

## SPECIFICATION FOR APPROVAL

<b>CUSTOMER'S APPROVAL CHOP</b>	
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. :** \_\_\_\_\_  
**EP13-334**

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

**DATE:** \_\_\_\_\_  
**2017/11/23**

**Attachments:**

- Product Specification
- Sample Qty. :
- Test Data

Prepared By	Checked By	Approved By
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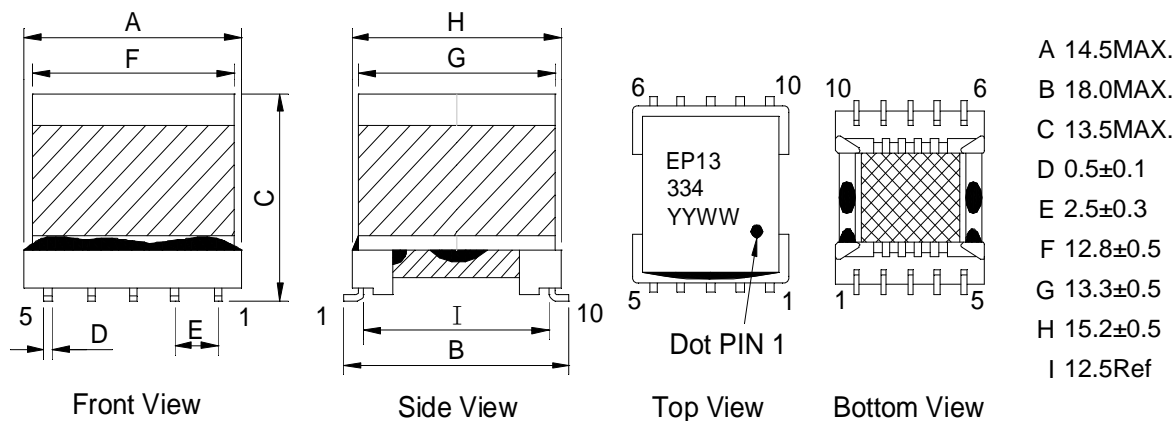
### Revision Record

Version	Revision Date	Revision For Items	Reason For Revision
A	2017/11/23	New Revision	-

Semitel'S MODEL NO. :	EP13-334	CUSTOMER'S MODEL NO. :	
VERSION:	A	CUSTOMER'S PART NO. :	
DATE:	2017/11/23		

# Product Specification

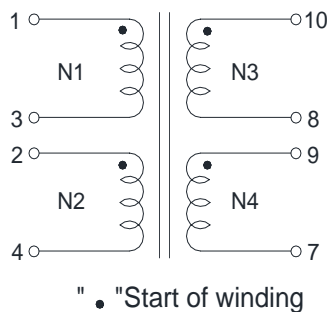
## 1. Physical Dimensions (Unit:mm)



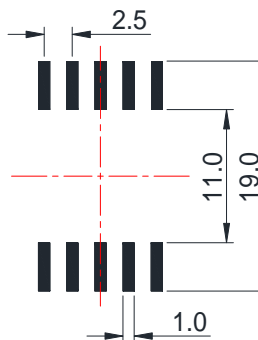
**Notes:**

- \*Marking type is laser printing
- \*YY: Year Code; WW: Week Code
- \*Dot indicates the location of pin#1.
- \*Size B not including soldering tags
- \*Coplanarity Requirement: Less than 0.15mm
- \*ITDSC Model:SF13AC

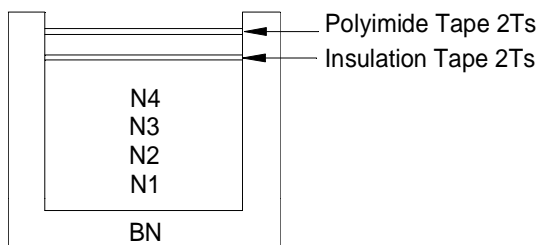
## 2.Connection



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



## 4.Structure of Products



## 5. No of Turns & Wire Spec

No	No of Pin	Truns	Section	Wire Spec
N1	1 - 3	32 TS	1 P	∅0.10mm QPN 180
N2	2 - 4	32 TS	1 P	∅0.10mm QPN 180
N3	10 - 8	16 TS	1 P	∅0.09mm TIW-F
N4	9 - 7	16 TS	1 P	∅0.09mm TIW-F

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<b>DATE:</b>	<b>2017/11/23</b>		

## Product Specification

### 6. Electrical Characteristics

\*Electrical specifications @ 25°C unless otherwise noted:

\*Operating temperature range: -40°C to +85°C .

