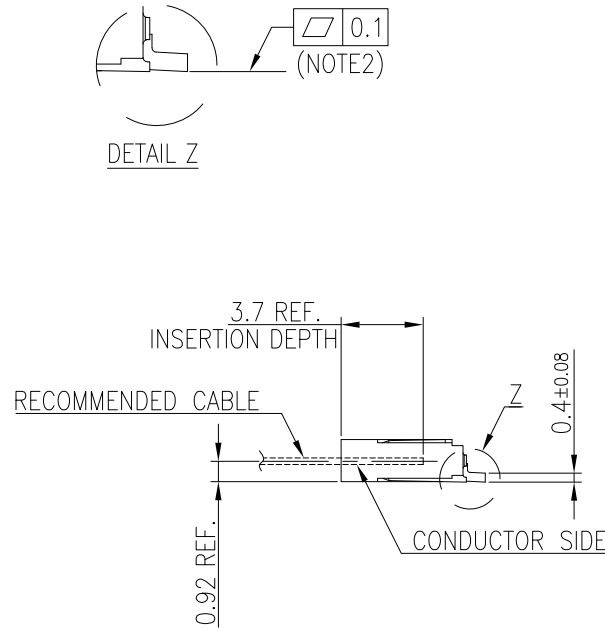
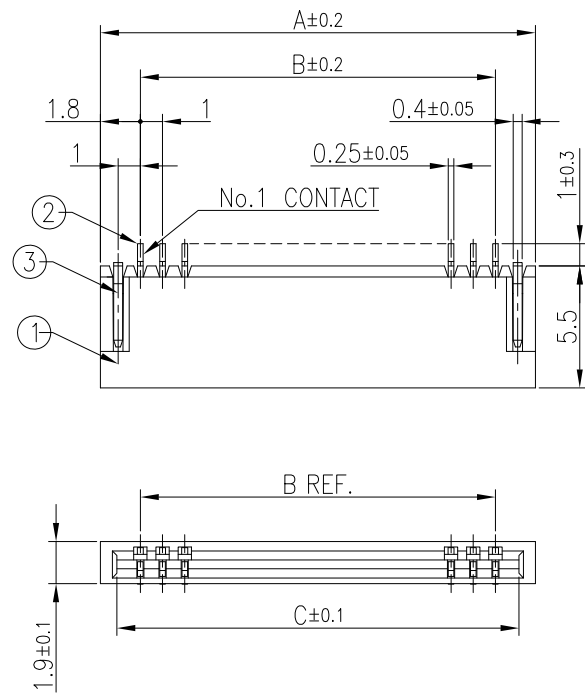


PRODUCT NO.
HFW_R-1ST___H1LF



MATERIAL TABLE

PT. NO.	PARTS NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	LCP RESIN GLASS REINFORCED (UL94V-0)	1	COLOR : BLACK (HALOGEN FREE)
2	CONTACT	PHOSPHOR BRONZE	n	PLATING : SEE PLATING OPTION (LEAD FREE)
3	MOUNTING PLATE		2	PLATING : MATTE TIN 1.5um min (LEAD FREE) NICKEL UNDER PLATING 1.27um min.

n : NO. OF CONTACTS

NOTES

- THIS PRODUCT IS THE LOWER CONTACT TYPE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES WITH AUTOMATIC MOUNTING (SMT).
- FLATNESS OF CONTACT TERMINAL AND MOUNTING PLATE TO HOUSING MUST BE WITHIN TOLERANCE IN Z PORTION DETAILED DRAWING.
- THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS47-0004.
- THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A REFLOW SOLDERING OVEN.
- CATALOG NUMBER STRUCTURE IS AS FOLLOWINGS.

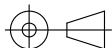
SERIES NAME _____ HFW (n) R - 1 ST A ___ H1LF
NO. OF CONTACT _____
RIGHT ANGLE TYPE _____
LOWER CONTACT TYPE FOR FPC/FFC _____
FOR AUTOMATIC MOUNTING (SMT) _____
PLATING OPTION _____
1.27um min. Ni UNDER PLATING FOR ALL OPTIONS
FINISH PLATING : REFER TO PLATING OPTION TABLE
PACKAGING OPTION _____
REFER TO SHEET2
HALOGEN AND LEAD FREE _____

