25°C**

ITEM	SPECIFICATION	TEST CONDITION	TEST EQUIPMENT
L: 1-2	12.0uH±10%	100KHz,1V	WK3260B OR EQU.
Isat1:1-2	22A (L drop 20%MAX)	100KHz,1V AT 25 °C	WK3260B+3265B
Isat2:1-2	16.8A (L drop 20%MAX)	100KHz,1V AT 100 °C	WK3260B+3265B
Irms:1-2	12.0A	100KHz,1V AT 25 °C	WK3260B+3265B
DC RESISTANCE: 1-2	5.0mΩ Max	25°C	TH2512B OR EQU.
HI-POT: WDG-Core	200VDC	2mA,2S	TH9201S OR EQU
OPERATING TEMPERATURE RANGE	-40°C to 125°C(Including self temperature rise)		
STORAGE TEMPERATURE RANGE	-40°C to 125°C		

**SPECIFICATION**
**Part No. MHW2014SG120K**
**1. PACKING:**
**a. PACKAGING AS BELOW (ONLY FOR REFERENCE):**

**b. Q'TY:**

- 70 pcs/reel
- 5 reel/carton
- 350 pcs/carton

**c. LABEL:**

**REMARK:**

ABOVE PACKING IS FOR YOUR REFERENCE ONLY, WHICH MIGHT BE CHANGED WITHOUT NOTICE.

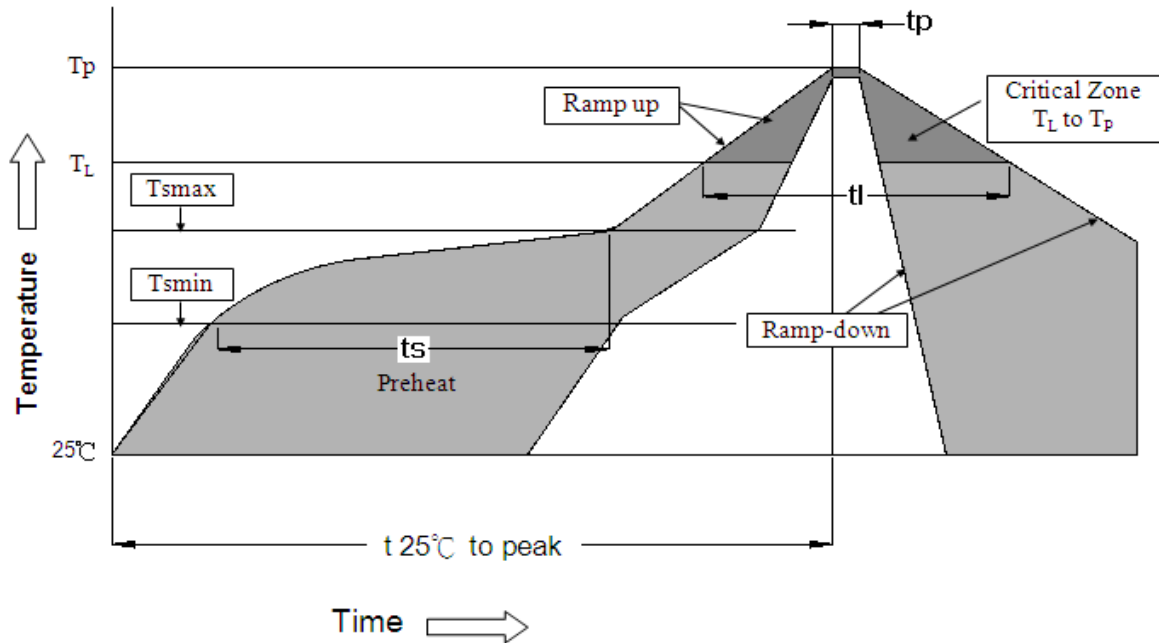
**MATERIAL LIST**
**Part No. MHW2014SG120K**
**BOM**

MATERIAL LIST					
NO.	ITEM	MATERIAL	RATING	SUPPLIER OF MATERIAL	UL
1	CORE	Mn-Zn DMR96	-----	DMEGC	N/A
		Mn-Zn JNP96	-----	JIANUO	N/A
2	TAPE	PF	180℃	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	E165111
		92	180℃	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	E17385
3	PIN	C1100	-----	SHENZHEN MINGSCHIN INDUSTRIAL MATERIAL CO., LTD.	N/A
		C1100	-----	DONGGUAN CITY SHIPAI JINGHE METALS TRADE SHOP	N/A
4	EPOXY	6911 G2	-----	MIANYANG WELLS	N/A
5	Flat Wire	SFT-EI/AIWJ	220℃	WELL ASCENT ELECTRONIC (GANZHOU) CO LTD	E318511
		EI/AIW	220℃	ZHUHAI SUNTEK WIRE CO., LTD.	E234867
6	VARNISH	V1630FS	180℃	ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC	E87039
		BC-346A	180℃	JOHN C DOLPH CO	E317427

**RECOMMENDED SOLDERING PROFILE**

**Part No. MHW2014SG120K**

**1. RECOMMENDED REFLOW SOLDERING PROFILE:**



$T_L = 217^\circ\text{C}$

$T_p = 245^\circ\text{C}$

$t_s = 60-120\text{s}$      $T_s \text{ max} = 200^\circ\text{C}$      $T_s \text{ min} = 150^\circ\text{C}$

$t_l = 60-150\text{s}$      $t_p = 20-40\text{s}$      $T_{25^\circ\text{C to peak}} = 8\text{min max}$

Ramp up rate =  $3^\circ\text{C/s max}$

Ramp down rate =  $6^\circ\text{C/s max}$

\*RoHS Compliant

\*Solder Paste SAC 305 Sn 96.5/Ag 3.0/Cu 0.5

\*Silkscreen thickness: 0.15mm Min

**2. MOISTURE SENSITIVE LEVEL:**

2.1. Level: 1

2.2. Shelf Life: Unlimited

2.3. Storage Condition:  $\leq 30^\circ\text{C}/85\% \text{ RH}$