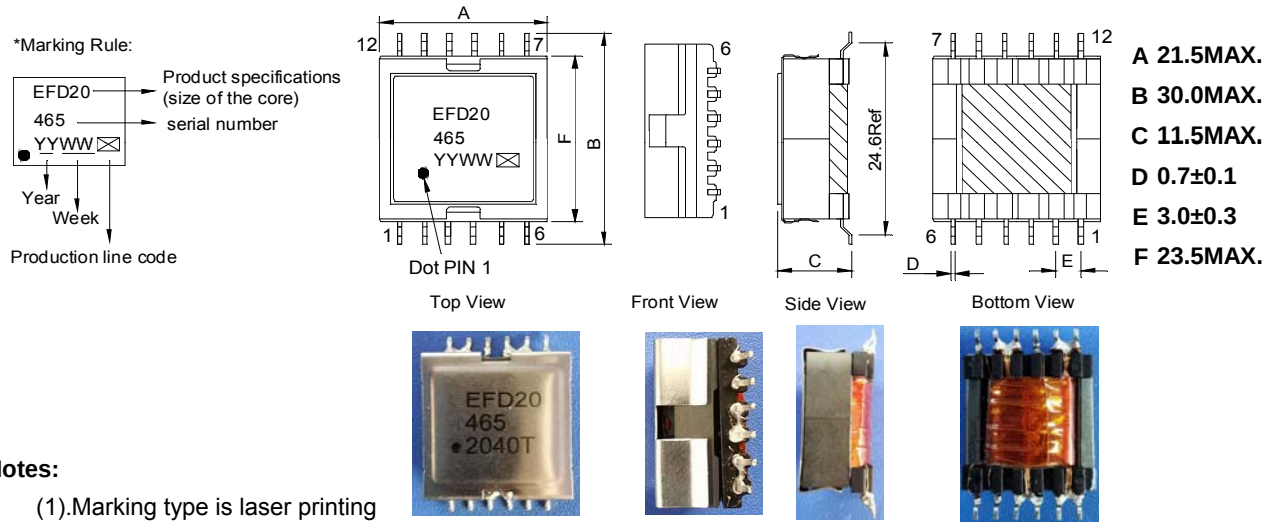
EFD20-465 Product Specification

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

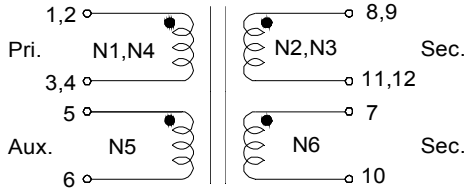
(4).☒ :Use different letters or numbers to represent the products are produced from different production lines

(5).Size B not including soldering tags

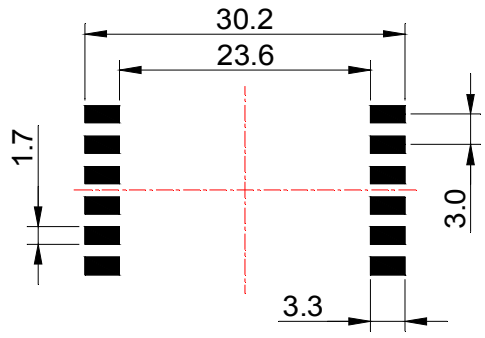
(6).Coplanarity Requirement: Less than 0.10mm

(7).Add epoxy to the center column of the cores

2. Connection



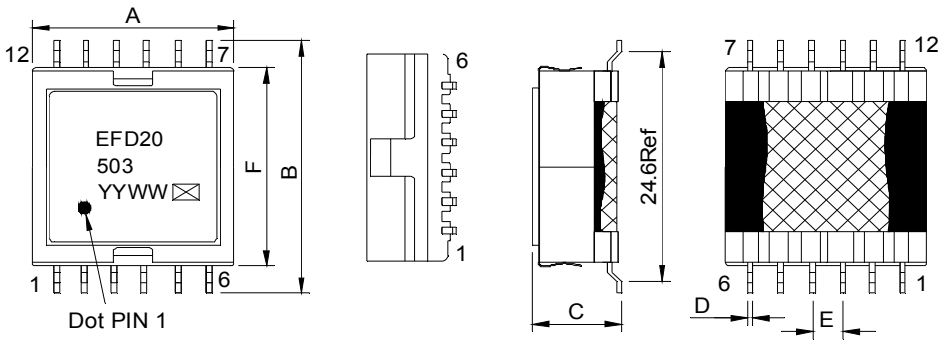
3.Recommended Pad Layout (Unit:mm)



