

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. : _____ **EP13-591** _____

VERSION: _____ **B** _____

DATE: _____ **2020/3/9** _____

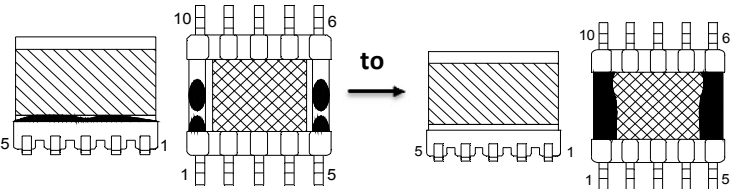
Attachments:

- Product Specification
- Sample Qty. :
- Test Data

Prepared By	Checked By	Approved By
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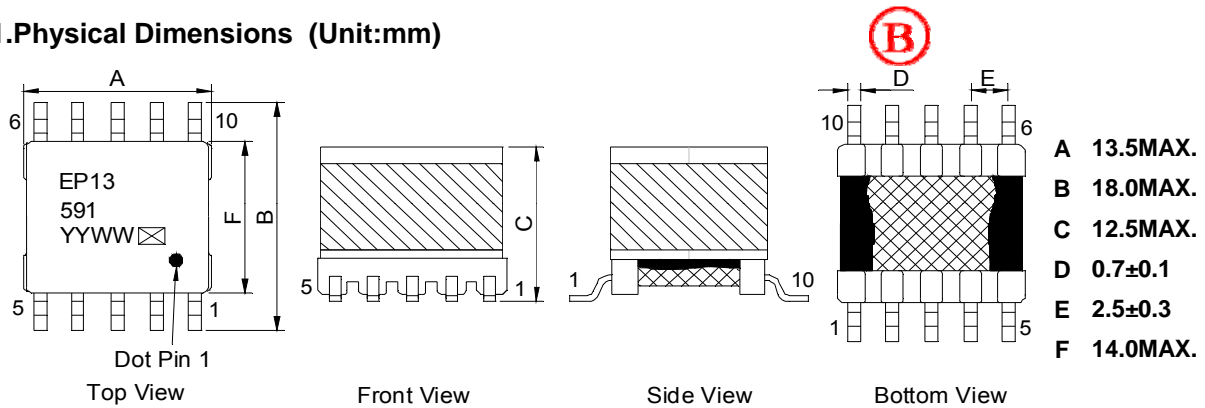
Revision Record

Version	Revision Date	Revision For Items	Revision For Items
A	2019/10/7	New Revision	-
B	2020/3/9	<p>The position of epoxy change from</p> 	Customer Request

Semitel'S MODEL NO. :	EP13-591	CUSTOMER'S MODEL NO. :	
VERSION:	B	CUSTOMER'S PART NO. :	
DATE:	2020/3/9		

Product Specification

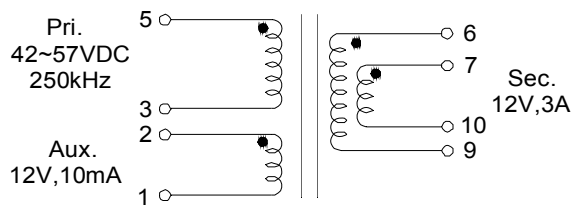
1. Physical Dimensions (Unit:mm)



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 0.15mm

2.Connection

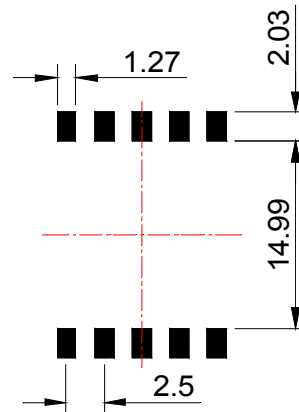


" • "Start of winding

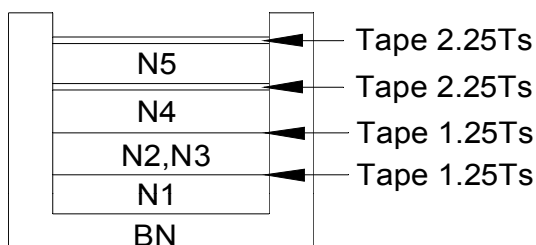
*Customer to tie terminals 6&7 and 9&10 on PC board.

*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	5 - 3	18 Ts	ø0.18mm*2P P180
N2	7 - 10	8 Ts	ø0.30mm*2P P180
N3	6 - 9	8 Ts	ø0.30mm*2P P180
N4	2 - 1	9 Ts	ø0.15mm*1P P180
N5	5 - 3	18 Ts	ø0.17mm*2P P180

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6. Electrical Characteristics

*Electrical specifications @25°C unless otherwise noted.

*Operating temperature range: -40°C to +125°C including temp rise.

