

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: _____
EFD25

Semitel'S MODEL NO. : _____
EFD25-280

VERSION: _____
A

DATE: _____
2018/4/25

Attachments:

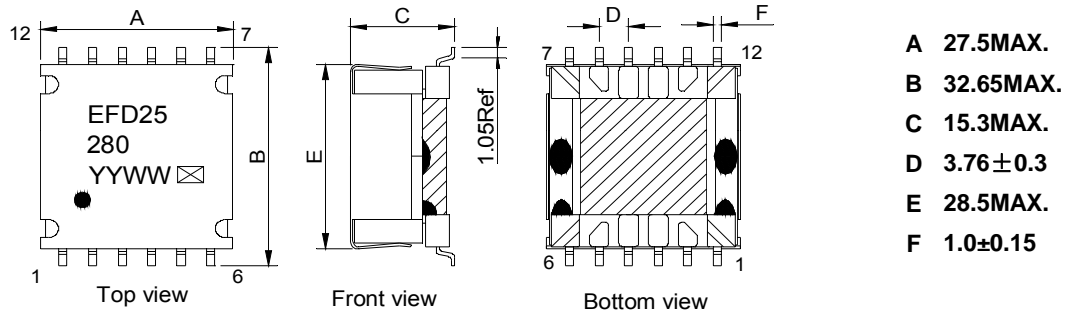
- Product specification
- Sample Qty.:
- Test data

Prepared By	Checked By	Approved By
Hebe Deng 2018/4/25	Liang Wang 2018/4/25	Alan Wong 2018/4/25

Semitel International Ltd.,	TEL: 886-2-86922121 FAX: 886-2-26483379
www.semitelint.com	12F, No.183, Sec.1, Datong Rd., Xizhi Dist., New Taipei City 22145, Taiwan

Product Specification

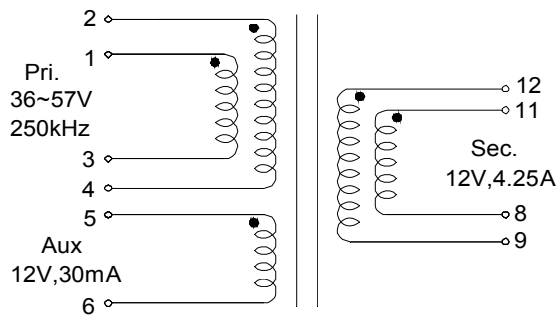
1. Physical Dimensions (Unit:mm)



Notes:

- (1). Marking type is laser printing, Dot indicates the location of pin#1.
- (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

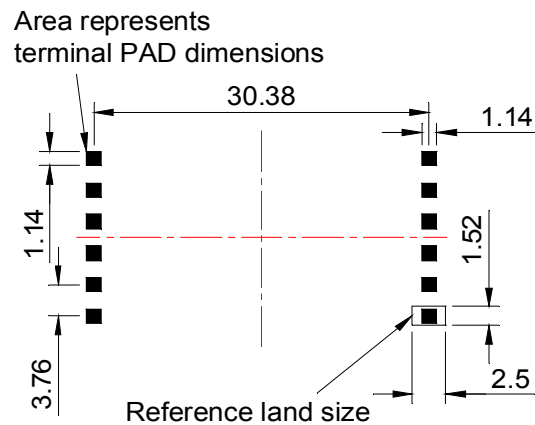
2. Connection



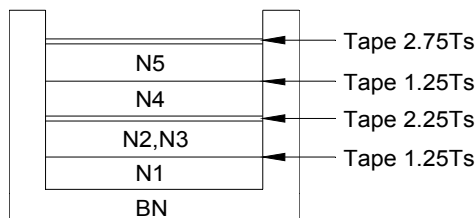
" • "Start of winding

- *Customer to tie terminals 1+2,3+4, 8+9 and 11+12 on PC board.
- *Application of the transformer allows for the leadwires between terminals 1&2,3&4, 8&9 and 11&12 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	16 Ts	ø0.28mm*5P P180
N2	12 -- 9	6 Ts	ø0.30mm*4P P180
N3	11 -- 8	6 Ts	ø0.30mm*4P P180
N4	2 -- 4	16 Ts	ø0.28mm*5P P180
N5	5 -- 6	7 Ts	ø0.25mm*2P P180

