

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: _____ **EFD20** _____

Semitel'S MODEL NO. : _____ **EFD20-126** _____

VERSION: _____ **A** _____

DATE: _____ **2017-7-5** _____

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

Prepared By	Checked By	Approved By
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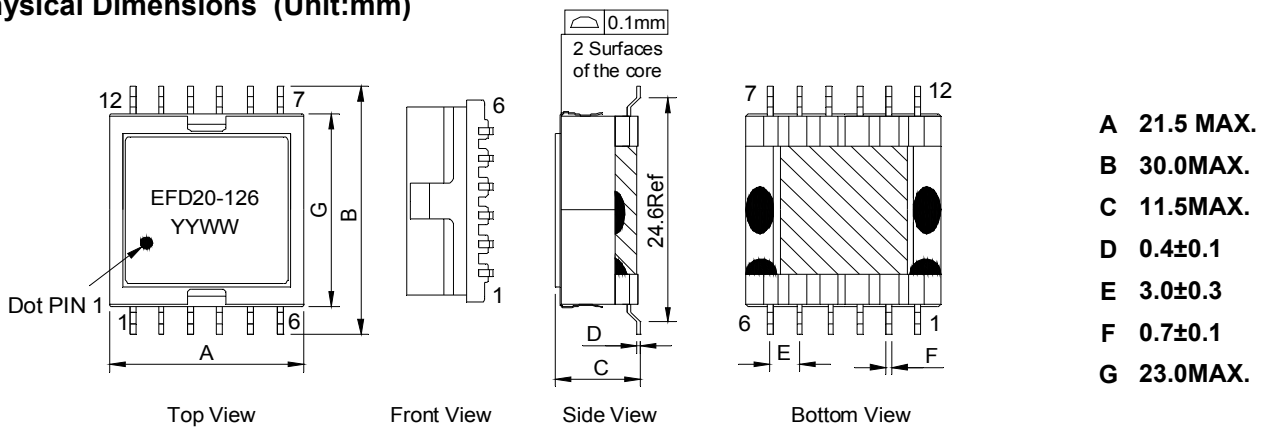
Revision Record

Version	Revision Date	Revision For Items	Reason For Revision
A	2017-7-5	New Revision	-

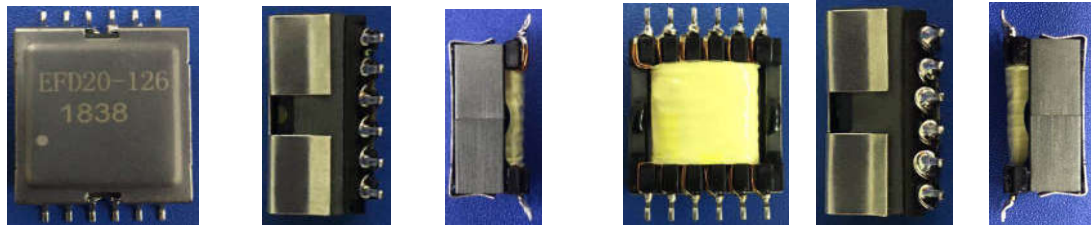
Semitel'S MODEL NO. :	EFD20-126	CUSTOMER'S MODEL NO. :	
VERSION:	A	CUSTOMER'S PART NO. :	
DATE:	2017-7-5		

Product Specification

1. Physical Dimensions (Unit:mm)



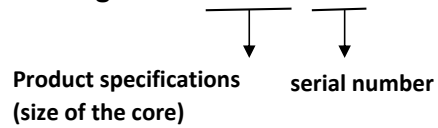
- A 21.5 MAX.
- B 30.0MAX.
- C 11.5MAX.
- D 0.4±0.1
- E 3.0±0.3
- F 0.7±0.1
- G 23.0MAX.