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

Items	Winding	Specifications	Test Conditions
Inductance	L(5-3)	26uH±10%	at 10kHz,0.1VAC
Inductance	L(5-3)	20.8uH MIN.	at 10kHz,0.1VAC @4A
LK-Inductance	LK(5-3) Tie other	0.8uH MAX.	at 100kHz,0.1VAC
DCR	R(2-1)	605mΩ MAX.	at 20°C
	R(5-3)	101mΩ MAX.	
	R(6-10) Tie (6+7,9+10)	16mΩ MAX.	
Turns Ratio	(5-3):(2-1)	2:1;±2%	at 100kHz,0.1VAC
	(5-3):(6-10) Tie (6+7,9+10)	2.25:1;±2%	
Hi-Pot	Pri. To Sec.	1875VAC	5mA.1SEC
	Win.To Core	600VAC	5mA.1SEC

7. Bill of Material

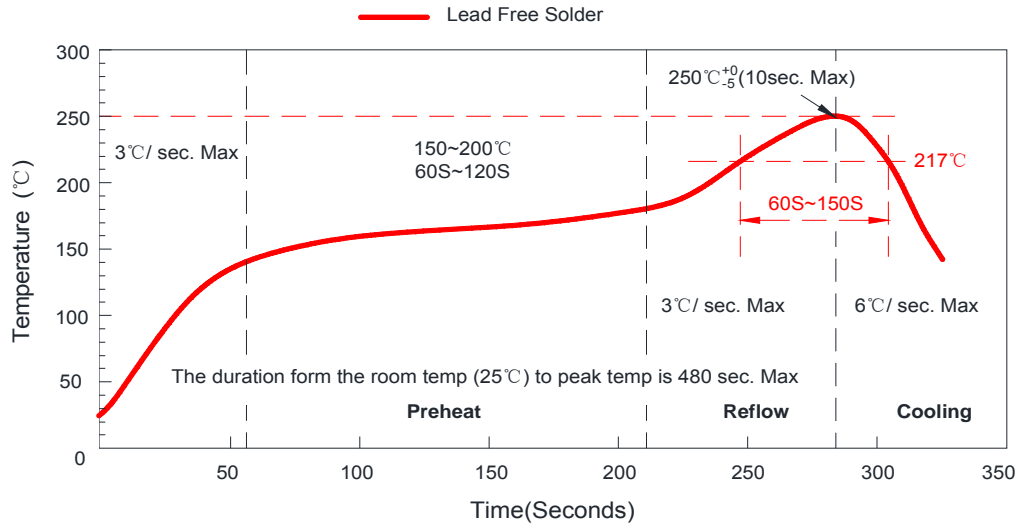
No	Items	Material name	Manufacturer	UL File No	SGS File No
1	Core	FERRITE CORE JCP-95	FCRI or Equivalent	NIL	CANEC1813462601
2	Bobbin	PM-9630	SUMITOMO (SumiDurez) or Equivalent	E41429	SHAEC1904476901
3	Copper Wire	Polyurethane wire P180	ELEKTRISOLA or Equivalent	E258243	CE/2019/37143
4	Polyimide Tape	Brown adhesive plastic HN NC 0.025mm V-0	RUNSEA (RAYITEK)or Equivalent	E339977	SZXEC1900617511
5	EPOXY	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1826217301
6	EPOXY	TH320	TIAN HUAN or Equivalent	E257593	CANEC1821553805
7	Varnish	8562*	HANG CHEUNG or Equivalent	E200154	CANEC1900008105
8	Solder	Lead free solder	HONGTAIZHOU or Equivalent	NIL	CANEC1911577101

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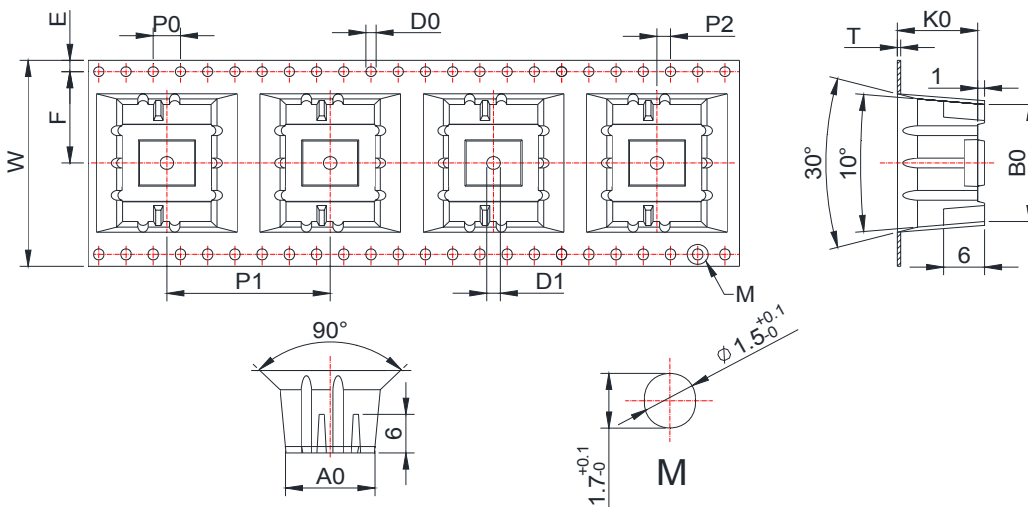
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8.Recommended Temperature Conditions of Air Reflow Soldering