Semitel'S MODEL NO. :	EFD25-280	CUSTOMER'S MODEL NO.:	
VERSION :	A	CUSTOMER'S PART NO. :	
DATE :	2018/4/25		

Product Specification

6. Electrical Characteristics

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

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

Items	Winding	Specifications	Test Conditions
Inductance	L(1-4) Tie(1+2, 3+4)	30.0uH±10%	at 10kHz,0.1Vrms
LK-Inductance	LK(1-4) Tie(1+2,3+4,5+6,8+9,11+12)	3.0uH MAX.	at 100kHz,0.1Vrms
DCR	R(1-4) Tie(1+2, 3+4)	26.4mΩ MAX	at 20°C
	R(5-6)	82.5mΩ MAX	
	R(8-12) Tie(8+9, 11+12)	10mΩ MAX	
Turns Ratio	(1-4):(5-6), Tie(1+2, 3+4)	2.29:1, ±1%	at 100kHz,0.1Vrms
	(1-4):(12-8) Tie(1+2, 3+4, 8+9, 11+12)	2.67:1, ±1%	
Hi-Pot	D(1-12) Tie(3+4+5, 8+9)	625VAC	3 mA.1Sec
	D(1-6) Tie(3+4)	625VAC	3 mA.1Sec

7.Bill of Material

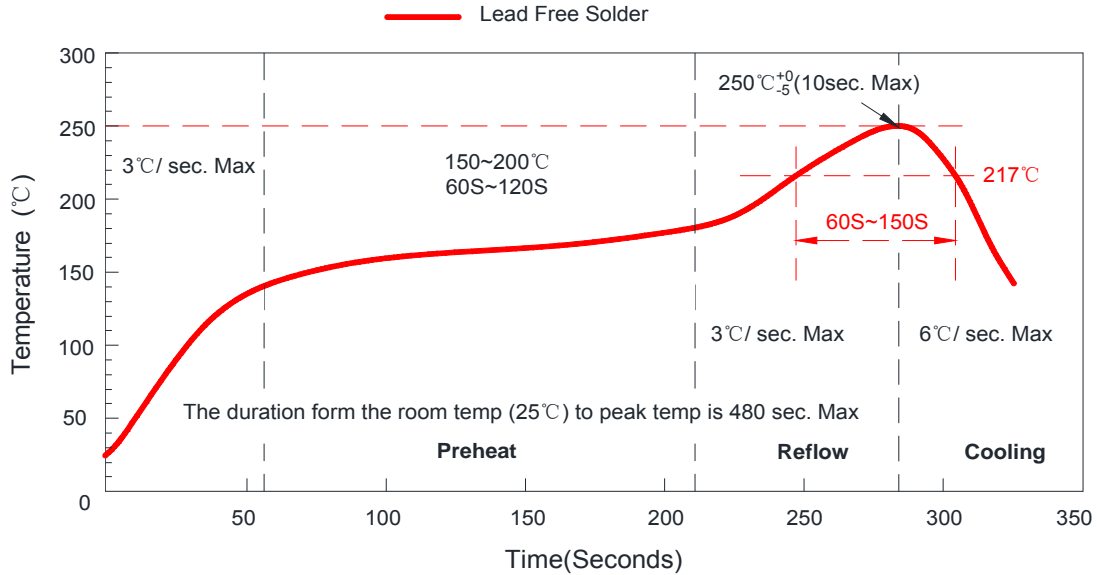
No	Items	Material Name	Manufacturer	UL File No	SGS File No
1	Core	FERRITE CORE JCP-95	FCRI or Equivalent	NIL	CANEC1712442501
2	Bobbin	PM-9630	SUMITOMO (SumiDurez) or Equivalent	E41429	SHAEC1705662106
3	CLIP	SUS301	Bangteng or Equivalent	NIL	CANEC1714691001
4	Copper Wire	Polyurethane bare wire (Cu) Polysol 180	ELEKTRISOLA or Equivalent	E258243	CE/2017/40923
OR	Copper Wire	Polyurethane wire UEWH/U	PACIFIC or Equivalent	E201757	A217005571810101E
5	Insulation tape	Yellow color 1350F-1(b)	3M or Equivalent	E17385	CE/2017/A2661
6	EPOXY	TH320	TIAN HUAN or Equivalent	E257593	CANEC1719881801
7	EPOXY	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1726002103
8	Varnish	8562*	HANG CHEUNG or Equivalent	E200154	CANEC1700180105
9	Solder	Lead free solder	HONGTAIZHOU or Equivalent	NIL	CANEC1710839309

