

## SPECIFICATION FOR APPROVAL

<p><b>CUSTOMER'S APPROVAL CHOP</b></p>  <p>Approval's condition: _____</p> <p>Approved date: _____</p>
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KINDLY RETURN A SET WITH YOUR COMPANY'S OFFICIAL  
STAMP ON APPROVAL OF THIS ITEM

**CUSTOMER'S NAME:** \_\_\_\_\_

**CUSTOMER'S MODEL NO. :** \_\_\_\_\_

**CUSTOMER'S PART NO. :** \_\_\_\_\_

**DESCRIPTION:** \_\_\_\_\_ **PQ2016** \_\_\_\_\_

**Semitel'S MODEL NO. :** \_\_\_\_\_ **PQ2016-614** \_\_\_\_\_

**VERSION:** \_\_\_\_\_ **C** \_\_\_\_\_

**DATE:** \_\_\_\_\_ **2020/1/14** \_\_\_\_\_

**Attachments:**

- Product specification
- Sample Qty. :
- Test data

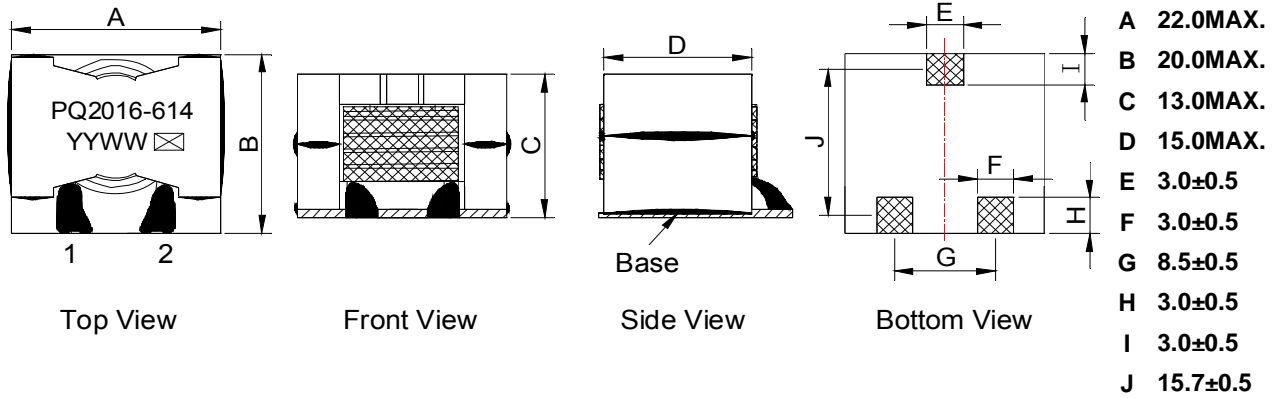
Prepared By	Checked By	Approved By
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# Product Specification

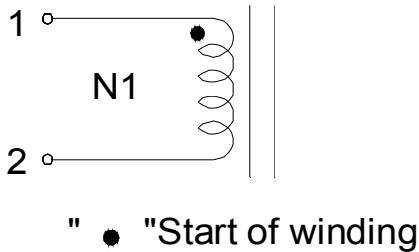
## 1. Physical Dimensions (Unit:mm)



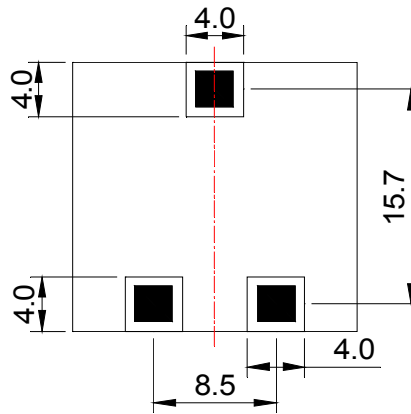
**Notes:**

- \*Marking type is laser printing
- \*YY: Year Code; WW: Week Code
- \* :When making samples, S is used to represent the product is a sample.
- \* :Use different letters or numbers to represent the products are produced from different production lines .
- \*Size A and D not including Epoxy
- \*Coplanarity Requirement: Less than 0.15mm

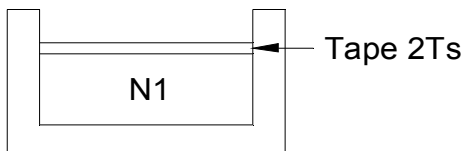
## 2.Connection



## 3.Recommended Pad Layout (Unit:mm)



## 4.Structure of Products



## 5.No of turns & Wire spec.

No	No of Pin	No of turns	Wire Spec
N1	1--2	15Ts	ø1.0mm PEWH/U

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VERSION:	C	CUSTOMER'S PART NO. :	
DATE:	2020/1/14		

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### 6. Electrical Characteristics

