SPECIFICATION FOR APPROVAL

CUSTOMER'S APPROVAL CHOP

Approval's condition: _____

Approved date: _____

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. : **EP13-678**

VERSION: **A**

DATE: **2020/12/21**

Attachments:

- ☐ Product Specification
- ☐ Sample Qty. :
- ☐ Test Data

Prepared By	Checked By	Approved By
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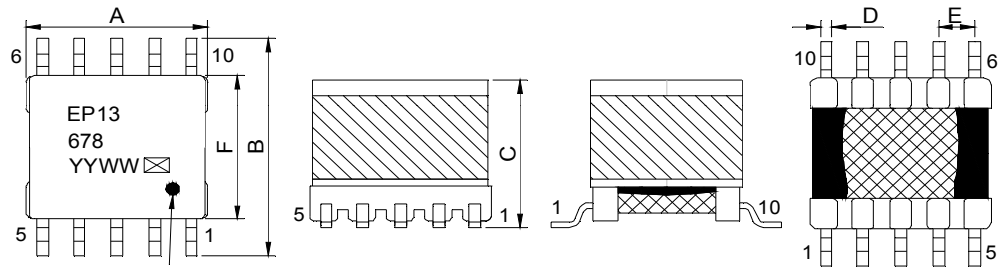
Revision Record

Version	Revision Date	Revision For Items	Reason For Revision
A	2020/12/21	New Product for SI3406 12V 1.25A	-

Semitel'S MODEL NO. :	EP13-678	CUSTOMER'S MODEL NO. :	
VERSION:	A	CUSTOMER'S PART NO. :	
DATE:	2020/12/21		

Product Specification

1.Physical Dimensions (Unit:mm)



A 13.46 MAX.
B 17.75MAX.
C 12.70MAX.
D 0.7±0.1
E 2.5±0.3
F 13.97MAX.

Notes:

*Marking type is laser printing,Dot indicates the location of pin#1.

*YY: Year Code; WW: Week Code

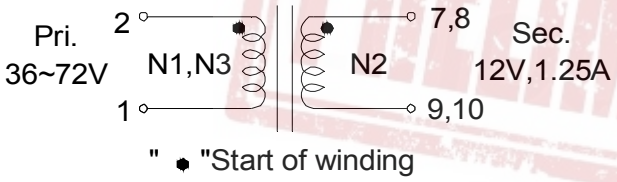
* ☒ :When making samples, S is used to represent the product is a sample.

* ☒ :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

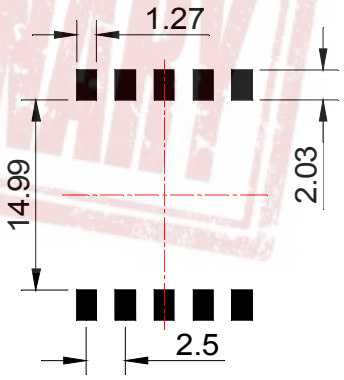
2. Connection



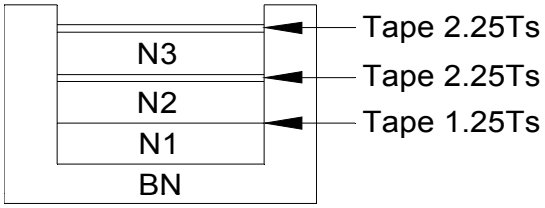
*Customer to tie terminals 7&8 and 9&10 on PC board.

*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	2--1	20 Ts	ø0.17 mm*2P P180
N2	7,8--9,10	20 Ts	ø0.16 mm*4P P180
N3	2--1	20 Ts	ø0.17 mm*2P P180

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Product Specification

6.Electrical Characteristics

***Operating temperature range: -40℃ to +125℃ .**

***Storage temperature range: -40℃ to +125℃ .**

Items	Winding	Specifications	Test Conditions
Inductance	L(2-1)	40uH±10%	at 200kHz,0.2Vrms
DC.Bias	L(2-1)	L2.0A/L0A≥80%	at 200kHz,0.2Vrms @2A
LK-Inductance	LK(2-1) Tie 7,8,9,10	0.566uH MAX.	at 200kHz,0.2Vrms
DCR	R(2-1)	120mΩ MAX.	at 25℃
	R(7,8-9,10)	155mΩ MAX.	
Turns Ratio	(2-1):(7,8-9,10)	20:20;±3%	at 200kHz,0.2Vrms
Hi-Pot	Pri. to Sec.	1500VAC	5mA3SEC
	Win. to Core.	500VAC	5mA3SEC