Semitel'S MODEL NO. :	EFD25-280	CUSToMER'S MODEL NO.:	
VERSION :	A	CUSToMER'S PART NO. :	
DATE :	2018/4/25		

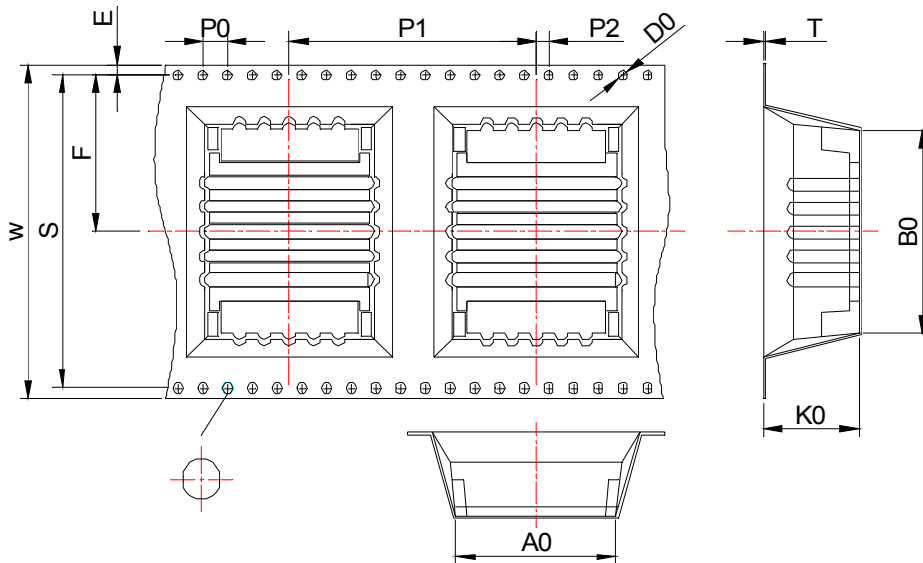
Product Specification

8.Recommended Temperature Conditions of Air Reflow Soldering

Test Solderability Temperature Profile



9.Tape and Reel Dimensions (Unit: mm)



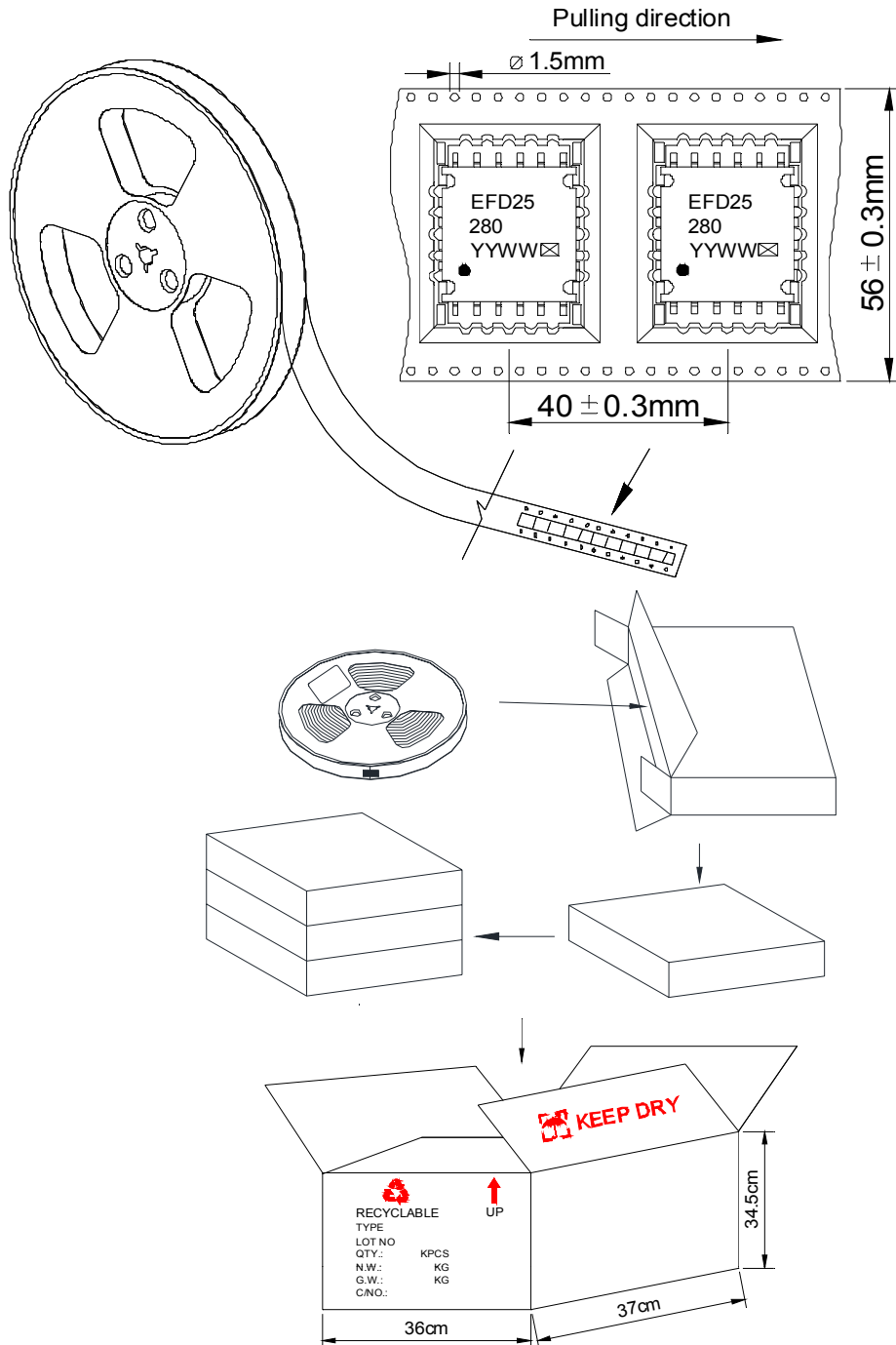
symbol	A0	B0	K0	P0	P1	P2
spec	25.9 ± 0.3	34.0 ± 0.3	15.6 ± 0.3	4.0 ± 0.1	40.0 ± 0.1	2.0 ± 0.1
symbol	W	T	E	F	D0	S
spec	56.0 ± 0.3	0.5 ± 0.05	1.75 ± 0.1	26.2 ± 0.1	∅ 1.5 ± 0.1	∅ 52.4 ± 0.1