CAT. NO. & DIMENSIONS

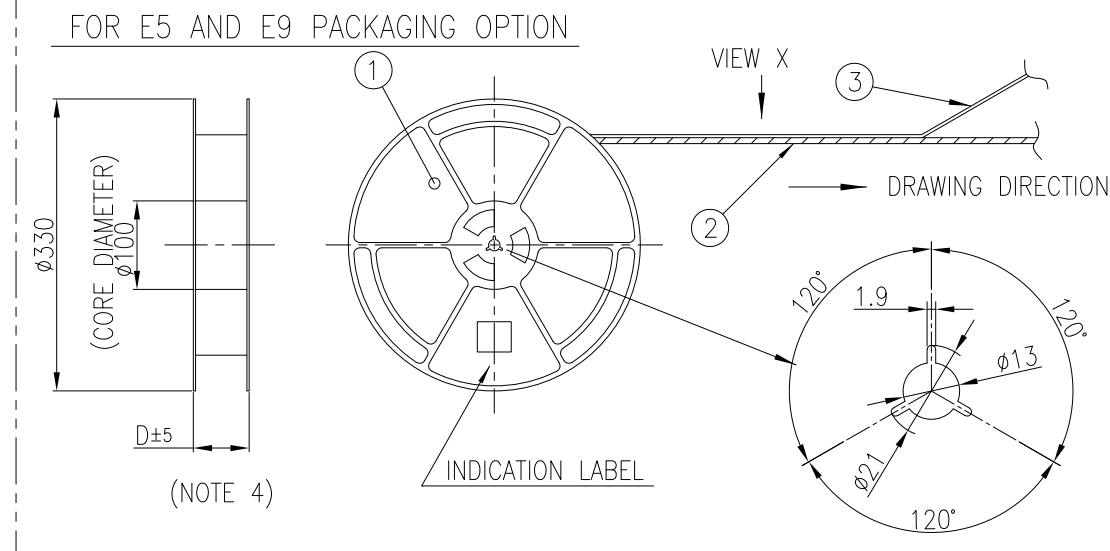
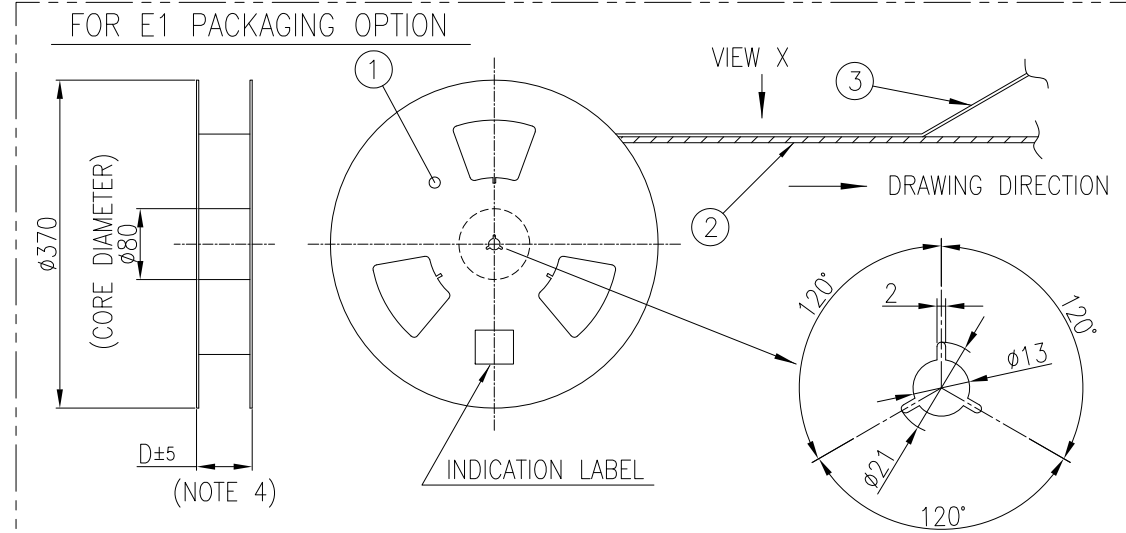
NO. OF CONT (n)	CAT. NO.	DIMENSIONS		
		A	B	C
4	HFW4R-1ST___H1LF	6.6	3	5.14
5	HFW5R-1ST___H1LF	7.6	4	6.14
6	HFW6R-1ST___H1LF	8.6	5	7.14
7	HFW7R-1ST___H1LF	9.6	6	8.14
8	HFW8R-1ST___H1LF	10.6	7	9.14
9	HFW9R-1ST___H1LF	11.6	8	10.14
10	HFW10R-1ST___H1LF	12.6	9	11.14
11	HFW11R-1ST___H1LF	13.6	10	12.14
12	HFW12R-1ST___H1LF	14.6	11	13.14
13	HFW13R-1ST___H1LF	15.6	12	14.14
14	HFW14R-1ST___H1LF	16.6	13	15.14
15	HFW15R-1ST___H1LF	17.6	14	16.14
16	HFW16R-1ST___H1LF	18.6	15	17.14
17	HFW17R-1ST___H1LF	19.6	16	18.14
18	HFW18R-1ST___H1LF	20.6	17	19.14
19	HFW19R-1ST___H1LF	21.6	18	20.14
20	HFW20R-1ST___H1LF	22.6	19	21.14
21	HFW21R-1ST___H1LF	23.6	20	22.14
22	HFW22R-1ST___H1LF	24.6	21	23.14
23	HFW23R-1ST___H1LF	25.6	22	24.14
24	HFW24R-1ST___H1LF	26.6	23	25.14
25	HFW25R-1ST___H1LF	27.6	24	26.14
26	HFW26R-1ST___H1LF	28.6	25	27.14
27	HFW27R-1ST___H1LF	29.6	26	28.14
28	HFW28R-1ST___H1LF	30.6	27	29.14
29	HFW29R-1ST___H1LF	31.6	28	30.14
30	HFW30R-1ST___H1LF	32.6	29	31.14