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	A220035992510301E
4	Polyimide Tape	Brown adhesive plastic HN NC 0.025mm V-0	RUNSEA (RAYITEK)or Equivalent	E339977	SZXEC2000536905
5	EPOXY	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1925290501
6	Varnish	8562*	HANG CHEUNG or Equivalent	E200154	CANEC2000055005
7	Solder	Lead free solder	HONGTAIZHOU or Equivalent	NIL	SZXEC2001415205

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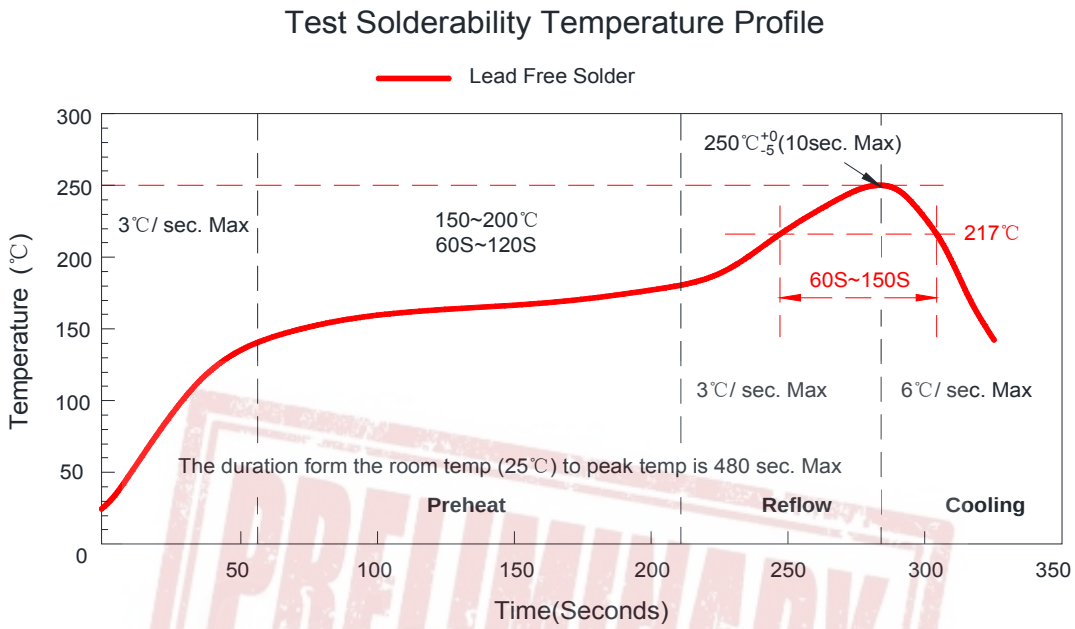
8.Recommended Temperature Conditions of Air Reflow Soldering



Profile Feature	
Average Ramp-Up Rate (Tsmax to Tp)	3℃/Second Max.
Preheat	
-Temperature Min. (Tsmin)	150℃
-Temperature Max. (Tsmax)	200℃
-Time (Tsmin to Tsmax)	60-120 Seconds
Time maintained above:	
-Temperature (TL)	217℃
-Time (TL)	60-150 Seconds
Peak/Classification Temperature (Tp)	250℃
Time within 5℃ of actual PeakTemperature (Tp)	10 Seconds Max.
Ramp-Down Rate	6℃/Second Max.
Time 25℃ to Peak Temperature	8 Minutes Max.