Items	Winding	Specifications	Test Conditions
Inductance	L(1,2-3,4)	100uH±10%	at 100kHz,0.1Vrms
LK-Inductance	LK(1,2-3,4) Tie other	1.0uH MAX.	at 100kHz,0.1Vrms
DCR	R(1,2-3,4)	40mΩ MAX.	at 25℃
	R(8,9-11,12)	10mΩ MAX.	
	R(7-10)	140mΩ MAX.	
	R(5-6)	350mΩ MAX.	
Turns Ratio	(1,2-3,4):(5-6):(7-10):(8,9-11,12)	16:10:4:4;±3%	at 20kHz,1Vrms
Hi-Pot	Pri.To Sec.	1500VAC	0.5mA.3Sec
	Win.To Core	750VAC	0.5mA.3Sec

EFD20-503 Product Specification

1.Physical Dimensions (Unit:mm)



A 21.5MAX.
B 30.0MAX.
C 11.5MAX.
D 0.7±0.1
E 3.0±0.3
F 23.5MAX.

Notes:

*Marking type is laser printing

*YY: Year Code; WW: Week Code

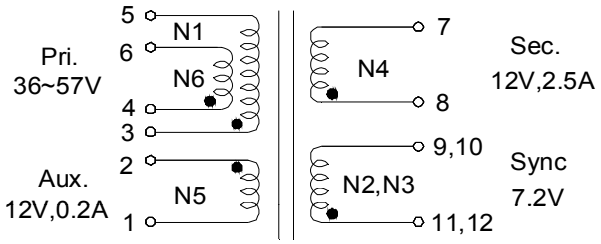
* ☒ :When making samples, S is used to represent the product is a sample.

* ☒ :Use different letters or numbers to represent the products are produced from different production lines .

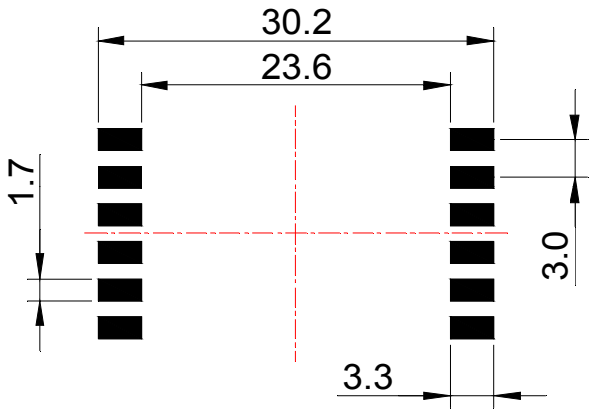
*Size B not including soldering tags

*Coplanarity Requirement: Less than 0.10mm

2. Connection



3.Recommended Pad Layout (Unit:mm)

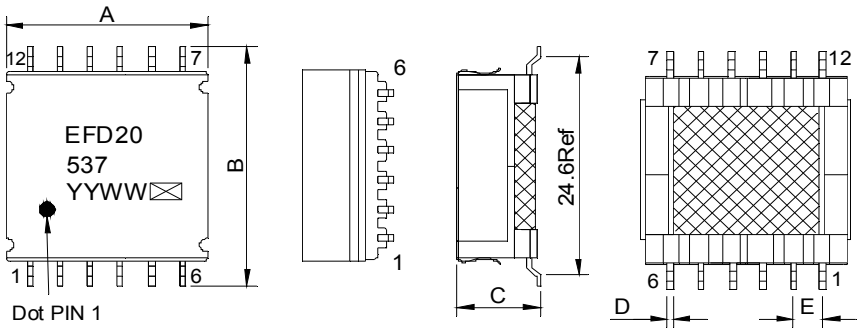


Items	Winding	Specifications	Test Conditions
Inductance	L(3,4-5,6)	75uH±10%	at 200kHz,0.1V
LK-Inductance	LK(3,4-5,6) Tie other	1.0uH MAX.	at 200kHz,0.1V
DCR	R(3,4-5,6)	77mΩ MAX.	at 25℃
	R(2-1)	96mΩ MAX.	
	R(8-7)	70mΩ MAX.	
	R(12,11-9,10)	10mΩ MAX.	
Turns Ratio	(3,4-5,6):(12,11-9,10):(8-7):(2-1)	1:0.25:0.15:0.25;±3%	at 250kHz,0.1V
Hi-Pot	Pri.To Sec.	1500VAC	5mA.1Sec
	Win.To Core	500VAC	5mA.1Sec

