

SPECIFICATION FOR APPROVAL

<p>CUSTOMER'S APPROVAL CHOP</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. : _____
EP13-667

VERSION: _____
A

DATE: _____
2020/9/7

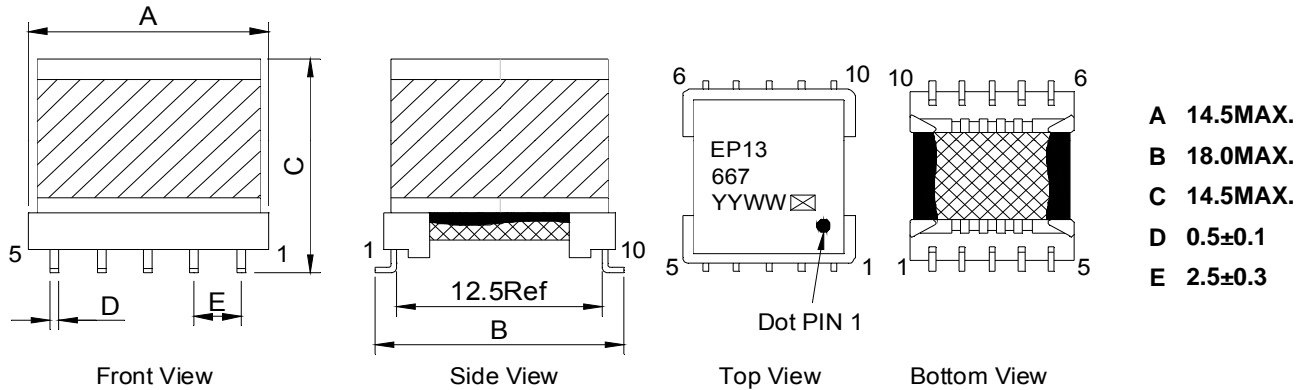
- Attachments:**
- Product Specification
 - Sample Qty. :
 - Test Data

Prepared By	Checked By	Approved By
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Product Specification

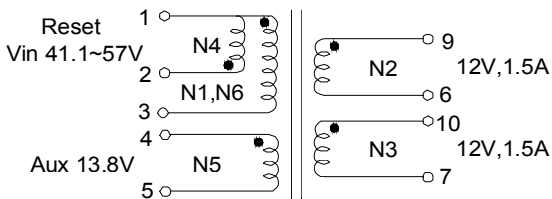
1. Physical Dimensions (Unit:mm)



Notes:

- (1). Marking type is laser printing
- (2). YY: Year Code; WW: Week Code
- (3). :When making samples, S is used to represent the product is a sample.
- (4). :Use different letters or numbers to represent the products are produced from different production lines .
- (5). Size B not including soldering tags
- (6). Coplanarity Requirement: Less than 0.10mm

2. Connection

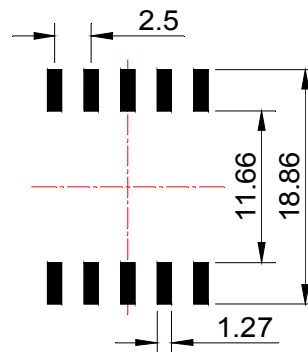


" • "Start of winding

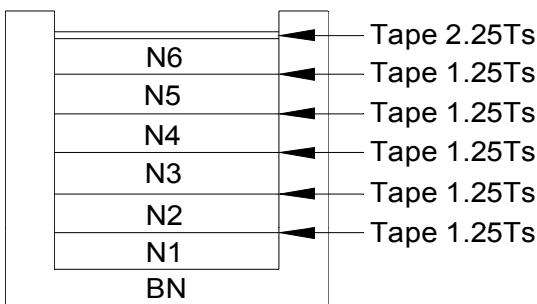
*Customer to tie terminals 6&7 and 9&10 on PC board.

*Application of the transformer allows for the leadwires between terminals 6&7 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	1--3	20 TS	ø0.17mm* 2P P180
N2	9--6	13 TS	ø0.17mm* 5P P180
N3	10--7	13 TS	ø0.17mm* 5P P180
N4	2--1	20 TS	ø0.15mm* 1P P180
N5	4--5	15 TS	ø0.15mm* 1P P180
N6	1--3	20 TS	ø0.17mm* 2P 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(1-3)	350uH MIN.	at 200kHz,0.1Vrms
LK-Inductance	LK(1-3) Tie 4,5,6,7,9,10	1.0uH MAX.	at 200kHz,0.1Vrms
DCR	R(1-3)	130mΩ MAX.	at 25°C
	R(2-1)	650mΩ MAX.	
	R(4-5)	500mΩ MAX.	
	R(9--6)	65mΩ MAX.	
	R(10-7)	65mΩ MAX.	
Turns Ratio	(1-3):(2-1):(4-5):(9-6):(10-7)	20:20:15:13:13;±3%	at 200kHz,0.1Vrms
Hi-Pot	Pri. To Sec.	1500VAC	3mA.1SEC.
	Pri. To Aux.	500VAC	3mA.1SEC.