PLATING OPTION TABLE

PRODUCT NUMBER	PLATING OPTION	CONTACT PLATING	TERMINAL PLATING
HFW_R-1ST___H1LF	BLANK	MATTE TIN : 2um min.	MATTE TIN : 2um min.
HFW_R-1STZ___H1LF	Z	MATTE THIN TIN PLATING	MATTE TIN : 1um min.
HFW_R-1STA___H1LF	A	GOLD : 0.3um min.	GOLD : 0.05um min.
HFW_R-1STB___H1LF	B	GOLD : 0.3um min.	MATTE TIN : 1um min.
HFW_R-1STG___H1LF	G	GOLD : 0.05um min. WITH Ni DAM	GOLD : 0.05um min.

mat'l. code SEE_TABLE				surface ISO 1302 ✓				tolerance ISO 406 ISO 1101				projection 				product family 58NF													
ltr	ecn no		dr	date		tolerances unless otherwise specified								title 1mm SPACING SMT CONNECTOR (Cat. No. HFW__R-1ST__H1LF)															
A			S.W.	2018-10-18		angles linear		0.X/±0.2						scale 3:1															
								0.XX/±0.2																					
								0°±2°																					
						dr	S.WATANABE		2018-10-18						dwg no				sheet 1 of 5				size						
						engr	S.WATANABE		2018-10-18						10149903				A3										
						chr	S-H.THIO		2018-10-19																				
						appd	Y.KAMEDA		2018-10-19																				
sheet index		revision sheet		A	A	A	A	A																					
				1	2	3	4	5																					

PRODUCT NO.
HFW__R-1ST_E_H1LF

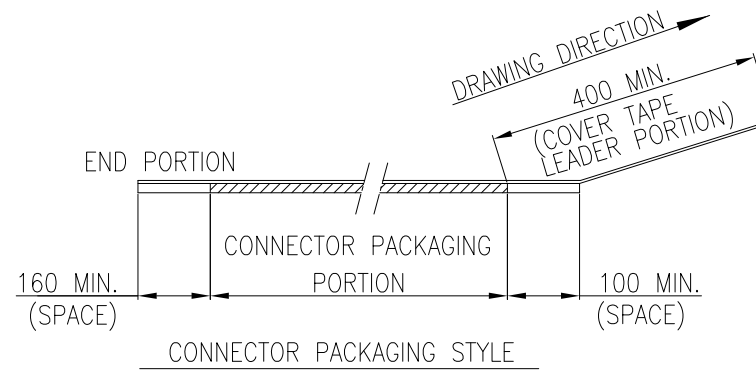
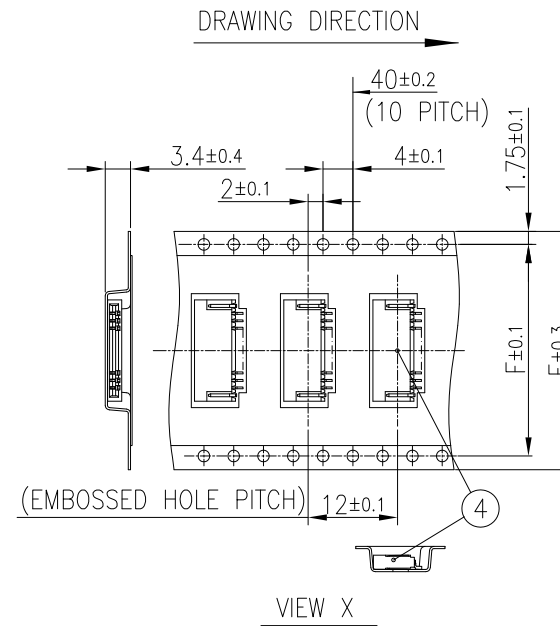