Items	Winding	Specifications	Test Conditions
Inductance	L(1-2)	33uH±10%	at 200kHz, 1Vrms
DC.Bias	L(1-2)	28uH MIN.	at 200kHz, 1Vrms, 8A.DC
DCR	R(1-2)	25mΩ MAX.	at 25°C

### 7. Bill of Material

No	Item	Material Name	Manufacturer	UL File No	SGS File No
1	Core	FERRITE CORE JCP-95	FCRI or Equivalent	NIL	CANEC1813462601
2	Base	PM-9630	SUMITOMO (SumiDurez) or Equivalent	E41429	SHAEC1804919410
3	Copper Wire	Polyurethane wire PEWH/U	PA CIFIC or Equivalent	E201757	A2180198365101E
4	Polyimide Tape	Brown adhesive plastic HN NC 0.025mm V-0	RUNSEA (RAYITEK) or Equivalent	E339977	CANML1808714601
5	EPOXY	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1826217301
6	Solder	Lead free solder	HONGTAIZHOU or Equivalent	NIL	CANEC1812220901

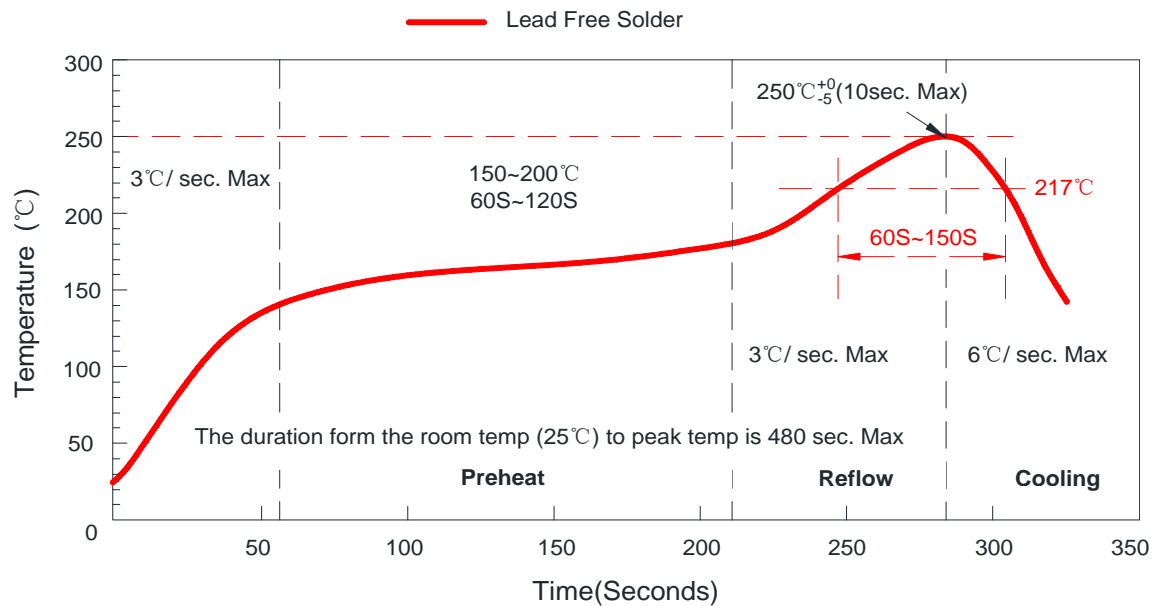
Semitel'S MODEL NO. :	PQ2016-614	CUSTOMER'S MODEL NO. :	
VERSION:	C	CUSTOMER'S PART NO. :	
DATE:	2020/1/14		

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### 8.Recommended Temperature Conditions of Air Reflow Soldering

