

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: _____

EFD20

Semitel'S MODEL NO. : _____

EFD20-299

VERSION: _____

A

DATE: _____

2018-8-1

Attachments:

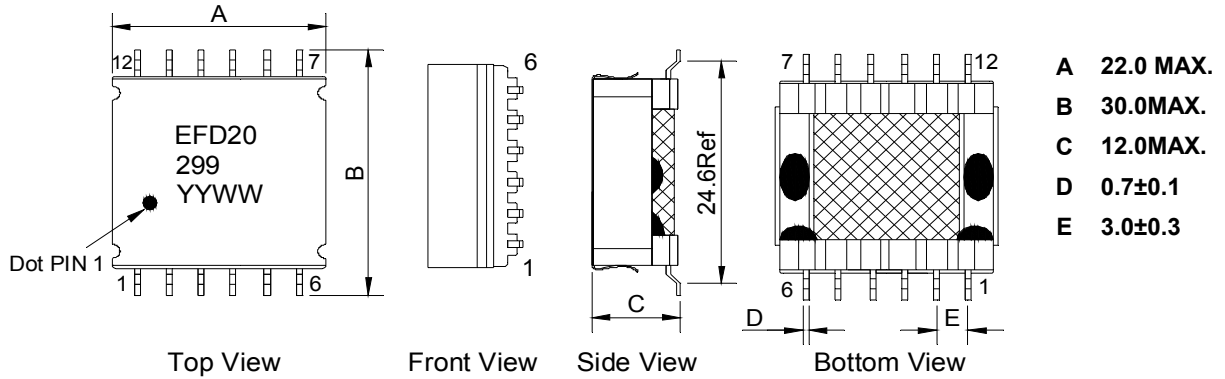
- Product specification
- Sample Qty.:
- Test data

Prepared By	Checked By	Approved By
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Product Specification

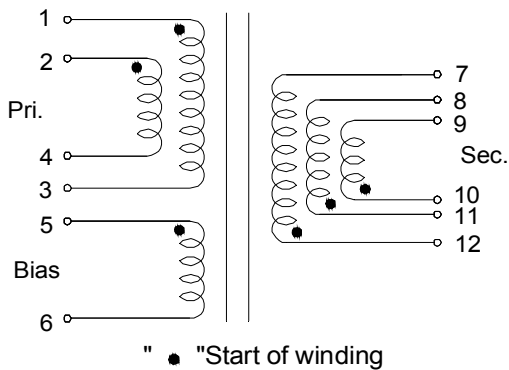
1. Physical Dimensions (Unit:mm)



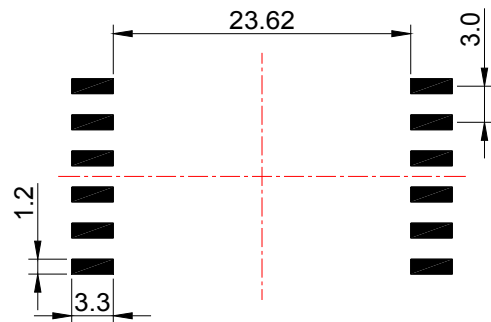
Notes:

- (1). Marking type is laser printing
- (2). YY: Year Code; WW: Week Code
- (3). Size B not including soldering tags
- (4). Coplanarity Requirement: Less than 0.15mm

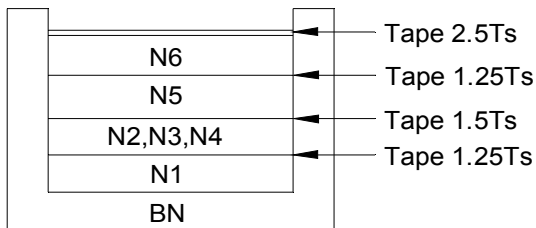
2. Connection



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	17 TS	5 P	ø0.25mm
N2	10 - 7	3 TS	3 P	ø0.32mm
N3	11 - 8	3 TS	3 P	ø0.32mm
N4	12 - 9	3 TS	3 P	ø0.32mm
N5	2 - 4	17 TS	5 P	ø0.25mm
N6	5 - 6	7 TS	1 P	ø0.18mm