PACKAGING OPTION TABLE

PRODUCT NUMBER	PACKAGING OPTION	REEL MATERIAL	REEL DIAMETER	CONNECTOR QUANTITY
HFW_R-1ST_E1H1LF	E1	CARDBOARD	φ370	2000 / REEL
HFW_R-1ST_E5H1LF	E5	PLASTIC	φ330	1500 / REEL
HFW_R-1ST_E9H1LF	E9	PLASTIC	φ330	500 / REEL

NOTES

- THIS IS PLASTIC TAPE PACKAGED CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND CYPES WITH AUTOMATIC MOUNTING (SMT).
- SEE JIS C 0806 (PACKING OF ELECTRONIC COMPONENTS ON CONTINUOUS TAPES (SURFACE MOUNTING DEVICES)) FOR SHAPE AND DIMENSIONS OF PLASTIC (EMBOSSSED) TAPE AND REEL.
- D DIMENSION IS PORTION OF THE CORE.



CAT. NO. & DIMENSIONS

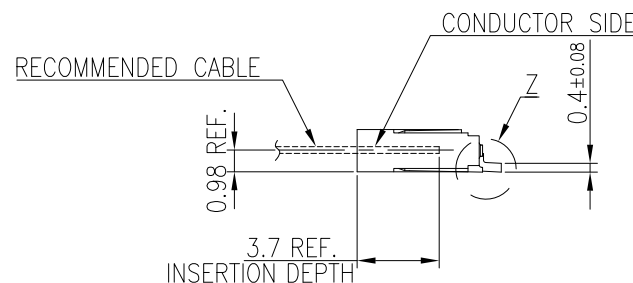
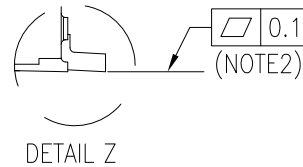
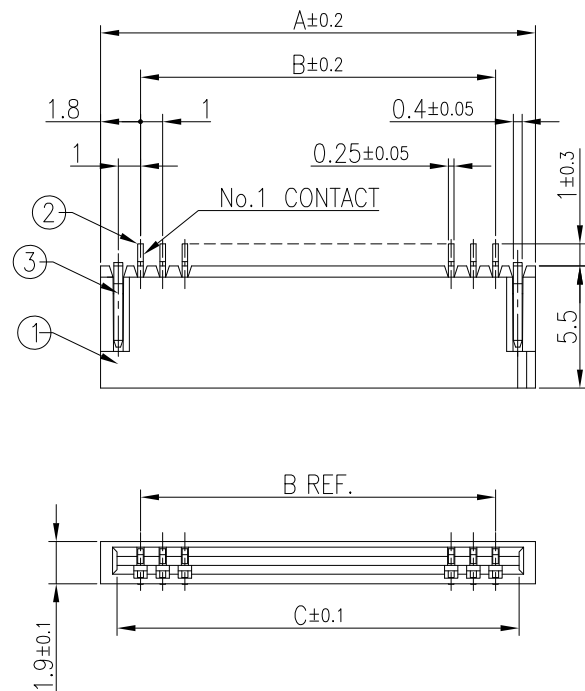
NO. OF CONT (n)	CAT. NO.	DIMENSIONS		
		D	E	F
4	HFW4R-1ST_E_H1LF	28.4	24	—
5	HFW5R-1ST_E_H1LF	28.4	24	—
6	HFW6R-1ST_E_H1LF	28.4	24	—
7	HFW7R-1ST_E_H1LF	28.4	24	—
8	HFW8R-1ST_E_H1LF	28.4	24	—
9	HFW9R-1ST_E_H1LF	28.4	24	—
10	HFW10R-1ST_E_H1LF	28.4	24	—
11	HFW11R-1ST_E_H1LF	28.4	24	—
12	HFW12R-1ST_E_H1LF	28.4	24	—
13	HFW13R-1ST_E_H1LF	28.4	24	—
14	HFW14R-1ST_E_H1LF	28.4	24	—
15	HFW15R-1ST_E_H1LF	36.4	32	28.4
16	HFW16R-1ST_E_H1LF	36.4	32	28.4
17	HFW17R-1ST_E_H1LF	36.4	32	28.4
18	HFW18R-1ST_E_H1LF	36.4	32	28.4
19	HFW19R-1ST_E_H1LF	48.4	44	40.4
20	HFW20R-1ST_E_H1LF	48.4	44	40.4
21	HFW21R-1ST_E_H1LF	48.4	44	40.4
22	HFW22R-1ST_E_H1LF	48.4	44	40.4
23	HFW23R-1ST_E_H1LF	48.4	44	40.4
24	HFW24R-1ST_E_H1LF	48.4	44	40.4
25	HFW25R-1ST_E_H1LF	48.4	44	40.4
26	HFW26R-1ST_E_H1LF	48.4	44	40.4
27	HFW27R-1ST_E_H1LF	48.4	44	40.4
28	HFW28R-1ST_E_H1LF	48.4	44	40.4
29	HFW29R-1ST_E_H1LF	48.4	44	40.4
30	HFW30R-1ST_E_H1LF	60.4	56	52.4