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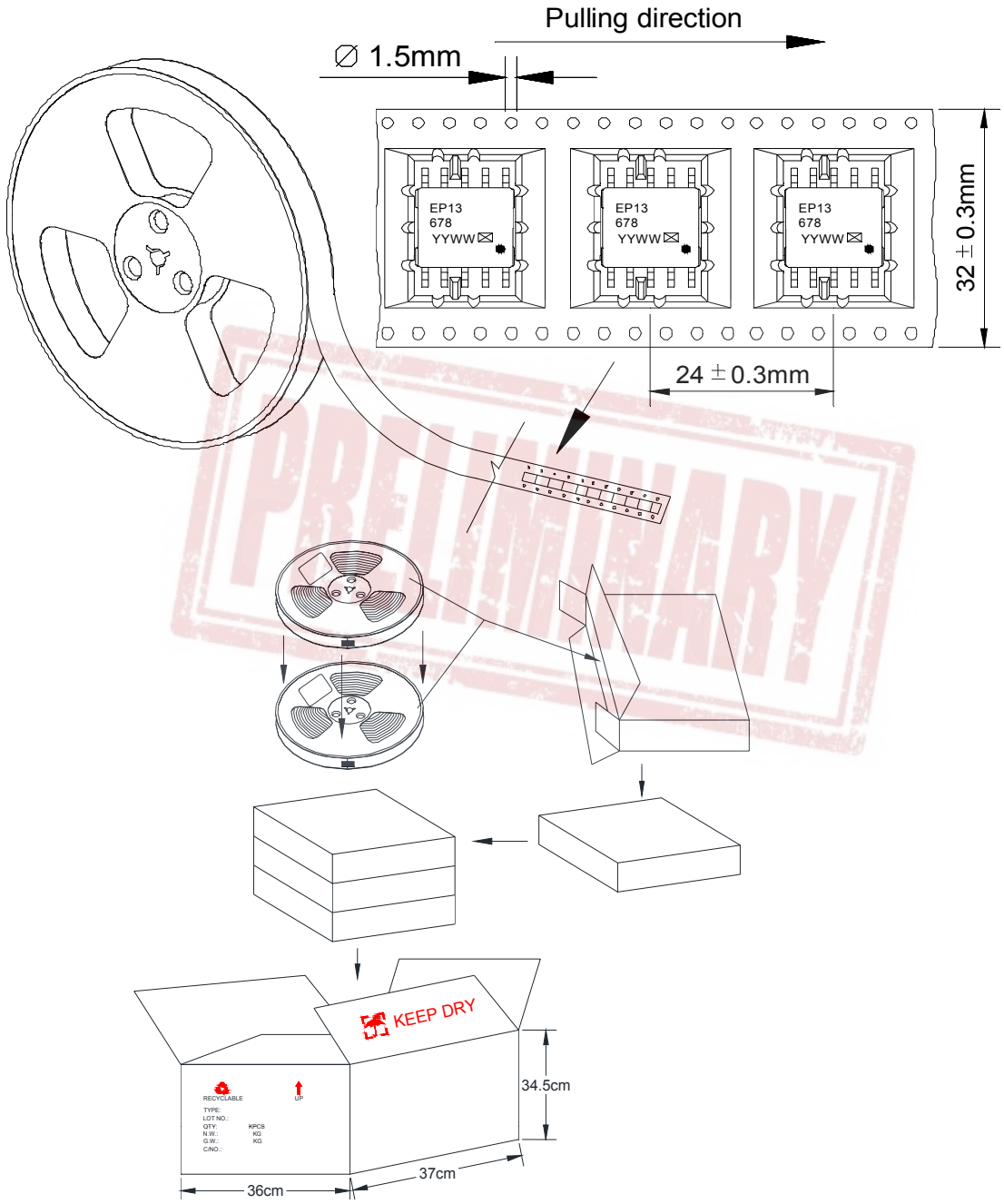
9.Packing Request

*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	HP4284A	VR131		HP4284A	CS2670A	
NO	Inductance	DC.Bias	LK-Inductance	DCR		Turns Ratio	Hi-Pot	
	at 200kHz,0.2Vrms	at 200kHz,0.2Vrms @2A	at 200kHz,0.2Vrms	at 25℃		at 200kHz,0.2Vrms	5mA3SEC	5mA3SEC
	L(2-1)	L(2-1)	LK(2-1) Tie 7,8,9,10	R(2-1)	R(7,8-9,10)	(2-1):(7,8-9,10)	Pri. to Sec.	Win. to Core.
	40uH±10%	L2.0A/L0A≥80%	0.566uH MAX.	120mΩ MAX.	155mΩ MAX.	20:20;±3%	1500VAC	500VAC
1	37.00	36.80	0.32	88.00	96.00	Passed	Passed	Passed
2								
3								
4								
5								
MIN.	37.00	36.80	0.32	88.00	96.00			
MAX.	37.00	36.80	0.32	88.00	96.00			
AVG.	37.00	36.80	0.32	88.00	96.00			
Result	**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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