

## 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:** \_\_\_\_\_  
**EP13**

**Semitel'S MODEL NO. :** \_\_\_\_\_  
**EP13-696**

**VERSION:** \_\_\_\_\_  
**A**

**DATE:** \_\_\_\_\_  
**2020/9/16**

- Attachments:**
- Product Specification
  - Sample Qty. :
  - Test Data

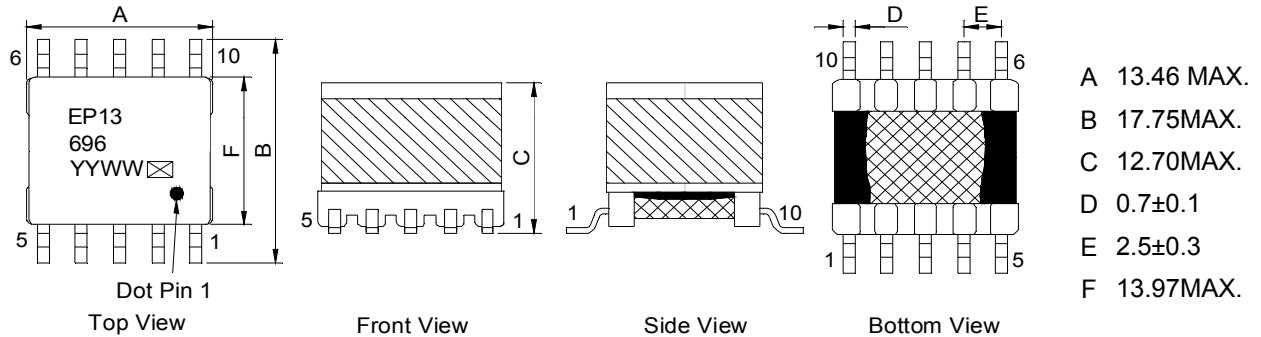
Prepared By	Checked By	Approved By
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# Product Specification

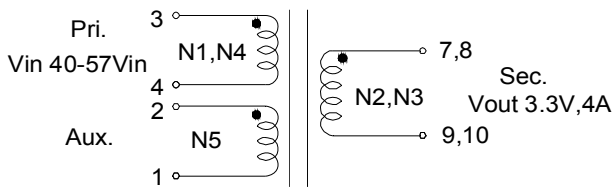
## 1. Physical Dimensions (Unit:mm)



### Notes:

- \*Marking type is laser printing, Dot indicates the location of pin#1.
- \*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 B not including soldering tags
- \*Coplanarity requirement: Less than 0.10mm

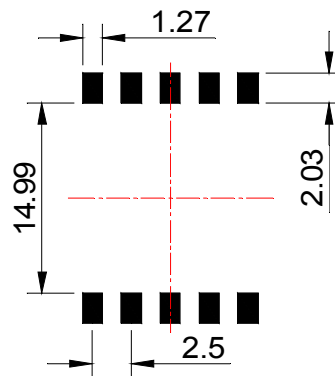
## 2. Connection



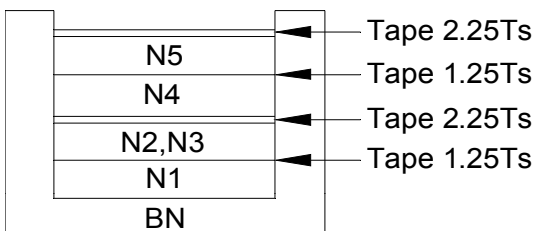
" • "Start of winding

- \*Customer to tie terminals 7&8 and 9&10 on PC board.
- \*Application of the transformer allows for the leadwires between terminals 7&8 and 9&10 to solder bridge.

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



## 4.Structure of Products



## 5.No of Turns & Wire Spec

No	No of Pin	Turns	Wire Spec
N1	3--4	30 Ts	ø0.22 mm* 1P P180
N2,N3	7,8-9,10	5 Ts	ø0.25 mm* 6P P180
N4	3--4	30 Ts	ø0.22 mm* 1P P180
N5	2--1	15 Ts	ø0.20 mm* 1P P180

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### 6. Electrical Characteristics

\*Operating temperature range: -40°C to +125°C .

\*Storage temperature range: -40°C to +125°C .