EFD20 SERIES

EFD20-537 Product Specification

1.Physical Dimensions (Unit:mm)

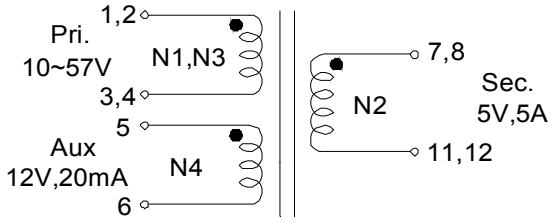


A 22.0 MAX.
B 30.0MAX.
C 12.0MAX.
D 0.7±0.1
E 3.0±0.3

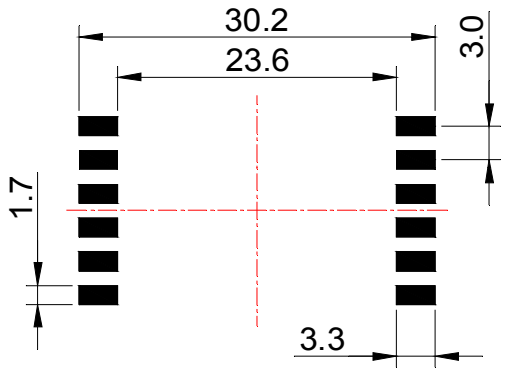
Notes:

(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
(7).Add epoxy to the center column of the cores

2. Connection



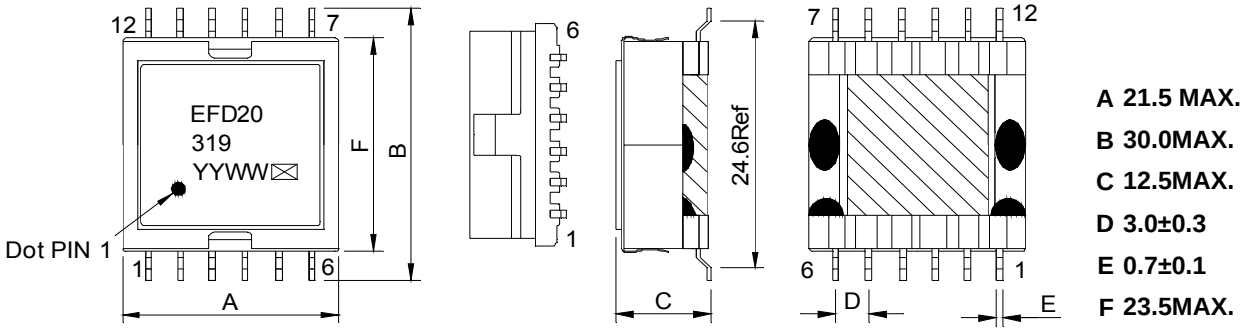
3.Recommended Pad Layout (Unit:mm)



Items	Winding	Specifications	Test Conditions
Inductance	L(1,2-3,4)	90uH MIN.	at 200kHz,0.2V
LK-Inductance	LK(1,2-3,4) Tie other	0.12uH MAX.	at 100kHz,0.1V
DCR	R(1,2-3,4)	22mΩ MAX	at 25℃
	R(7,8-11,12)	17mΩ MAX	
	R(5-6)	320mΩ MAX	
Turns Ratio	(1,2-3,4):(7,8-11,12):(5-6)	1:0.8:1.9;±3%	at 20kHz,1V
Hi-Pot	Pri.To Sec.	1500VAC	5mA.3Sec
	Win. To Core	500VAC	5mA.3Sec

EFD20-319 Product Specification

1.Physical Dimensions (Unit:mm)



Top View Front View Side View Bottom View

A 21.5 MAX.
B 30.0MAX.
C 12.5MAX.
D 3.0±0.3
E 0.7±0.1
F 23.5MAX.

Notes:

(1).Marking type is laser printing

(2).YY: Year Code; WW: Week Code

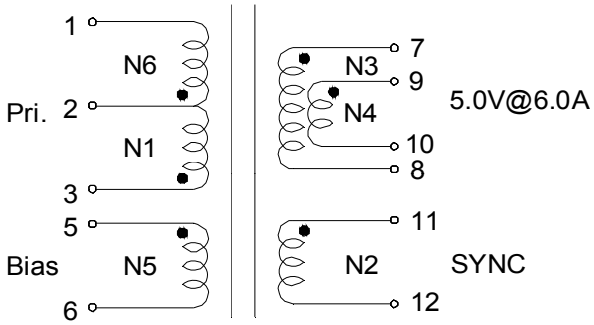
(3). ☒ :When making samples, S is used to represent the product is a sample.