Semitel'S MODEL NO. :	EFD25-280	CUSTOMER'S MODEL NO.:	
VERSION :	A	CUSTOMER'S PART NO. :	
DATE :	2018/4/25		

Product Specification

10.Packing Request

- (1), Every roll of the carrier tape can contain 95pcs products.
- (2), Every small packing box contains one rolls of carrier tape. Total quantity: 95pcs.
- (3), Every cartoon box contains 3 small packing boxes. Total quantity: 285pcs.



Semitel'S MODEL NO. :	EFD25-280	CUSTOMER'S MODEL NO.:	
VERSION :	A	CUSTOMER'S PART NO. :	
DATE :	2018/4/25		

Test Report

Test Instruments									
	HP4284A	HP4284A	DCR METER 131			HP4284A	CS2670A		
NO	Inductance	LK-Inductance	DCR			Turns Ratio		Hi-Pot	
	at 10kHz,0.1Vrms	at 100kHz,0.1Vrms	at 20°C			at 100kHz,0.1Vrms		3 mA.1Sec	
	L(1-4) Tie(1+2, 3+4)	LK(1-4) Tie(1+2,3+4,5+6, 8+9,11+12)	R(1-4) Tie(1+2, 3+4)	R(5-6)	R(8-12) Tie(8+9, 11+12)	(1-4):(5-6), Tie(1+2, 3+4)	(1-4):(12-8) Tie(1+2, 3+4, 8+9, 11+12)	D(1-12) Tie(3+4+ 5, 8+9)	D(1-6) Tie(3+4)
	30.0uH±10%	3.0uH MAX.	26.4mΩ MAX	82.5mΩ MAX	10mΩ MAX	2.29:1, ±1%	1500VAC	625VAC	625VAC
1	30.50	1.23	20.98	68.90	3.89	PASS	PASS	PASS	PASS
2	30.50	1.52	21.12	68.50	3.92	PASS	PASS	PASS	PASS
3	29.80	1.35	21.77	68.80	3.91	PASS	PASS	PASS	PASS
4	31.30	1.21	22.42	68.70	3.82	PASS	PASS	PASS	PASS
5	29.90	1.43	21.70	68.80	3.84	PASS	PASS	PASS	PASS
MIN.	29.80	1.21	20.98	68.50	3.82				
MAX.	31.30	1.52	22.42	68.90	3.92				
AVG.	30.40	1.35	21.60	68.74	3.88				
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			
	27.5MAX.	32.65MAX.	15.3MAX.	3.76±0.3	28.5MAX.	1.0±0.15			
1	26.69	31.89	13.72	3.73	26.35	1.02			
2	26.35	31.85	13.84	3.73	26.36	1.02			
3	26.62	31.92	13.74	3.77	26.38	0.99			
4	26.57	31.97	13.95	3.77	26.34	1.01			
5	26.54	31.84	13.75	3.76	26.35	1.01			
MIN.	26.35	31.84	13.72	3.73	26.34	0.99			
MAX.	26.69	31.97	13.95	3.77	26.38	1.02			
AVG.	26.55	31.89	13.80	3.75	26.36	1.01			
Result	Passed	Passed	Passed	Passed	Passed	Passed			

Semitel'S MODEL NO. :	EFD25-280	CUSTOMER'S MODEL NO.:	
VERSION :	A	CUSTOMER'S PART NO. :	
DATE :	2018/4/25		