7. Bill of Material

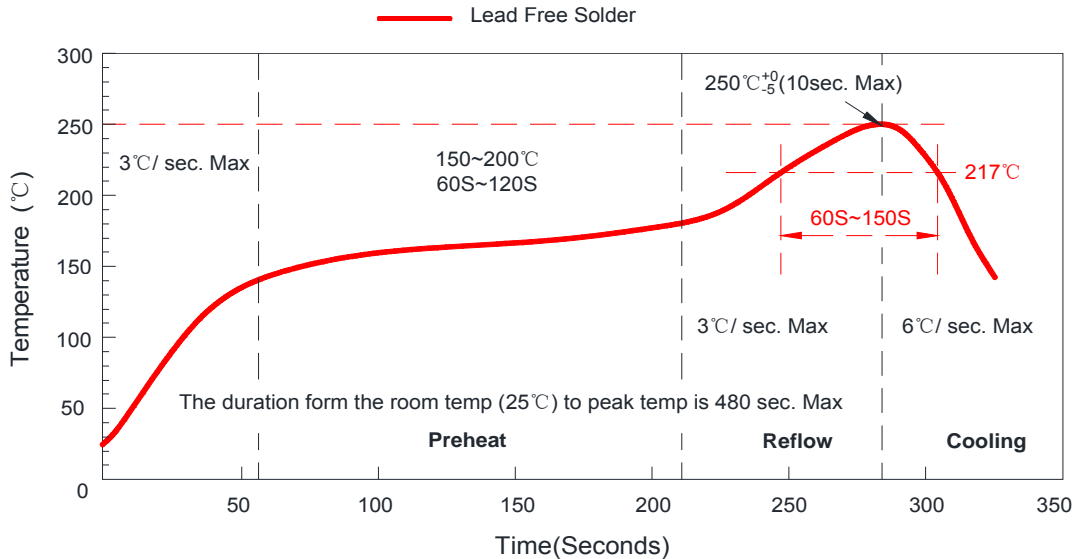
No	Item	Material Name	Manufacturer	UL File No	SGS File No
1	Core	MnZn ferrite core JCP-95	FCRI or Equivalent	NIL	CANEC1913430901
2	Bobbin	PM-9630	SUMITOMO or Equivalent	E41429	SHAEC2002442505
3	Copper Wire	Polyurethane bare wire (Cu) Polysol 180	ELEKTRISOLA or Equivalent	E258243	CE/2020/34972
OR	Copper 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	SZXEC1900617511
5	EPOXY	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1925290501
6	EPOXY	TH320	TIAN HUAN or Equivalent	E257593	SZXEC1902353001
7	Varnish	8562*	HANG CHEUNG or Equivalent	E200154	CANEC1900008105
8	Solder	Lead free solder	HONGTAIZHOU or Equivalent	NIL	CANEC1911577101

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8.Recommended Temperature Conditions of Air Reflow Soldering