#### Test Solderability Temperature Profile



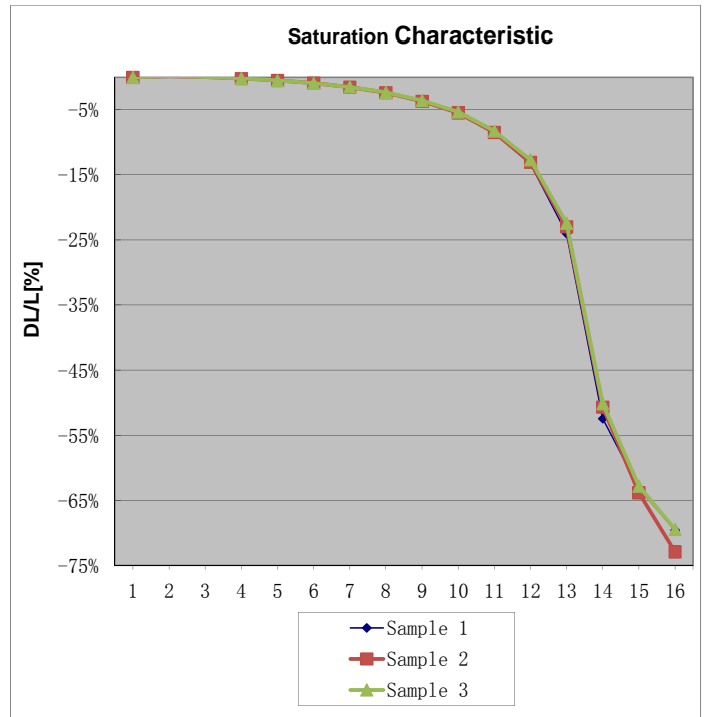
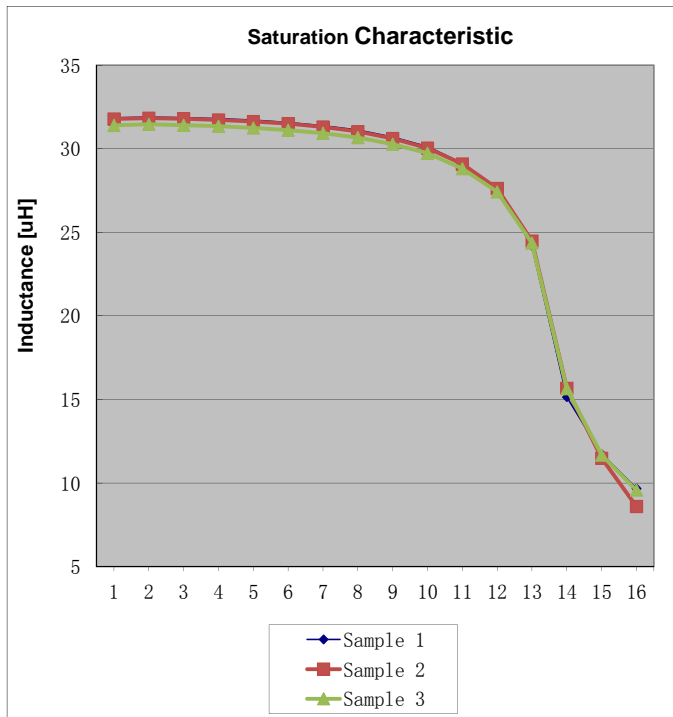
<b>Profile Feature</b>	
Average Ramp-Up Rate (T <sub>max</sub> to T <sub>p</sub> )	3°C/Second Max.
<b>Preheat</b>	
-Temperature Min. (T <sub>min</sub> )	150°C
-Temperature Max. (T <sub>max</sub> )	200°C
-Time (T <sub>min</sub> to T <sub>max</sub> )	60-120 Seconds
<b>Time maintained above:</b>	
-Temperature (T <sub>L</sub> )	217°C
-Time (T <sub>L</sub> )	60-150 Seconds
Peak/Classification Temperature (T <sub>p</sub> )	250°C
Time within 5°C of actual Peak Temperature (T <sub>p</sub> )	10 Seconds Max.
Ramp-Down Rate	6°C/Second Max.
Time 25°C to Peak Temperature	8 Minutes Max.

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## Product Specification

### 9. Saturation Characteristic


	0A	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A
	uH	uH	uH	uH	uH	uH	uH	uH	uH	uH	uH	uH	uH	uH	uH	uH
1	31.85	31.90	31.86	31.80	31.71	31.57	31.38	31.12	30.70	30.12	29.13	27.62	24.20	15.14	11.74	9.68
DL/L[%]	0.0%	0.16%	0.0%	-0.2%	-0.4%	-0.9%	-1.5%	-2.3%	-3.6%	-5.4%	-8.5%	-13.3%	-24.0%	-52.5%	-63.1%	-69.6%
2	31.78	31.83	31.79	31.72	31.63	31.50	31.30	31.03	30.61	30.04	29.09	27.63	24.48	15.67	11.48	8.60
DL/L[%]	0.0%	0.16%	0.0%	-0.2%	-0.5%	-0.9%	-1.5%	-2.4%	-3.7%	-5.5%	-8.5%	-13.1%	-23.0%	-50.7%	-63.9%	-72.9%
3	31.40	31.46	31.41	31.35	31.24	31.11	30.93	30.67	30.28	29.73	28.81	27.42	24.36	15.65	11.67	9.58
DL/L[%]	0.0%	0.19%	0.0%	-0.2%	-0.5%	-0.9%	-1.5%	-2.3%	-3.6%	-5.3%	-8.2%	-12.7%	-22.4%	-50.2%	-62.8%	-69.5%