MATERIAL TABLE

PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	COLOR
1	REEL	—	CARDBOARD	WHITE
			POLYSTYRENE	BLACK
2	EMBOSS TAPE	—	A-PET	TRANSPARENT
3	COVER TAPE	—	POLYESTER	TRANSPARENT
4	CONNECTOR	HFW_R-1ST__H1LF	SEE SHEET 1	

mat'l. code SEE_TABLE				surface ISO 1302 ✓	tolerance ISO 406 ISO 1101	projection MM	product family 58NF			
ltr	ecn	no	dr	date	tolerances unless otherwise specified		title 1mm SPACING SMT CONNECTOR (Cat.No. HFW__R-1ST_E_H1LF)			
A					angles linear	0.X/±0.5 0.XX/±0.5 0.XXX/±0.5	dwg no 10149903			
					0°±5'	scale N/A	sheet 2 of 5			
					dr S.WATANABE	2018-10-22	size A3			
					enr S.WATANABE	2018-10-22				
					chr S-H.THIO	2018-10-22				
					appd Y.KAMEDA	2018-10-22				
sheet index	revision sheet						type CUSTOMER DRAWING			

PRODUCT NO.
HFW_R-2ST___H1LF



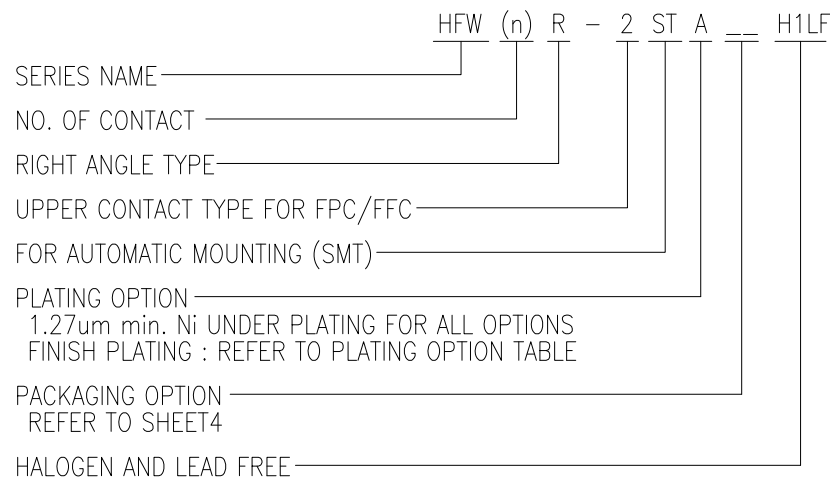
MATERIAL TABLE

PT. NO.	PARTS NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	LCP RESIN GLASS REINFORCED (UL94V-0)	1	COLOR : BLACK (HALOGEN FREE)
2	CONTACT	PHOSPHOR BRONZE	n	PLATING : SEE PLATING OPTION (LEAD FREE)
3	MOUNTING PLATE		2	PLATING : MATTE TIN 1.5um min. (LEAD FREE) NICKEL UNDER PLATING 1.27um min.

n : NO. OF CONTACTS

NOTES

- THIS PRODUCT IS THE UPPER CONTACT TYPE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES WITH AUTOMATIC MOUNTING (SMT).
- FLATNESS OF CONTACT TERMINAL AND MOUNTING PLATE TO HOUSING MUST BE WITHIN TOLERANCE IN Z PORTION DETAILED DRAWING.
- THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS47-0004.
- THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A REFLOW SOLDERING OVEN.
- CATALOG NUMBER STRUCTURE IS AS FOLLOWINGS.