\*Ambient temperature range: -40°C to +85°C .

Items	Winding	Specifications	Test Conditions
Inductance	L(1-4) Tie(2-3)	400uH±10%	at 10kHz,0.1Vrms
LK-Inductance	LK(1-4) Tie(2-3,10-9-8-7)	1.8uH MAX.	at 1MHz ,0.1Vrms
Interwinding Capacitance	(1-10) Tie(2-3,8-9)	110pF MAX.	at 100kHz,0.1Vrms
DCR	R(1-4) Tie(2-3)	3.85Ω MAX.	at 25°C
DCR	R(10-7) Tie(9-8)	2.5Ω MAX.	
THD		-90dB MAX.	at 25kHz 2Vrms
Turns Ratio	(1-4):(10-7) Tie(2-3,9-8)	2:1±2%	at 100kHz,0.1Vrms
Hi-Pot		6000 VDC	1mA,3Sec

### 7. Bill of Material

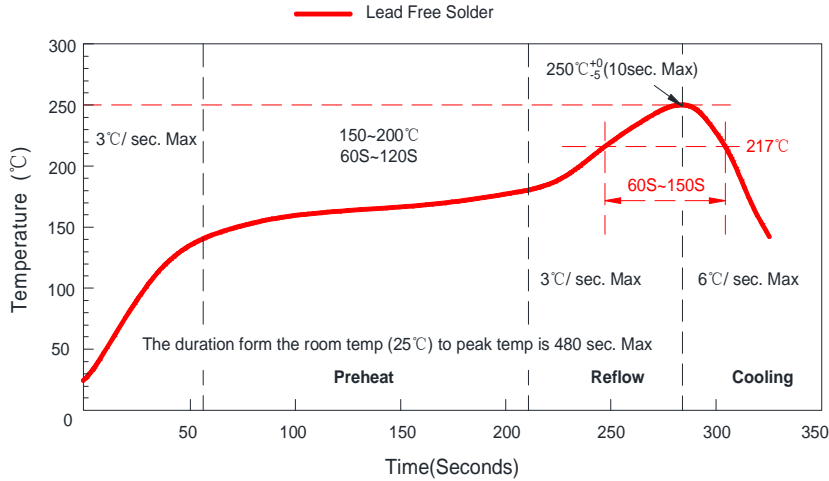
No	Items	Material Name	Manufacturer	UL File No	SGS File No
1	Core	FERRITE CORE A101	ACME or Equivalent	NIL	CE/2016/A4681B
2	Bobbin	PM-9630	SUMITOMO (SumiDurez) or Equivalent	E41429	SHAEC1705662106
3	Copper Wire	enamelled wire QPN 180	SUNTEK or Equivalent	E234867	SCL01J005340014E
4	Wire	Single layer and multilayer insulated wire TIW-FXX	FLUO-TECH or Equivalent	E488352	CANML1702805201
OR	Wire	Single layer and multilayer insulated wire FIW-F*	Yusheng or Equivalent	E332529	SHAEC1718738501
OR	Wire	Single layer and multilayer insulated wire DTIW-B	JIUDING or Equivalent	E357999	CANEC1706432701
5	Insulation tape	YELLOW COLOR 1350F-1(b)	3M or Equivalent	E17385	CE/2016/A2847
6	Polyimide Tape	Brown adhesive plastic 0.025mm V-0	RUNSEA (RAYITEK) or Equivalent	E339977	CANML1708589301
7	EPOXY	TH320	TIANHUAN or Equivalent	E257593	CANEC1619173404
8	EPOXY	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1626152101
9	Solder	Lead free solder	HONGTAIZHOU or Equivalent	NIL	CANEC1710839309

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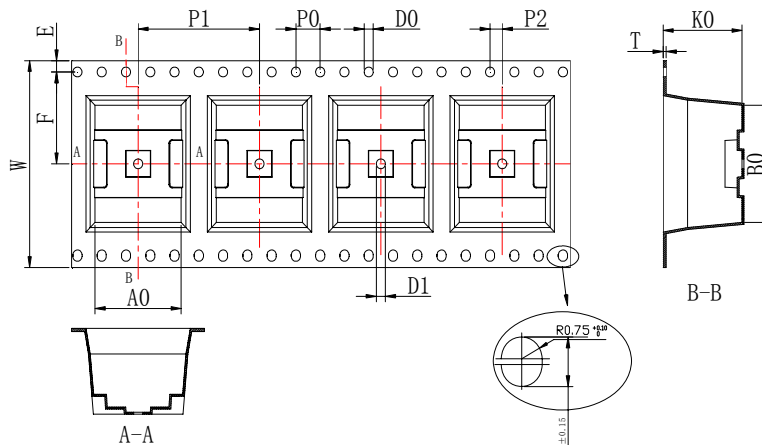
## Product Specification