(4). ☒ :Use different letters or numbers to represent the products are produced from different production lines .

(5).Size B not including soldering tags

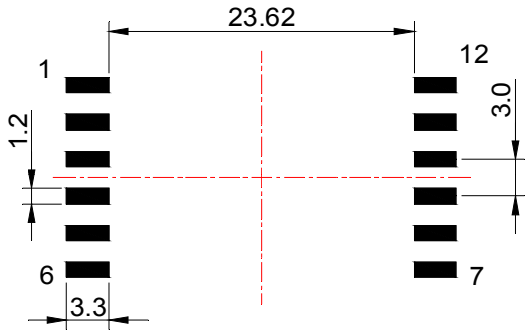
(6).Coplanarity Requirement: Less than 0.15mm

2. Connection



" ● "Start of winding

3.Recommended Pad Layout (Unit:mm)

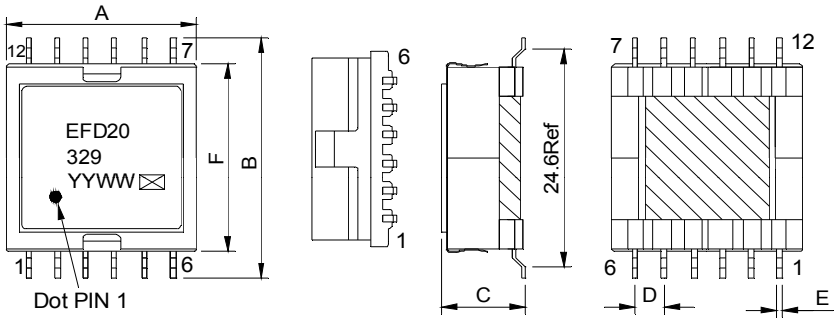


Items	Winding	Specifications	Test Conditions
Inductance	L(3-1)	48~59uH	at 300kHz,0.8Vrms
Inductance	L(3-1)	40uH MIN.	at 300kHz,0.8Vrms @4.4ADC
LK-Inductance	LK(3-1) Tie 7,8,9,10	1.0uH MAX.	at 300kHz,0.8Vrms
DCR	R(3-1)	114mΩ MAX.	at 25℃
	R(5-6)	200m MAX.	
	R(7-8)	13mΩ MAX.	
	R(9-10)	13mΩ MAX.	
	R(11-12)	180mΩ MAX.	
Turns Ratio	(3-1):(11-12):(10-8):(9-7):(5-6)	24:6:5:5:6;±3%	at 30kHz,0.5Vrms
Hi-Pot	1,2,3,5,6 TO 7,8,9,10,11,12	1500VAC	5 mA.60 SEC
	1,2,3,11,12 TO 5,6,7,8,9,10	500VAC	
	Win.TO Core	500VAC	

EFD20 SERIES

EFD20-329 Product Specification

1.Physical Dimensions (Unit:mm)



A 22.0 MAX.
B 30.0MAX.
C 12.0MAX.
D 3.0±0.3
E 0.7±0.1
F 24.0MAX.

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

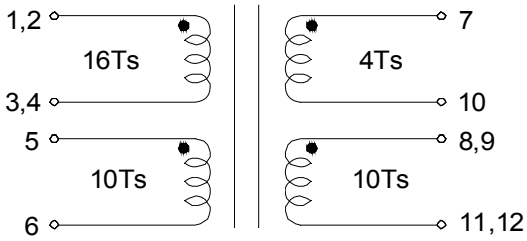
(4).☒ :Use different letters or numbers to represent the products are produced from different production lines

(5).Size B not including soldering tags

(6).Coplanarity Requirement: Less than 0.15mm

(7).Add epoxy to the center column of the cores

2. Connection

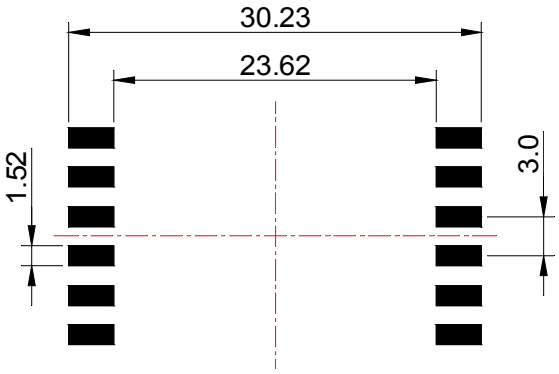


" ● "Start of winding

*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.