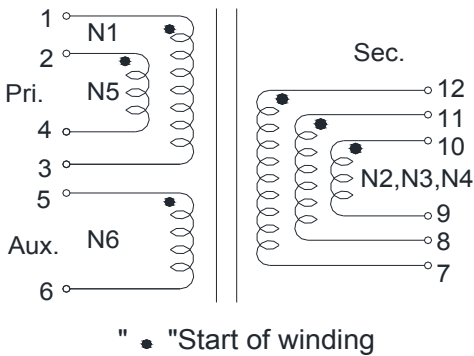
Notes:

- *Marking type is laser printing
- *YY: Year Code; WW: Week Code
- *Size B not including soldering tags
- *Coplanarity Requirement: Less than 0.10mm

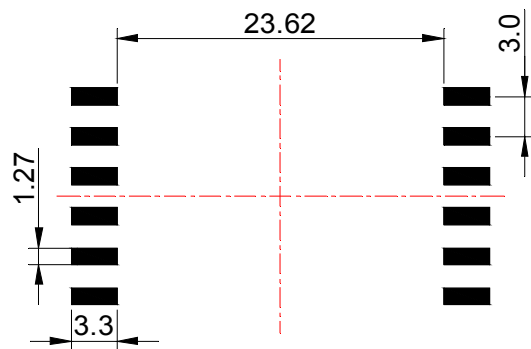
***Marking Rule: EFD20-126**



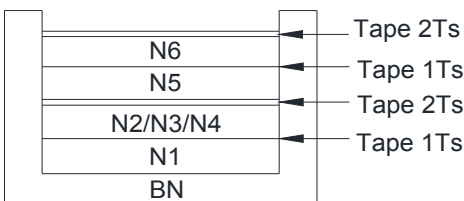
2. Connection



3. Recommended Pad Layout (Unit:mm)



4. Structure of Products



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5. Electrical Characteristics

*Operating temperature range:-40°C~+125°C

*Storage temperature:-40°C~+125°C

Items	Winding	Specifications	Test Conditions
Inductance	L(1,2-3,4)	42uH ±10%	at 250kHz,0.7Vrms
	L(1,2-3,4)	37.8uH Min	at 250kHz,0.7Vrms @2.6A
LK-Inductance	Lk(1,2-3,4) Tie other	1.6uH Max	at 250kHz,0.7Vrms
DCR	R(1,2-3,4)	69mΩ MAX	at 25°C
	R(10.11.12-7.8.9)	5mΩ MAX	
	R(5-6)	225mΩ MAX	
Turns Ratio	Pri:Sec	1:0.14±3%	at 100kHz,0.1Vrms
	Pri:Aux	1:0.33±3%	
Hi-Pot	(1,2,3,4) to (5,6)	500VAC	1 mA.3 SEC.
	Win. to Core	500VAC	1 mA.3 SEC.
	Pri. to Sec.	1500VAC	1 mA.3 SEC.

6. Bill of Material

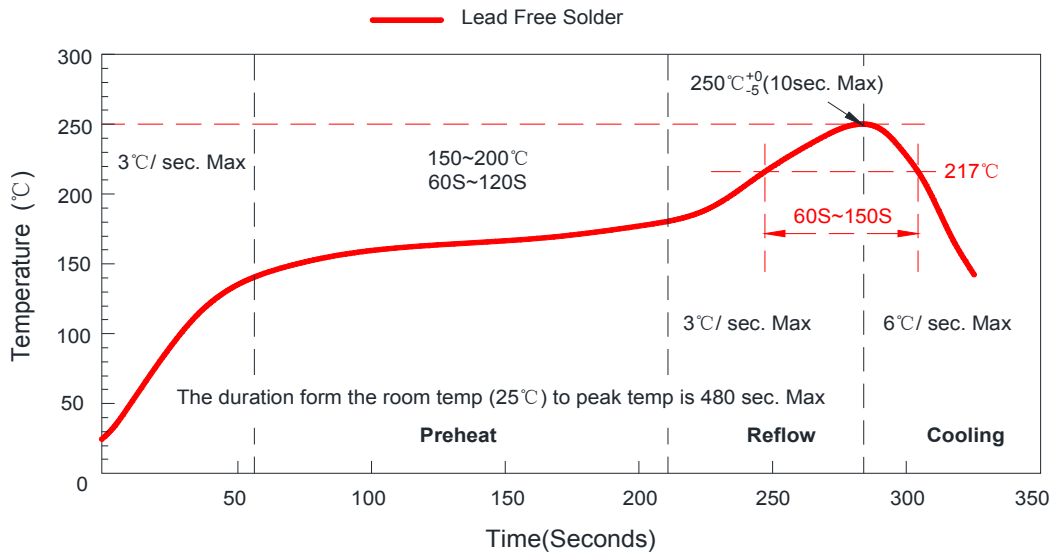
No	Items	Material Name	Manufacturer	UL File No	SGS File No
1	Core	FERRITE CORE JCP-95	FCRI or Equivalent	NIL	CANEC1813462601
2	Bobbin	PM-9630	SUMITOMO (SumiDurez) or Equivalent	E41429	SHAEC1802754204
3	Clip	SUS301	TONG FENG or Equivalent	NIL	SZXEC1801105401
4	Copper Wire	Polyurethane wire UEWH/U	PACIFIC or Equivalent	E201757	A217005571810101E
5	Insulation tape	Yellow color 1350F-1(b)	3M or Equivalent	E17385	CE/2017/A2661
6	Polyimide Tape	Brown adhesive plastic	RUNSEA (RAYITEK)or Equivalent	E339977	CANML1808714601
7	Epoxy	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1726002103
8	Epoxy	TH320	TIANHUAN or Equivalent	E257593	CANEC1719881801
9	Varnish	ZS-NJ-D938 XX	ZHAOSHUN or Equivalent	E329120	CANEC1804050604
10	Solder	Lead free solder	HONGTAIZHOU or Equivalent	NIL	CANEC1812220901