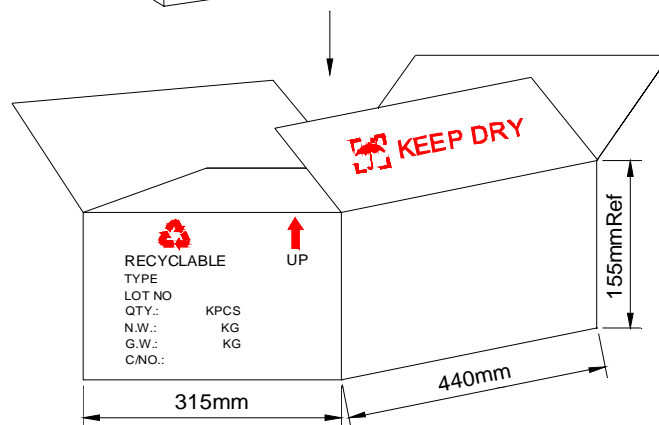
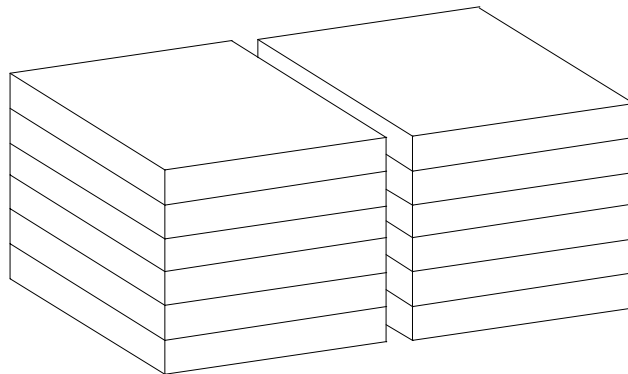
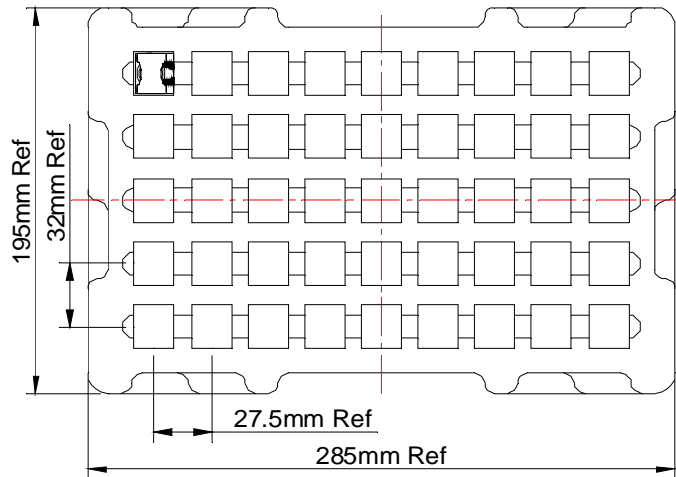


Semitel'S MODEL NO. :	PQ2016-614	CUSTOMER'S MODEL NO. :	
VERSION:	C	CUSTOMER'S PART NO. :	
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### 10.Packing Request

- (1), Every blister tray can contain 45pcs products. 
- (2), Every carton box contains 540pcs products,with a total of 6 layers.



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## Test Report

Test Instruments										
	HP4284A	LCR METER 1062 1720	VR131							
NO	DC.Bias	DC.Bias	DCR							
	L(1-2)	L(1-2)	R(1-2)							
	at 200kHz,1Vrms	at 200kHz,1Vrms, 8A.DC	at 25°C							
	33uH±10%	28uH MIN.	25mΩ MAX.							
1	32.10	31.30	13.41							
2	33.40	32.10	13.45							
3	33.30	32.20	13.51							
4										
5										
MIN.	32.10	31.30	13.41							
MAX.	33.40	32.20	13.51							
AVG.	32.93	31.87	13.46							
Result	Passed	Passed	Passed							

Overall Dimensions Test					Measurement Tools: Caliper (Unit:mm)					
NO	A	B	C	D	E	F	G	H	I	J
	22.0MAX.	20.0MAX.	13.0MAX.	15.0MAX.	3.0±0.5	3.0±0.5	8.5±0.5	3.0±0.5	3.0±0.5	15.7±0.5
1	21.06	18.85	12.99	14.17	2.85	2.89	8.42	2.84	2.78	15.96
2	21.05	18.83	12.90	14.10	2.87	2.89	8.41	2.81	2.89	15.97
3	21.06	18.76	12.92	14.15	2.87	2.90	8.41	2.81	2.85	16.03
4										
5										
MIN.	21.05	18.76	12.90	14.10	2.85	2.89	8.41	2.81	2.78	15.96
MAX.	21.06	18.85	12.99	14.17	2.87	2.90	8.42	2.84	2.89	16.03
AVG.	21.06	18.81	12.94	14.14	2.86	2.89	8.41	2.82	2.84	15.99
Result	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed

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