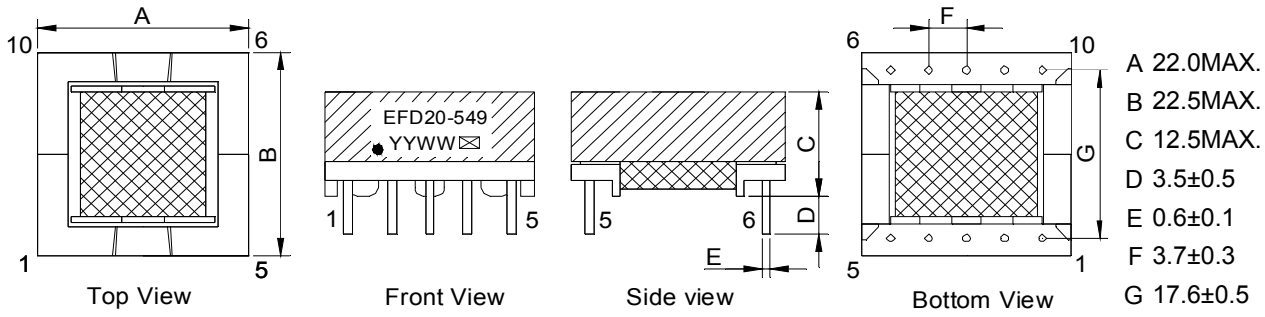
3.Recommended Pad Layout (Unit:mm)



Items	Winding	Specifications	Test Conditions
Inductance	L(1,2-3,4) Tie (1+2,3+4)	*100uH ±10%*	*at 100kHz,0.1Vrms*
LK-Inductance	LK(1,2-3,4) Tie (1+2,3+4,5+6+7+8+9+10+11+12)	0.9uH MAX.	at 100kHz,0.1Vrms
DCR	R(1,2-3,4)	38mΩ MAX.	at 25℃
	R(8,9-11,12)	19mΩ MAX.	
	R(5-6)	350mΩ MAX.	
	R(7-10)	140mΩ MAX.	
Turns Ratio	(1,2-3,4):(5-6):(7-10):(8,9-11,12)	16:10:4:10;±3%	at 100kHz,0.1Vrms
Hi-Pot	Pri. To Sec.	1500VAC	0.5mA.2Sec
	Pri. & Sec.To Core	500VAC	

EFD20-549 Product Specification

1.Physical Dimensions (Unit:mm)



Notes:

(1).Marking type is laser printing

(2).YY: Year Code; WW: Week Code

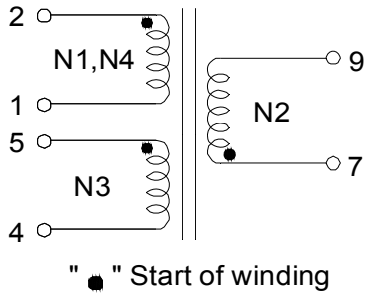
(3). ☒ :When making samples, S is used to represent the product is a sample.

(4). ☒ :Use different letters or numbers to represent the products are produced from different productic

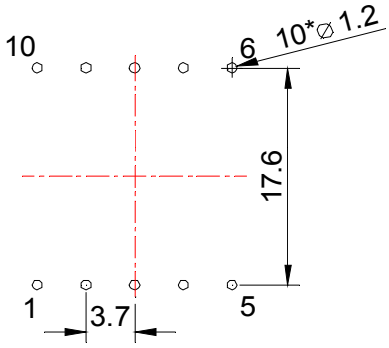
(5).Size D not including soldering tags

(6).Add epoxy to the center column of the cores

2.Connection



3.Recommended Pad Layout (Unit:mm)



Items	Winding	Specifications	Test Conditions
Inductance	L(1-2)	28uH±5%	at 40kHz,1V
LK-Inductance	LK(1-2) Tie others	0.8uH MAX.	at 40kHz,1V
DCR	R(1-2)	TBD mΩ MAX.	at 25℃
	R(7-9)	TBD mΩ MAX.	
	R(5-4)	TBD mΩ MAX.	
Turns Ratio	(1-2):(7-9):(5-4)	1:0.5:0.5;±3%	at 10kHz,1V
Hi-Pot	Pri. to Sec.	1500VAC	5mA,3Sec
	Win. to Core	500VAC	5mA,1Sec