Test Solderability Temperature Profile



9.Tape Dimensions (Unit:mm)



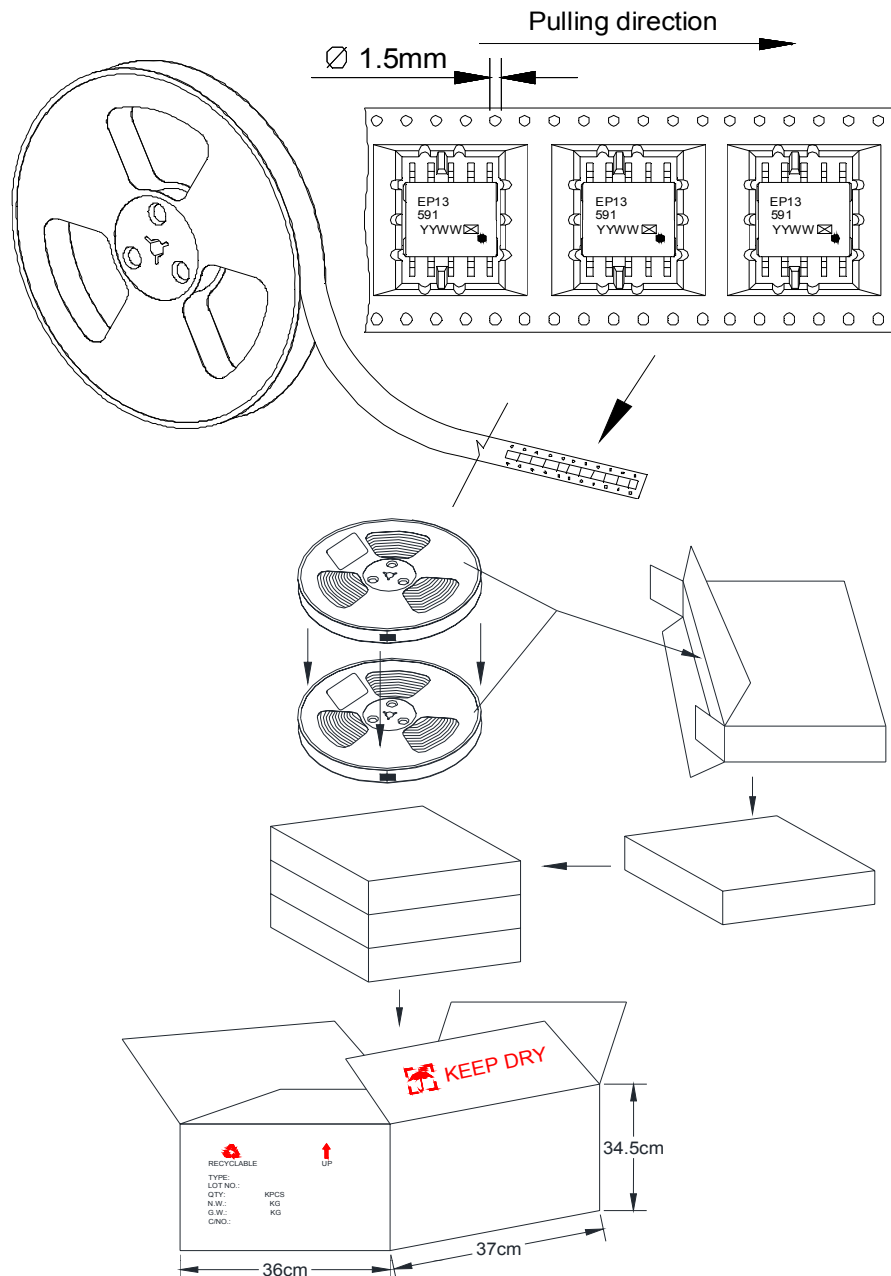
symbol	A0	B0	K0	P0	P1	P2
spec	13.0±0.3	18.2±0.3	11.8±0.3	4.0±0.1	24.0±0.15	2±0.1
symbol	W	T	E	F	D0	D1
spec	32.0±0.3	0.5±0.05	1.75±0.1	14.2±0.1	$\phi 1.5^{+0.1}_0$	$\phi 2.0\pm 0.1$

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10.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 10kHz,0.1VAC	at 10kHz,0.1VAC @4A	at 100kHz,0.1VAC	at 20°C			at 100kHz,0.1VAC		5mA.1SEC	5mA.1SEC
	L(5-3)	L(5-3)	LK(5-3) Tie other	R(2-1)	R(5-3)	R(6-10) Tie (6+7,9+10)	(5-3):(2-1)	(5-3):(6-10) Tie (6+7,9+10)	Pri. To Sec.	Win.To Core
	26uH±10%	20.8uH MIN.	0.8uH MAX.	605mΩ MAX.	101mΩ MAX.	16mΩ MAX.	2:1;±2%	2.25:1;±2%	1875VAC	600VAC
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	Passed

Overall Dimensions Test

Measurement tools: Caliper (Unit:mm)

NO	A	B	C	D	E	F				
		13.5MAX.	18.0MAX.	12.5MAX.	0.7±0.1	2.5±0.3	14.0MAX.			
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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