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7.Recommended Temperature Conditions of Air Reflow Soldering

Test Solderability Temperature Profile



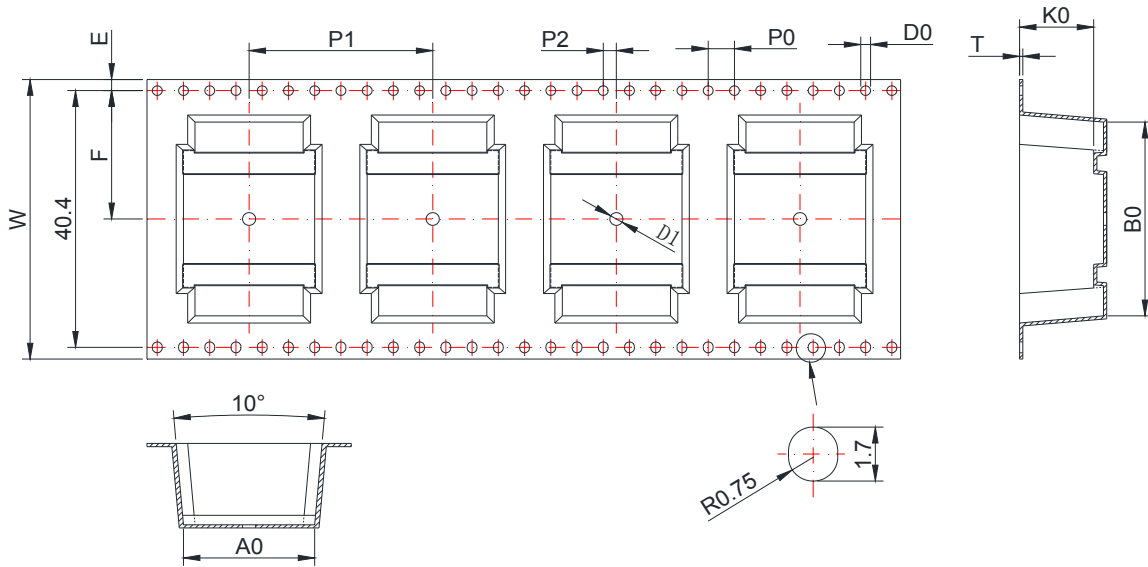
Profile Feature	
Average Ramp-Up Rate (T _{max} to T _p)	3°C/Second Max.
Preheat	
-Temperature Min. (T _{min})	150°C
-Temperature Max. (T _{max})	200°C
-Time (T _{min} to T _{max})	60-120 Seconds
Time maintained above:	
-Temperature (T _L)	217°C
-Time (T _L)	60-150 Seconds
Peak/Classification Temperature (T _p)	250°C
Time within 5°C of actual PeakTemperature (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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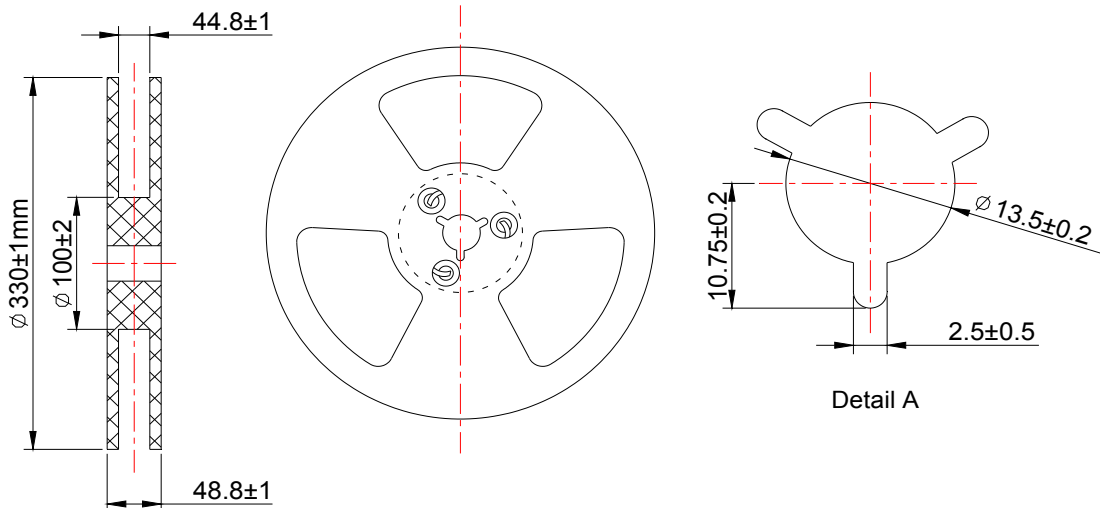
8. Tape and Reel Dimensions (Unit:mm)