CAT. NO. & DIMENSIONS

NO. OF CONT (n)	CAT. NO.	DIMENSIONS		
		A	B	C
4	HFW4R-2ST___H1LF	6.6	3	5.14
5	HFW5R-2ST___H1LF	7.6	4	6.14
6	HFW6R-2ST___H1LF	8.6	5	7.14
7	HFW7R-2ST___H1LF	9.6	6	8.14
8	HFW8R-2ST___H1LF	10.6	7	9.14
9	HFW9R-2ST___H1LF	11.6	8	10.14
10	HFW10R-2ST___H1LF	12.6	9	11.14
11	HFW11R-2ST___H1LF	13.6	10	12.14
12	HFW12R-2ST___H1LF	14.6	11	13.14
13	HFW13R-2ST___H1LF	15.6	12	14.14
14	HFW14R-2ST___H1LF	16.6	13	15.14
15	HFW15R-2ST___H1LF	17.6	14	16.14
16	HFW16R-2ST___H1LF	18.6	15	17.14
17	HFW17R-2ST___H1LF	19.6	16	18.14
18	HFW18R-2ST___H1LF	20.6	17	19.14
19	HFW19R-2ST___H1LF	21.6	18	20.14
20	HFW20R-2ST___H1LF	22.6	19	21.14
21	HFW21R-2ST___H1LF	23.6	20	22.14
22	HFW22R-2ST___H1LF	24.6	21	23.14
23	HFW23R-2ST___H1LF	25.6	22	24.14
24	HFW24R-2ST___H1LF	26.6	23	25.14
25	HFW25R-2ST___H1LF	27.6	24	26.14
26	HFW26R-2ST___H1LF	28.6	25	27.14
27	HFW27R-2ST___H1LF	29.6	26	28.14
28	HFW28R-2ST___H1LF	30.6	27	29.14
29	HFW29R-2ST___H1LF	31.6	28	30.14
30	HFW30R-2ST___H1LF	32.6	29	31.14

PLATING OPTION TABLE

PRODUCT NUMBER	PLATING OPTION	CONTACT PLATING	TERMINAL PLATING
HFW_R-2ST___H1LF	BLANK	MATTE TIN : 2um min.	MATTE TIN : 2um min.
HFW_R-2STZ___H1LF	Z	MATTE THIN TIN PLATING	MATTE TIN : 1um min.
HFW_R-2STA___H1LF	A	GOLD : 0.3um min.	GOLD : 0.05um min.
HFW_R-2STB___H1LF	B	GOLD : 0.3um min.	MATTE TIN : 1um min.
HFW_R-2STG___H1LF	G	GOLD : 0.05um min. WITH Ni DAM	GOLD : 0.05um min.

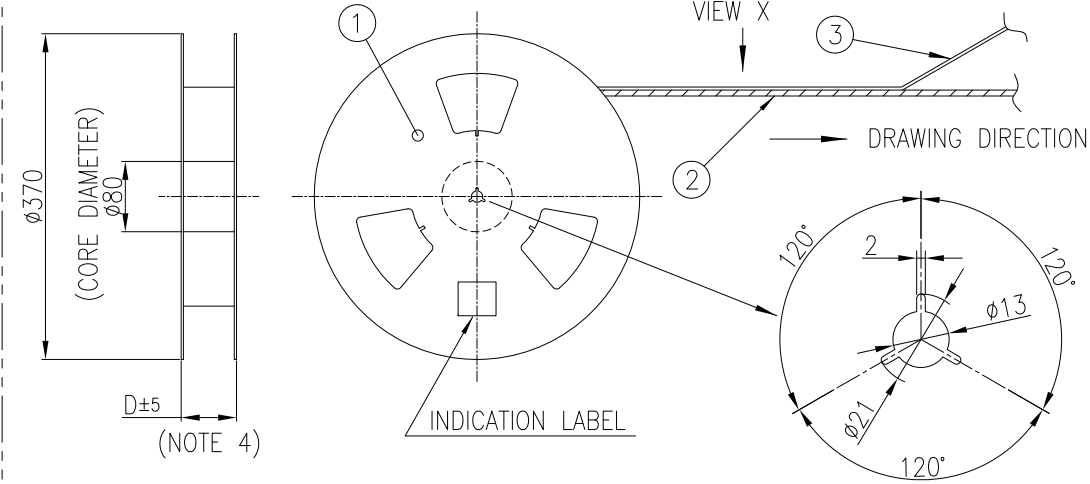
mat'l. code SEE_TABLE				surface ISO 1302 ✓	tolerance ISO 406 ISO 1101	projection MM	product family 58NF
ltr	ecn no	dr	date	tolerances unless otherwise specified			title
A				angles linear	0.X/±0.2		1mm SPACING SMT CONNECTOR (Cat. No. HFW___R-2ST___H1LF)
				0°±2°	0.XX/±0.2	scale 3:1	
				dr	S.WATANABE	2018-10-18	dwg no
				enr	S.WATANABE	2018-10-18	sheet 3 of 5
				chr	S-H.THIO	2018-10-19	size
				appd	Y.KAMEDA	2018-10-19	10149903
sheet index	revision sheet						type
							CUSTOMER DRAWING