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

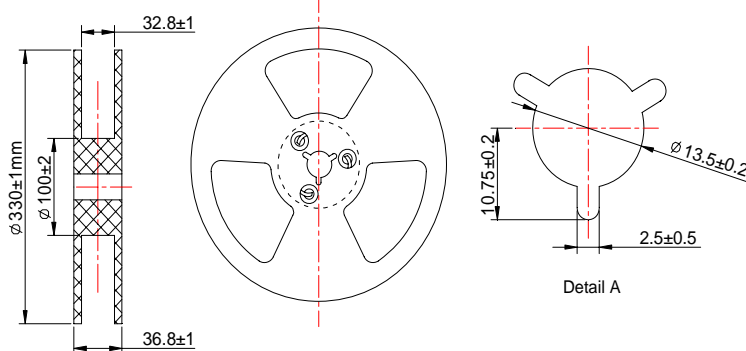
Test Solderability Temperature Profile



### 9.Tape and Reel Dimensions (Unit: mm)



ITEM	A0	B0	K0	P0	P1	P2
DIM	14.2±0.1	18.15±0.1	13±0.1	4.0±0.1	20.0±0.1	2.0±0.1
ITEM	W	T	E	F	D0	D1
DIM	32.0±0.3	0.5±0.05	1.75±0.1	14.2±0.1	∅ 1.5 <sup>+0.1</sup> <sub>0</sub>	∅ 2.0 <sup>+0.1</sup> <sub>0</sub>



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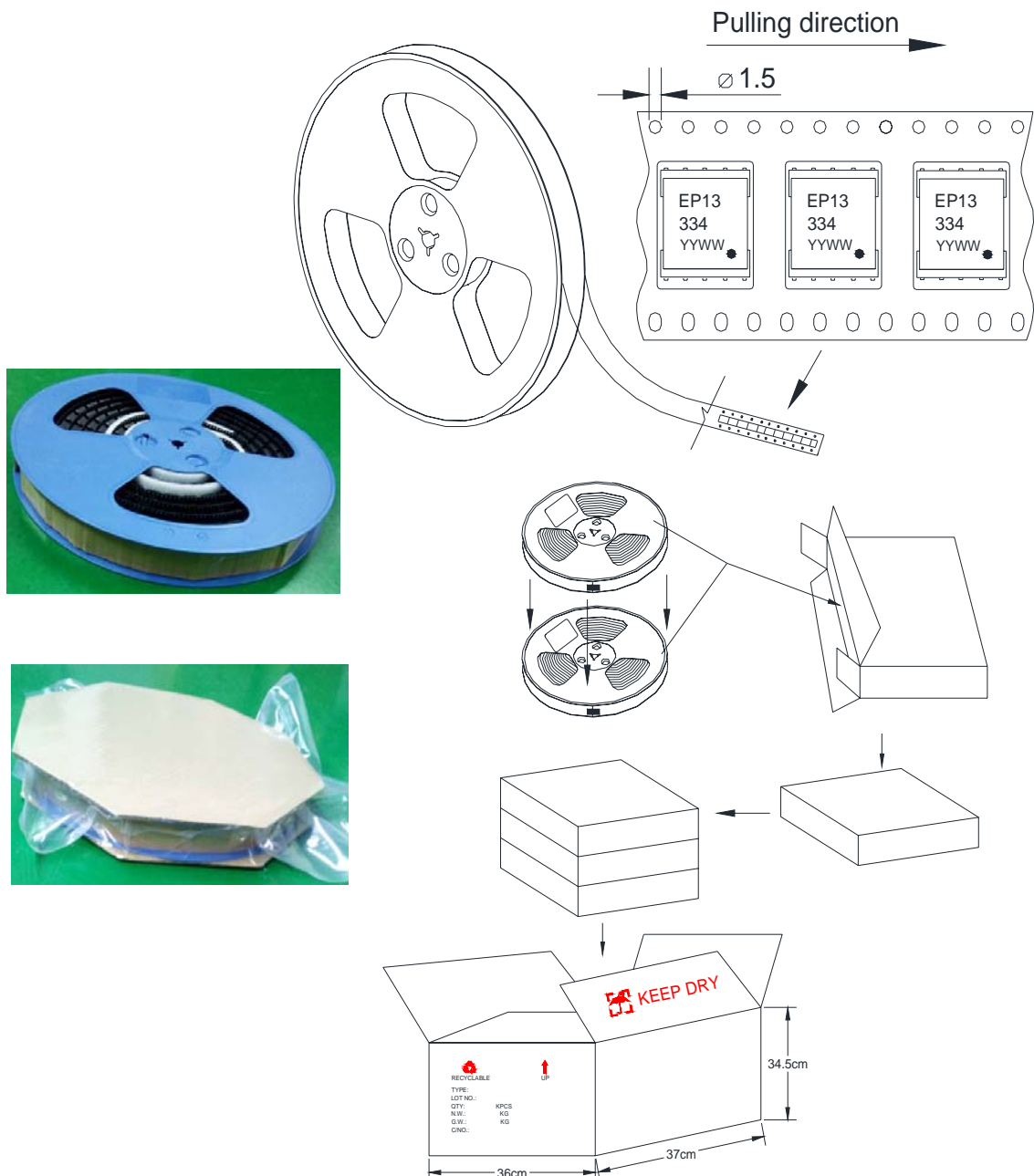
## Product Specification