*Packing information is according with EIA-841 standard, When W=32mm and other wider tapes that should have elongated sprocket holds on the other side.



Unit:mm

ITEM	A0	B0	K0	P0	P1	P2
DIM	20.0±0.3	30.5±0.3	11.3±0.3	4.0±0.1	28.0±0.3	2.0±0.15
ITEM	W	T	E	F	D0	D1
DIM	44.0±0.3	0.5±0.05	1.75±0.1	20.2±0.15	∅ 1.5±0.1	∅ 2.0±0.1



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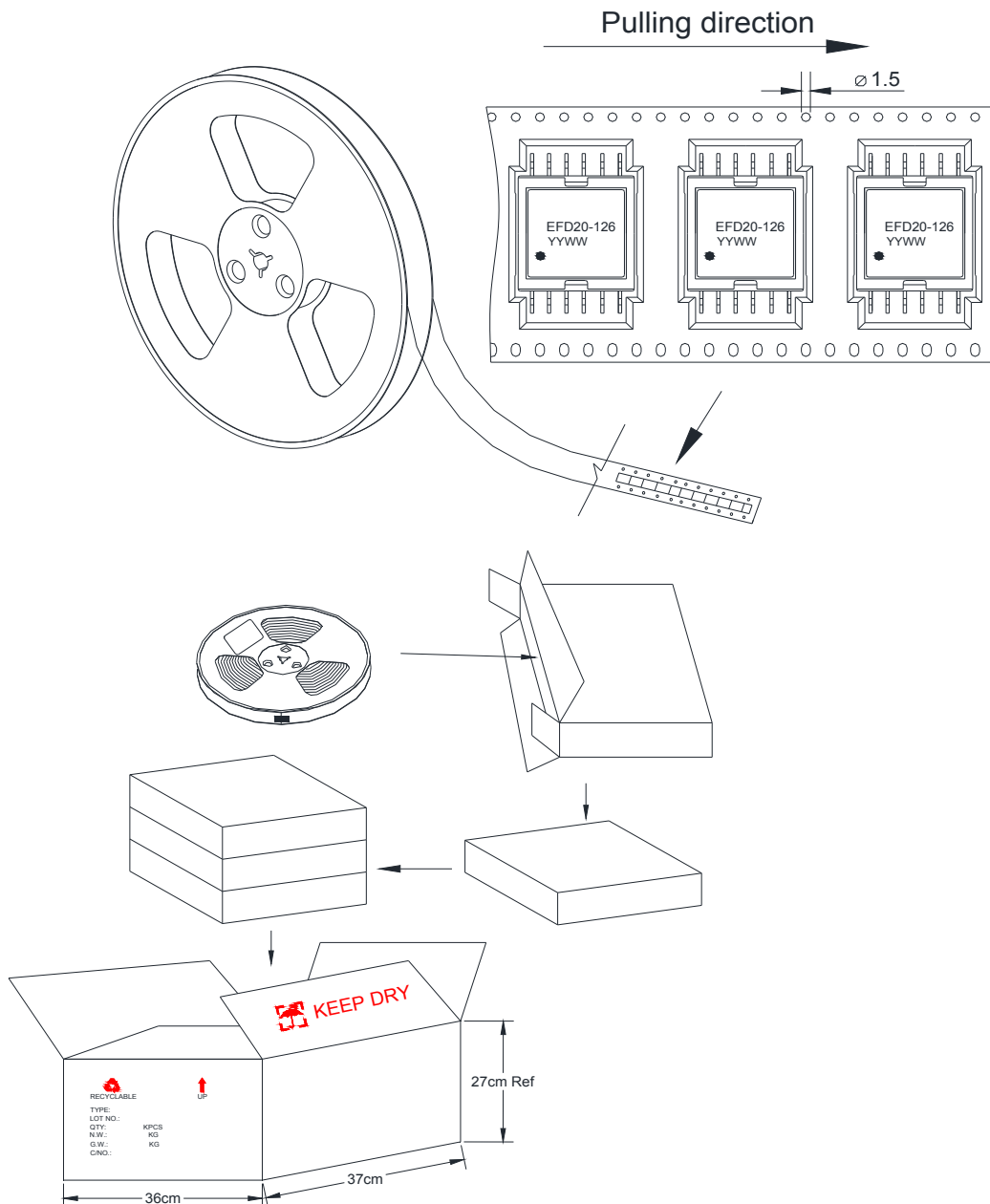
Product Specification