PRODUCT NO.
HFW__R-2ST_E_H1LF

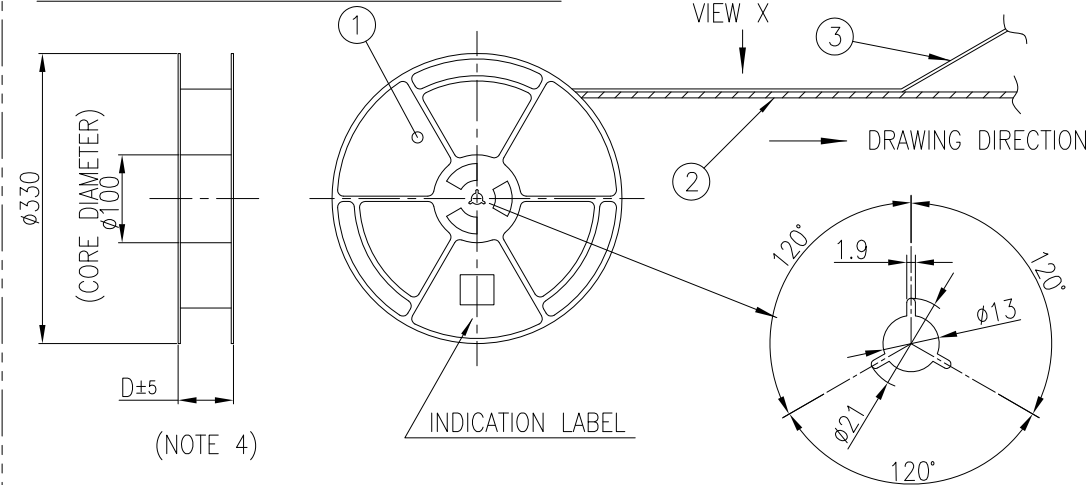
CAT. NO. & DIMENSIONS

NO. OF CONT (n)	CAT. NO.	DIMENSIONS		
		D	E	F
4	HFW4R-2ST_E_H1LF	28.4	24	—
5	HFW5R-2ST_E_H1LF	28.4	24	—
6	HFW6R-2ST_E_H1LF	28.4	24	—
7	HFW7R-2ST_E_H1LF	28.4	24	—
8	HFW8R-2ST_E_H1LF	28.4	24	—
9	HFW9R-2ST_E_H1LF	28.4	24	—
10	HFW10R-2ST_E_H1LF	28.4	24	—
11	HFW11R-2ST_E_H1LF	28.4	24	—
12	HFW12R-2ST_E_H1LF	28.4	24	—
13	HFW13R-2ST_E_H1LF	28.4	24	—
14	HFW14R-2ST_E_H1LF	28.4	24	—
15	HFW15R-2ST_E_H1LF	36.4	32	28.4
16	HFW16R-2ST_E_H1LF	36.4	32	28.4
17	HFW17R-2ST_E_H1LF	36.4	32	28.4
18	HFW18R-2ST_E_H1LF	36.4	32	28.4
19	HFW19R-2ST_E_H1LF	48.4	44	40.4
20	HFW20R-2ST_E_H1LF	48.4	44	40.4
21	HFW21R-2ST_E_H1LF	48.4	44	40.4
22	HFW22R-2ST_E_H1LF	48.4	44	40.4
23	HFW23R-2ST_E_H1LF	48.4	44	40.4
24	HFW24R-2ST_E_H1LF	48.4	44	40.4
25	HFW25R-2ST_E_H1LF	48.4	44	40.4
26	HFW26R-2ST_E_H1LF	48.4	44	40.4
27	HFW27R-2ST_E_H1LF	48.4	44	40.4
28	HFW28R-2ST_E_H1LF	48.4	44	40.4
29	HFW29R-2ST_E_H1LF	48.4	44	40.4
30	HFW30R-2ST_E_H1LF	60.4	56	52.4