Items	Winding	Specifications	Test Conditions
Inductance	L(3-4)	127uH ±10%	at 250kHz,0.1Vrms
LK-Inductance	LK(3-4) Tie 1,2,7,8,9,10	1.25uH MAX.	at 250kHz,0.1Vrms
DCR	R(3-4)	255mΩ MAX.	at 25°C
	R(2-1)	310mΩ MAX.	
	R(7-9)	24mΩ MAX.	
	R(8-10)	24mΩ MAX.	
Turns Ratio	(3-4):(2-1):(7,8-9,10)	30:15:5;±3%	at 250kHz,0.1Vrms
Hi-Pot	Pri. to Sec.	1500VAC	3mA.2SEC
	Win. to Core.	500VAC	3mA.2SEC

### 7. Bill of Material

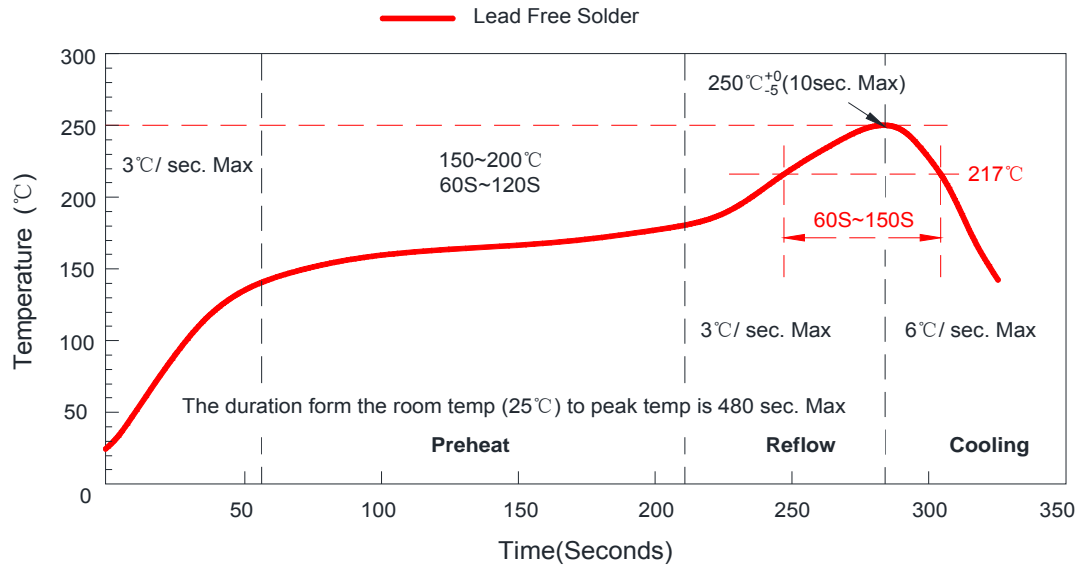
No	Items	Material Name	Manufacturer	UL File No	SGS File No
1	Core	FERRITE CORE JCP-95	FCRI or Equivalent	NIL	A2200234874101001R1
2	Bobbin	PM-9630	SUMITOMO (SumiDurez) or Equivalent	E41429	SHAEC2002442505
3	Copper Wire	Polyurethane bare wire (Cu) Polysol 180	ELEKTRISOLA or Equivalent	E258243	CE/2020/34972
OR	Copper Wire	Polyurethane wire UEWH/U	PACIFIC or Equivalent	E201757	A219029024010101E
4	Polyimide Tape	Brown adhesive plastic HN NC 0.025mm V-0	RUNSEA (RAYITEK) or Equivalent	E339977	SZXEC2000536905
5	EPOXY	TH320	TIAN HUAN or Equivalent	E257593	SZXEC1902353001
6	EPOXY	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1925290501
7	Varnish	8562*	HANG CHEUNG or Equivalent	E200154	CANEC1900008105
8	Solder	Lead free solder	HONGTAIZHOU or Equivalent	NIL	SZXEC2001415205