9.Packing Request

*Every roll of the carrier tape can contain 125pcs products.

*Every small packing box contains one rolls of carrier tape. Total quantity: 125pcs.

*Every cartoon box contains 3 small packing boxes. Total quantity: 375pcs.



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Test Report

Test Instruments											
HP4284A		HP4284A	DCR METER 131			HP4284A		CS2670A			
NO	Inductance		LK-Inductance	DCR			Turns Ratio		Hi-Pot		
	at 250kHz,0.7Vrms	at 250kHz,0.7Vrms @2.6A	at 250kHz,0.7Vrms	at 25°C	at 25°C	at 25°C	at 100kHz,0.1Vrms		1 mA.3 SEC.		
	L(1,2-3,4)	L(1,2-3,4)	Lk(1,2-3,4) Tie other	R(1,2-3,4)	R(10.11.12-7.8.9)	R(5-6)	Pri:Sec	Pri:Aux	(1,2,3,4) to (5,6)	Win. to Core	Pri. to Sec.
	42uH ±10%	37.8uH Min	1.6uH Max	69mΩ MAX	5mΩ MAX	225mΩ MAX	1:0.14±3%	1:0.33±3%	500VAC	500VAC	1500VAC
1	42.70	41.2	0.63	54.30	4.6	172.3	PASS	PASS	PASS	PASS	PASS
2	43.20	42.8	0.77	55.90	4.5	171.4	PASS	PASS	PASS	PASS	PASS
3	45.60	41.9	0.69	53.90	4.8	171.4	PASS	PASS	PASS	PASS	PASS
4	43.20	41.9	0.70	53.70	4.7	172.4	PASS	PASS	PASS	PASS	PASS
5	43.20	42.4	0.60	52.70	4.4	171.6	PASS	PASS	PASS	PASS	PASS
MIN.	42.70	41.20	0.60	52.70	4.4	171.4					
MAX.	45.60	42.80	0.77	55.90	4.8	172.4					
AVG.	43.58	42.04	0.68	54.10	4.6	171.8					
Result	Passed	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	G				
	21.5 MAX.	30.0MAX.	11.5MAX.	0.4±0.1	3.0±0.3	0.7±0.1	23.0MAX.				
1	20.19	29.16	10.87	0.43	2.97	0.68	22.17				
2	20.17	29.13	10.83	0.44	2.97	0.67	22.14				
3	20.21	29.07	10.78	0.45	3.07	0.66	22.15				
4	20.56	29.06	10.79	0.43	3.06	0.66	22.17				
5	20.46	29.08	10.9	0.44	2.96	0.68	22.16				
MIN.	20.17	29.06	10.78	0.43	2.96	0.66	22.14				
MAX.	20.56	29.16	10.90	0.45	3.07	0.68	22.17				
AVG.	20.32	29.10	10.83	0.44	3.01	0.67	22.16				
Result	Passed	Passed	Passed	Passed	Passed	Passed	Passed				
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