FOR E1 PACKAGING OPTION

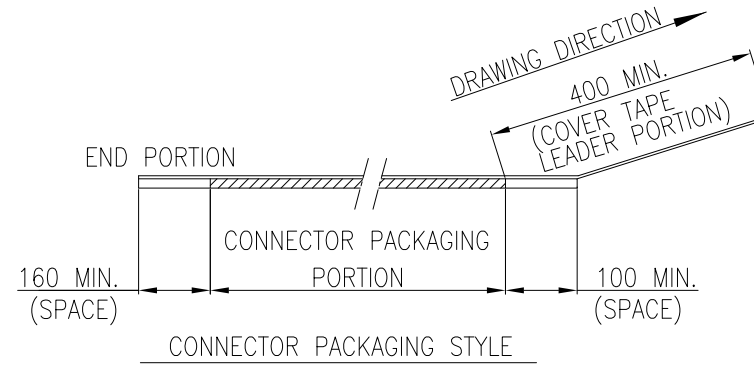
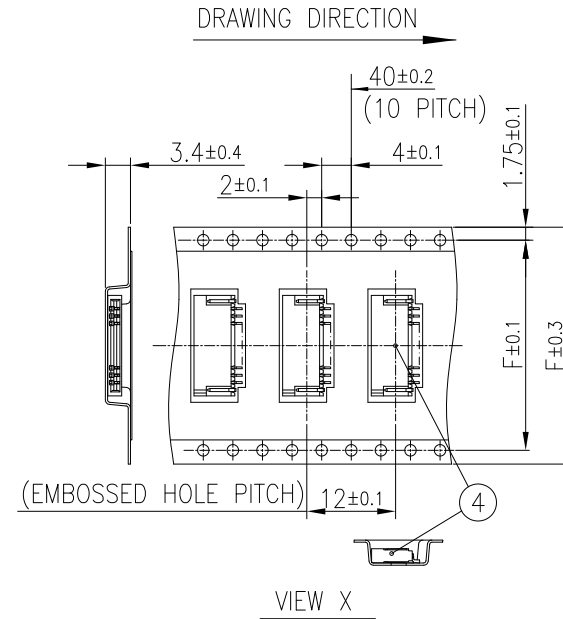


FOR E5 AND E9 PACKAGING OPTION



PACKAGING OPTION TABLE

PRODUCT NUMBER	PACKAGING OPTION	REEL MATERIAL	REEL DIAMETER	CONNECTOR QUANTITY
HFW_R-2ST_E1H1LF	E1	CARDBOARD	$\phi 370$	2000 / REEL
HFW_R-2ST_E5H1LF	E5	PLASTIC	$\phi 330$	1500 / REEL
HFW_R-2ST_E9H1LF	E9	PLASTIC	$\phi 330$	500 / REEL



MATERIAL TABLE

PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	COLOR
1	REEL	—	CARDBOARD	WHITE
			POLYSTYRENE	BLACK
2	EMBOSS TAPE	—	A-PET	TRANSPARENT
3	COVER TAPE	—	POLYESTER	TRANSPARENT
4	CONNECTOR	HFW_R-2ST___H1LF	SEE SHEET 3	

NOTES

- THIS IS PLASTIC TAPE PACKAGED CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES WITH AUTOMATIC MOUNTING (SMT).
- SEE JIS C 0806 (PACKING OF ELECTRONIC COMPONENTS ON CONTINUOUS TAPES (SURFACE MOUNTING DEVICES)) FOR SHAPE AND DIMENSIONS OF PLASTIC (EMBOSS) TAPE AND REEL.
- D DIMENSION IS PORTION OF THE CORE.

mat'l. code SEE_TABLE				surface ISO 1302 ✓	tolerance ISO 406 ISO 1101	projection MM	product family 58NF
ltr	ecn no	dr	date	tolerances unless angles linear	0.X/±0.5 0.XX/±0.5 0.XXX/±0.5	scale N/A	title 1mm SPACING SMT CONNECTOR (Cat.No. HFW__R-2ST_E_H1LF)
A				0°±5°			
				dr	S.WATANABE	2018-10-22	dwg no
				enr	S.WATANABE	2018-10-22	sheet 4 of 5
				chr	S-H.THIO	2018-10-22	size
				appd	Y.KAMEDA	2018-10-22	A3
sheet index	revision sheet						type CUSTOMER DRAWING