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

Test Solderability Temperature Profile



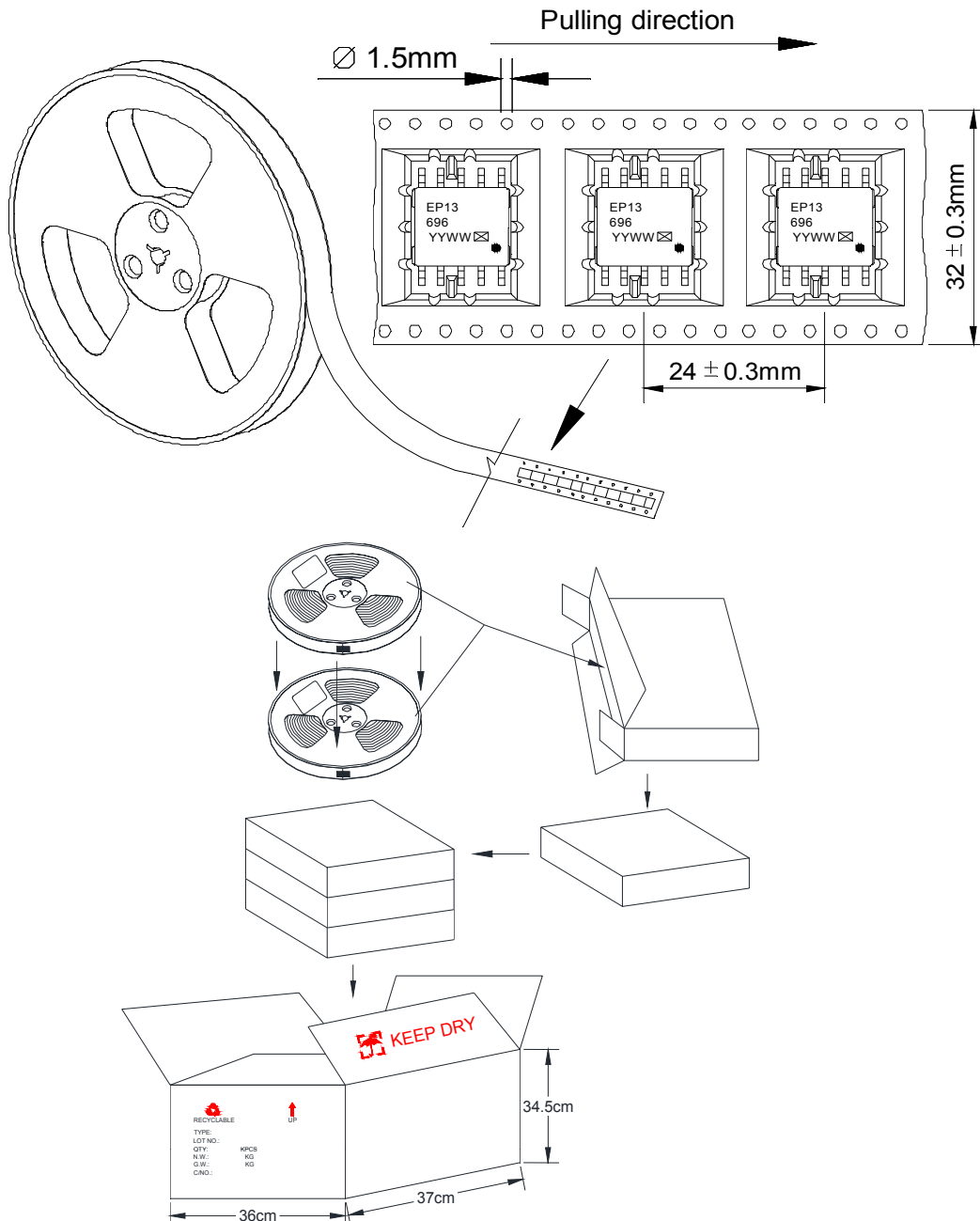
<b>Profile Feature</b>	
Average Ramp-Up Rate (T <sub>smax</sub> to T <sub>p</sub> )	3°C/Second Max.
<b>Preheat</b>	
-Temperature Min. (T <sub>smin</sub> )	150°C
-Temperature Max. (T <sub>smax</sub> )	200°C
-Time (T <sub>smin</sub> to T <sub>smax</sub> )	60-120 Seconds
<b>Time maintained above:</b>	
-Temperature (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 PeakTemperature (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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## 9.Packing Request

- \*Every roll of the carrier tape can contain 180pcs products.
- \*Every small packing box contains two rolls of carrier tape. Total quantity: 360pcs.
- \*Every carton box contains 3 small packing boxes. Total quantity: 1080pcs.



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## Test Report

Test Instruments									
	HP4284A	HP4284A	VR131				HP4284A	CS2670A	
NO	Inductance	LK-Inductance	DCR				Turns Ratio	Hi-Pot	
	at 250kHz,0.1Vrms	at 250kHz,0.1Vrms	at 25°C				at 250kHz,0.1Vrms	3mA.2SEC	3mA.2SEC
	L(3-4)	LK(3-4) Tie 1,2,7,8,9,10	R(3-4)	R(2-1)	R(7-9)	R(8-10)	(3-4):(2-1):(7,8-9,10)	Pri. to Sec.	Win. to Core.
	127uH ±10%	1.25uH MAX.	255mΩ MAX.	310mΩ MAX.	24mΩ MAX.	24mΩ MAX.	30:15:5;±3%	1500VAC	500VAC
1									
2									
3									
4									
5									
MIN.	0.00	0.00	0.00	0.00	0.00	0.00			
MAX.	0.00	0.00	0.00	0.00	0.00	0.00			
AVG.	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Result	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed
Overall Dimensions Test							Measurement Tools: Caliper (Unit:mm)		
NO	A	B	C	D	E	F			
	13.46 MAX.	17.75MAX.	12.70MAX.	0.7±0.1	2.5±0.3	13.97MAX.			
1									
2									
3									
4									
5									
MIN.	0.00	0.00	0.00	0.00	0.00	0.00			
MAX.	0.00	0.00	0.00	0.00	0.00	0.00			
AVG.	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Result	Passed	Passed	Passed	Passed	Passed	Passed			

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