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Product Specification

5. 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(1,2-3,4)	70uH±10%	at 250kHz,0.5Vrms
LK-Inductance	LK(1,2-3,4) Tie(1-2,3-4,5-6-7-8-10-11-12)	0.62uH MAX.	at 250kHz,0.5Vrms
DCR	R(1,2-3,4)	75mΩ MAX.	at 25°C
	R(5-6)	250mΩ MAX.	
	R(12,11,10-9,8,7)	5mΩ MAX .	
Interwinding Capacitance	C(1-12)	120pF MAX .	at 250kHz,0.5Vrms
Turns Ratio	(1,2-3,4):(5-6) Tie(1-2,3-4)	2.44:1, ±3%	at 100kHz,0.1Vrms
	(1,2-3,4):(12,11,10-9,8,7) Tie(1-2,3-4,12-11-10,9-8-7)	5.5:1, ±3%	
Hi-Pot	Pri. To Sec.	1500VAC	1 mA.2Sec

6.Bill of Material

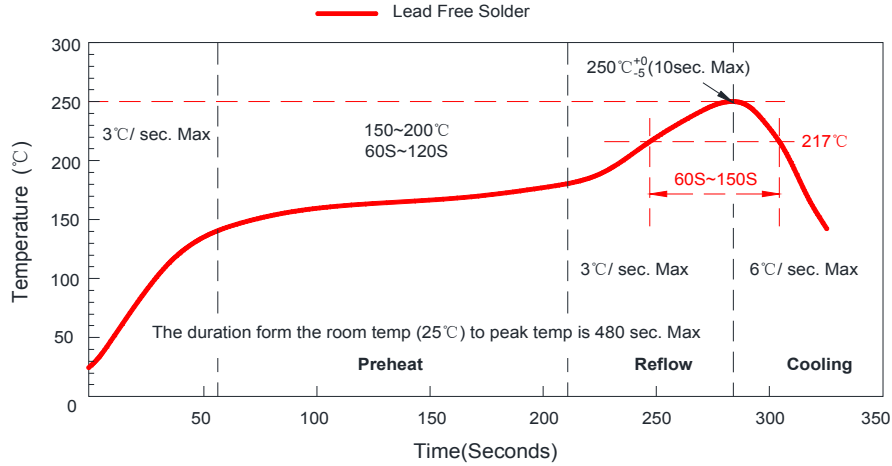
No	Items	Material Name	Manufacturer	UL File No	SGS File No
1	Core	FERRITE CORE JCP-95	FCRI or Equivalent	NIL	CANEC1813462601
OR	Core	SOFT FERRITE CORE TD95	TONGDA or Equivalent	NIL	SHAEC1800613302
OR	Core	FERRITE CORE P47	ACME or Equivalent	NIL	CE/2017/72268
2	Bobbin	PM9630	SEMTOUR (SumiDurez) or Equivalent	E41429	SHAEC1802754204
3	CLIP	SUS301	TONG FENG or Equivalent	NIL	CANEC1714691001
4	Copper Wire	Polyurethane bare wire (Cu) Polysol 180	ELEKTRISOLA or Equivalent	E258243	CE/2018/40393
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	Insulation tape	Polyester Mylar Tape (Yellow) CT* (c) (g)	YAHUA or Equivalent	E165111	CANEC1721525801
7	EPOXY	TH320	TIANHUAN or Equivalent	E257593	CANEC1719881801
8	EPOXY	EB-360	CHANGFENG or Equivalent	NIL	SHAEC1726002103
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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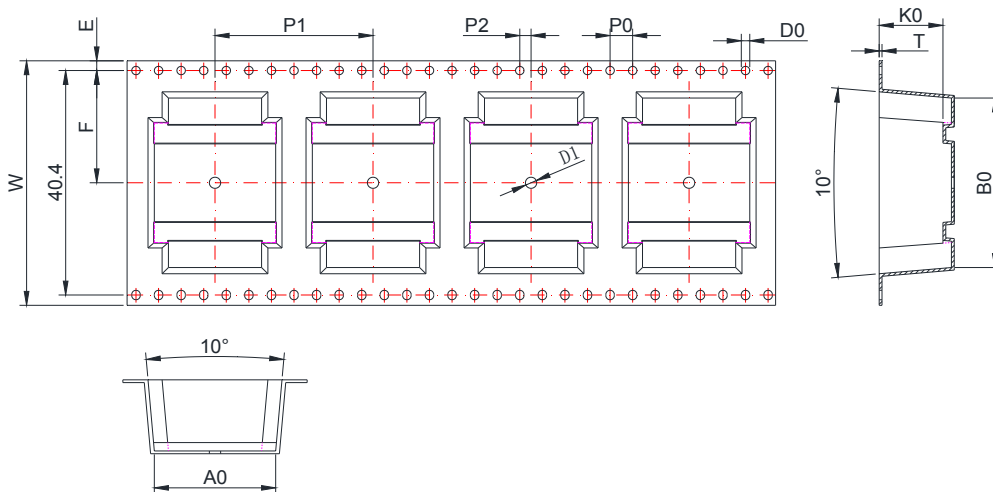
Product Specification