Test Solderability Temperature Profile



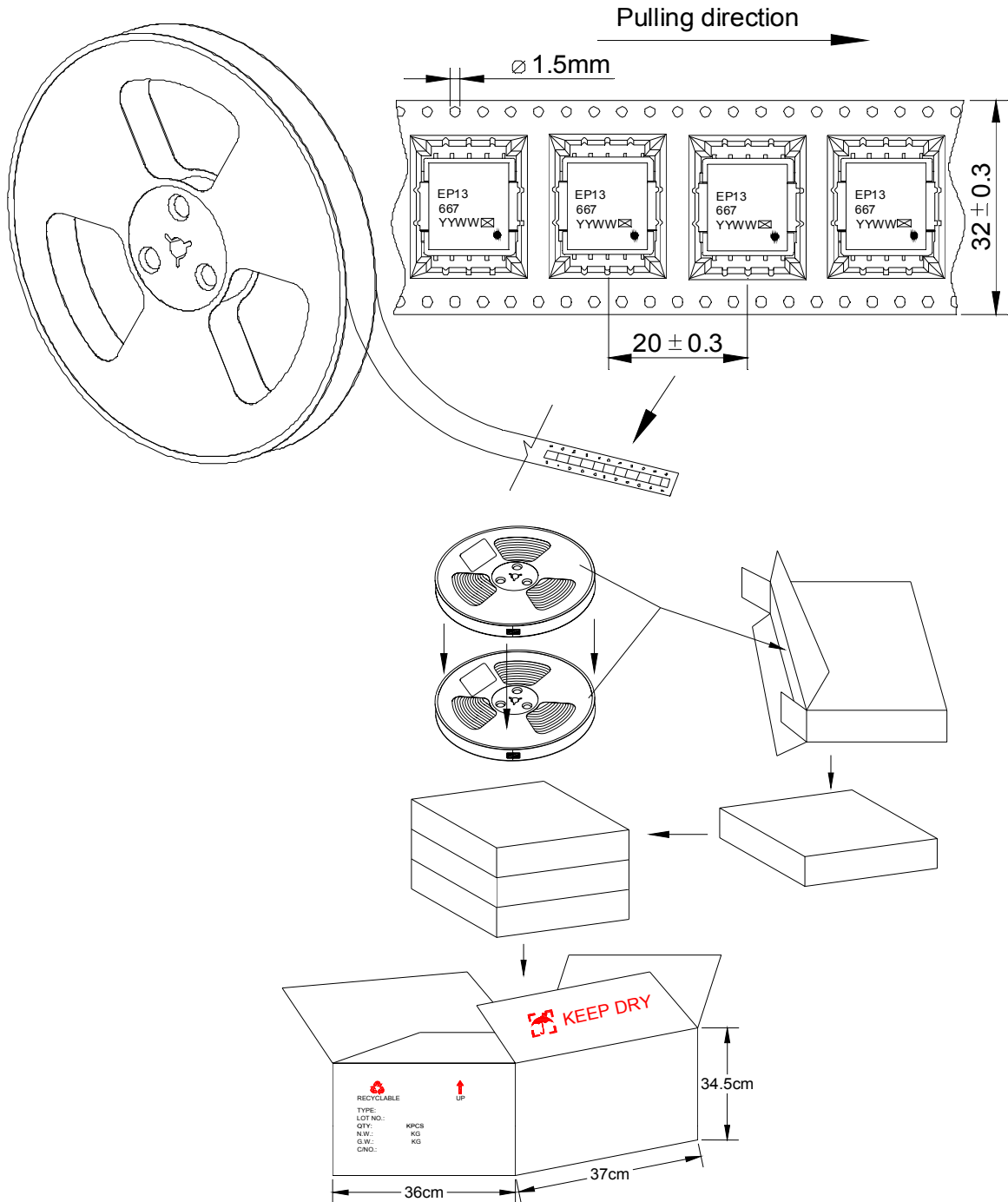
Profile Feature	
Average Ramp-Up Rate (T _{max} to T _p)	3°C/Second Max.
Preheat	
-Temperature Min. (T _{min})	150°C
-Temperature Max. (T _{max})	200°C
-Time (T _{min} to T _{max})	60-120 Seconds
Time maintained above:	
-Temperature (T _L)	217°C
-Time (T _L)	60-150 Seconds
Peak/Classification Temperature (T _p)	250°C
Time within 5°C of actual Peak Temperature (T _p)	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 200 pcs products.
- *Every small packing box contains two rolls of carrier tape. Total quantity: 400 pcs.
- *Every carton box contains 3 small packing boxes. Total quantity: 1200 pcs.



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Test Report

Test Instruments										
HP4284A		VR131					HP4284A	CS2670A		
Inductance	LK-Inductance	DCR					Turns Ratio	Hi-Pot		
at 200kHz,0.1Vrms	LK(1-3) Tie 4,5,6,7,9,10	at 25°C					at 200kHz,0.1Vrms	3mA.1SEC.		
L(1-3)	LK(1-3) Tie 4,5,6,7,9,10	R(1-3)	R(2-1)	R(4-5)	R(9-6)	R(10-7)	(1-3):(2-1):(4-5):(9-6):(10-7)	Pri. To Sec.	Pri. To Aux.	
350uH MIN.	1.0uH MAX.	130mΩ MAX.	650mΩ MAX.	500mΩ MAX.	65mΩ MAX.	65mΩ MAX.	20:20:15:13:13; ±3%	1500VAC	500VAC	
1	823.00	0.32	94.60	521.20	417.60	43.50	48.60	Passed	Passed	Passed
2	876.00	0.27	91.80	528.40	415.80	43.40	48.50	Passed	Passed	Passed
3	853.00	0.25	93.70	541.20	421.30	43.30	48.10	Passed	Passed	Passed
4	798.00	0.28	92.20	518.90	413.20	43.20	48.20	Passed	Passed	Passed
5	865.00	0.30	91.30	519.60	415.30	46.80	48.30	Passed	Passed	Passed
MIN.	798.00	0.25	91.30	518.90	413.20	43.20	48.10			
MAX.	876.00	0.32	94.60	541.20	421.30	46.80	48.60			
AVG.	843.00	0.28	92.72	525.86	416.64	44.04	48.34			
Result	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed
Overall Dimensions Test						Measurement Tools: Caliper (Unit:mm)				
NO	A	B	C	D	E					
	14.5MAX.	18.0MAX.	14.5MAX.	0.5±0.1	2.5±0.3					
1	13.40	17.30	13.20	0.50	2.50					
2	13.40	17.20	13.10	0.50	2.50					
3	13.40	17.20	13.30	0.50	2.50					
4	13.40	17.30	13.20	0.50	2.50					
5	13.40	17.30	13.20	0.50	2.50					
MIN.	13.40	17.20	13.10	0.50	2.50					
MAX.	13.40	17.30	13.30	0.50	2.50					
AVG.	13.40	17.26	13.20	0.50	2.50					
Result	Passed	Passed	Passed	Passed	Passed					
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