### 10.Packing Request

\*Every roll of the carrier tape can contain 200pcs products.

\*Every small packing box contains two rolls of carrier tape. Total quantity: 400pcs.

\*Every carton box contains 3 small packing boxes. Total quantity: 1200pcs.



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## Test Report

Test Instruments									
	HP4284A	HP4284A	VR131		HP4284A	SYS2702A	3250	CS2670A	
NO	Inductance	LK-Inductance	DCR		Interwinding Capacitance	THD	Turns Ratio	Hi-Pot	
	at 10kHz,0.1Vrms	at 1MHz ,0.1Vrms	at 25°C	at 25°C	at 100kHz,0.1Vrms	at 25kHz 2Vrms	at 100kHz,0.1Vrms	1mA,3Sec	
	L(1-4) Tie(2-3)	LK(1-4) Tie(2-3,10-9-8-7)	R(1-4) Tie(2-3)	R(10-7) Tie(9-8)	(1-10) Tie(2-3,8-9)		(1-4):(10-7) Tie(2-3,9-8)	(1-10) Tie(2-3,8-9)	
	400uH±10%	1.8uH MAX.	3.85Ω MAX.	2.5Ω MAX.	110pF MAX.	-90dB MAX.	2:1±2%	6000 VDC	
1	404.50	1.48	2.96	1.88	43.60	-92.20	PASS	PASS	
2	403.00	1.50	2.92	1.88	42.40	-91.80	PASS	PASS	
3	401.20	1.49	2.90	1.89	45.50	-92.20	PASS	PASS	
4	398.70	1.50	2.92	1.87	45.60	-91.10	PASS	PASS	
5	400.00	1.48	2.98	1.92	43.90	-92.20	PASS	PASS	
MIN.	398.70	1.48	2.90	1.87	42.40	-92.20			
MAX.	404.50	1.50	2.98	1.92	45.60	-91.10			
AVG.	401.48	1.49	2.94	1.89	44.20	-91.90			
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	G	H	I
	14.5MAX.	18.0MAX.	13.5MAX.	0.5±0.1	2.5±0.3	12.8±0.5	13.3±0.5	15.2±0.5	12.5Ref
1	13.95	17.05	12.27	0.50	2.57	12.78	13.22	15.05	12.68
2	13.98	17.04	12.32	0.54	2.55	12.71	13.21	15.05	12.56
3	13.98	17.07	12.30	0.52	2.53	12.75	13.24	15.05	12.58
4	13.96	17.04	12.28	0.50	2.55	12.71	13.15	15.07	12.58
5	13.94	17.03	12.29	0.51	2.57	12.77	13.22	15.06	12.58
MIN.	13.94	17.03	12.27	0.50	2.53	12.71	13.15	15.05	12.56
MAX.	13.98	17.07	12.32	0.54	2.57	12.78	13.24	15.07	12.68
AVG.	13.96	17.05	12.29	0.51	2.55	12.74	13.21	15.06	12.60
Result	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed

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