7.Recommended Temperature Conditions of Air Reflow Soldering

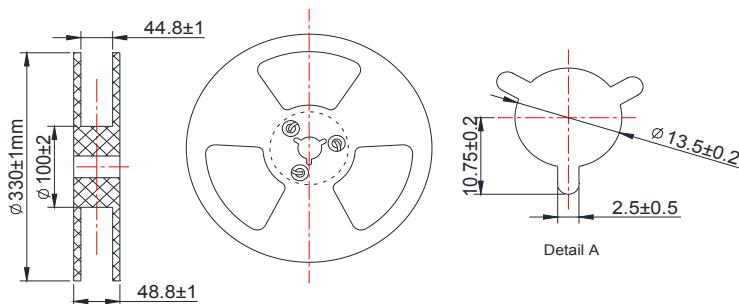
Test Solderability Temperature Profile



8.Tape and Reel Dimensions (Unit: mm)



ITEM	A0	B0	K0	P0	P1	P2
DIM	21.5±0.1	30.5±0.1	11.3±0.1	4.0±0.1	28.0±0.1	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	φ 1.5 ^{+0.1} ₀	φ 2.0 ^{+0.1} ₀

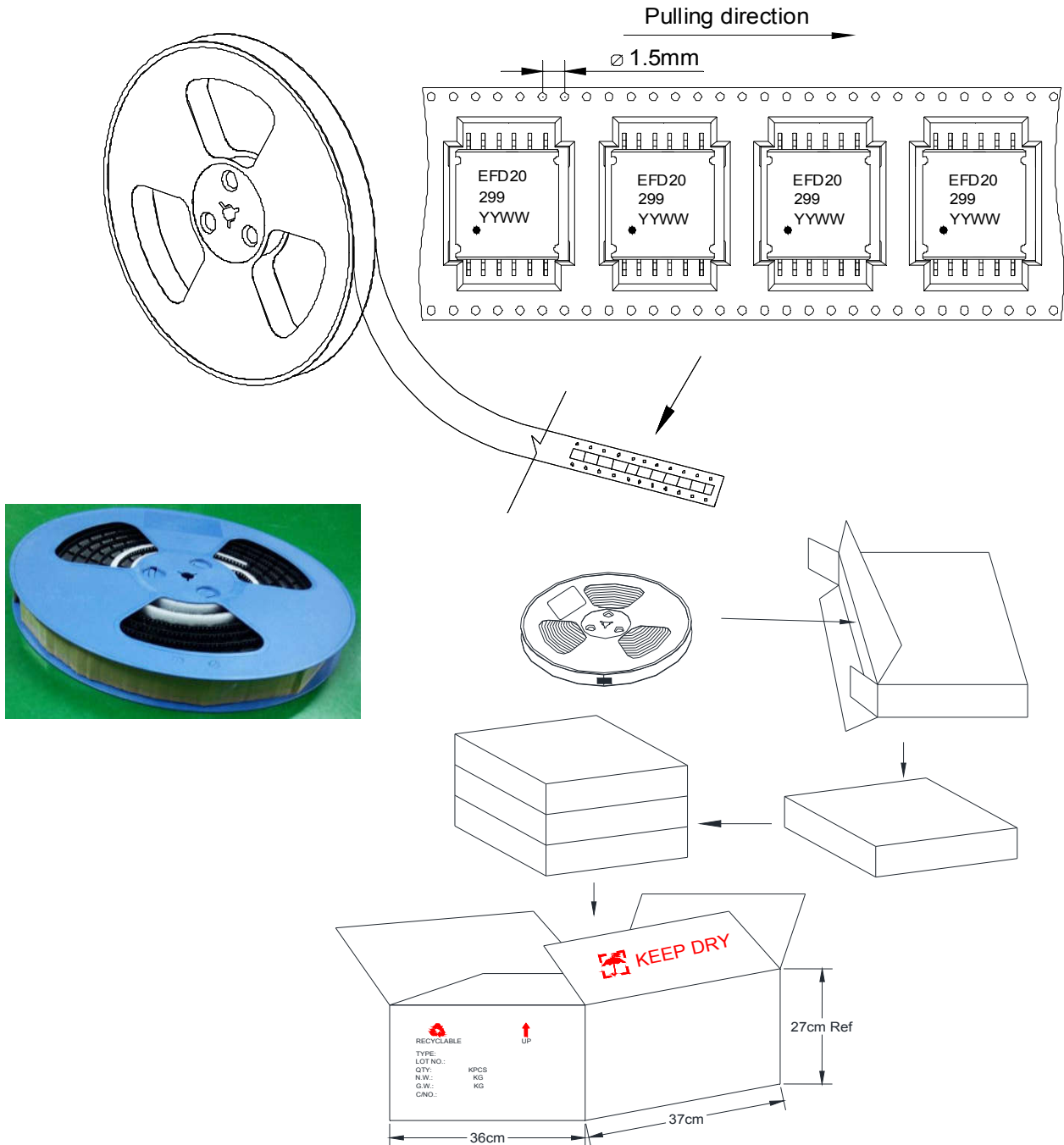


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9.Packing Request

- (1), Every roll of the carrier tape can contain 125pcs products.
- (2), Every small packing box contains one rolls of carrier tape. Total quantity: 125pcs.
- (3), Every carton 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,0.5Vrms	at 250kHz,0.5Vrms	at 25°C				at 100kHz,0.1Vrms		1 mA.2Sec
	L(1,2-3,4)	LK(1,2-3,4) Tie(1-2,3-4,5-6-7-8-10-11-12)	R(1,2-3,4)	R(5-6)	R(12,11,10-9,8,7)	C(1-12)	(1,2-3,4):(5-6) Tie(1-2,3-4)	(1,2-3,4):(12,11,10-9,8,7) Tie(1-2,3-4,12-11-10,9-8-7)	Pri. To Sec.
	70uH±10%	0.62uH MAX.	75mΩ MAX.	250mΩ MAX.	5mΩ MAX.	120pF MAX.	2.44:1, ±3%	1500VAC	1500VAC
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
Overall Dimensions Test									
NO	A	B	C	D	E				
	22.0 MAX.	30.0MAX.	12.0MAX.	0.7±0.1	3.0±0.3				
1									
2									
3									
4									
5									
MIN.	0.00	0.00	0.00	0.00	0.00				
MAX.	0.00	0.00	0.00	0.00	0.00				
AVG.	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
Result	Passed	Passed	Passed	Passed	Passed				
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