



A

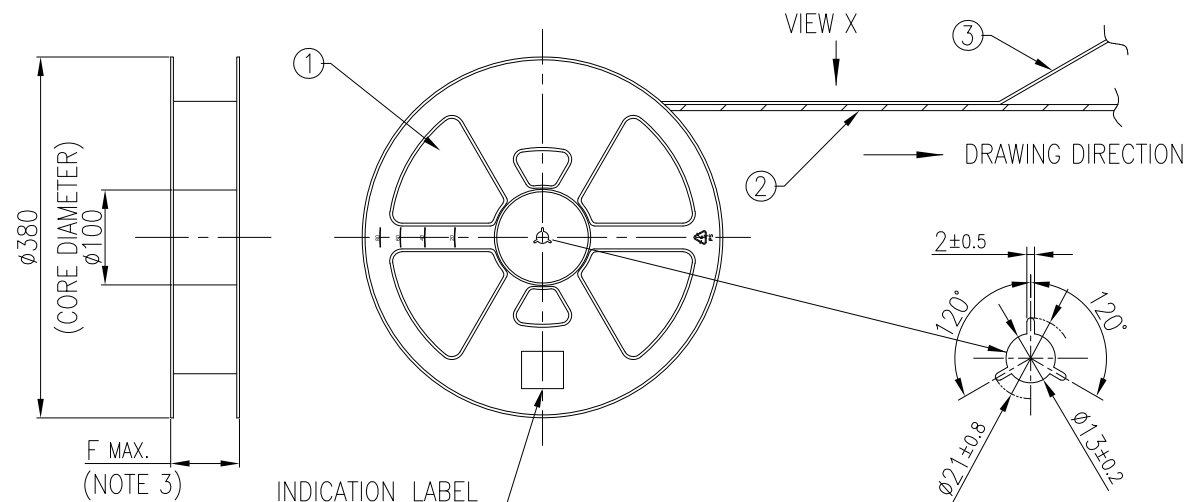
B

C

D

PRODUCT NO.
HFW__S-2STE1HLF
HFW__S-4STZE1HLF
HFW__S-2STAE1HLF

△ FOR E1 PACKAGING OPTION



MATERIAL TABLE

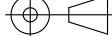
PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	COLOR
1	REEL		△ POLYSTYRENE	△ BLACK
2	EMBOSS TAPE		PS	TRANSPARENT
3	COVER TAPE		POLYESTER,POLYETHYLENE	TRANSPARENT
4	CONNECTOR	HFW__S-__ST__HLF	SEE SHEET 2	

PACKAGING OPTION TABLE

PRODUCT NUMBER	PACKAGING OPTION	REEL MATERIAL	REEL DIAMETER	CONNECTOR QUANTITY
HFW__S-__ST_E1HLF	E1	△ PLASTIC	△ 380	1000 / 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 (EMBOSSED) TAPE AND REEL.
- F DIMENSION IS PORTION OF THE CORE.

mat'l. code SEE_TABLE				surface ISO 1302 ✓			tolerance ISO 406 ISO 1101			projection 			product family 580F														
ltr	ecn no		dr	date		tolerances unless otherwise specified									title PLASTIC TAPE PACKAGED 1mm CONTACT SPACING CONNECTOR (Cat. No. HFW__S-2/4ST_E1HLF)												
A			S.W	2023-12-15		angles		linear		0.X/±0.5																	
						0°±5°				0.XX/±0.5																	
						0.XXX/±0.5		scale N/A																			
						dr		S.WATANABE		2023-12-15																	
						enr		S.WATANABE		2023-12-15																	
						chr		AN.MUHAMMAD-NABEEL		2023-12-15																	
						appd		Y.KAMEDA		2023-12-15			dwg no			sheet 1 of 4						size					
sheet index			revision sheet		A	A	A							10172412			A3										
					1	2	3							type			PRODUCT CUSTOMER DRAWING										

CAT. NO. & DIMENSIONS

NO. OF CONT (n)	CAT. NO.	DIMENSIONS		
		△ F	G	H
4	HFW4S-__ST_E1HLF	30.4	24	—
5	HFW5S-__ST_E1HLF	30.4	24	—
6	HFW6S-__ST_E1HLF	30.4	24	—
7	HFW7S-__ST_E1HLF	30.4	24	—
8	HFW8S-__ST_E1HLF	30.4	24	—
9	HFW9S-__ST_E1HLF	30.4	24	—
10	HFW10S-__ST_E1HLF	30.4	24	—
11	HFW11S-__ST_E1HLF	30.4	24	—
12	HFW12S-__ST_E1HLF	30.4	24	—
13	HFW13S-__ST_E1HLF	30.4	24	—
14	HFW14S-__ST_E1HLF	38.4	32	28.4
15	HFW15S-__ST_E1HLF	38.4	32	28.4
16	HFW16S-__ST_E1HLF	38.4	32	28.4
17	HFW17S-__ST_E1HLF	38.4	32	28.4
18	HFW18S-__ST_E1HLF	50.4	44	40.4
19	HFW19S-__ST_E1HLF	50.4	44	40.4
20	HFW20S-__ST_E1HLF	50.4	44	40.4
21	HFW21S-__ST_E1HLF	50.4	44	40.4
22	HFW22S-__ST_E1HLF	50.4	44	40.4
23	HFW23S-__ST_E1HLF	50.4	44	40.4
24	HFW24S-__ST_E1HLF	50.4	44	40.4
25	HFW25S-__ST_E1HLF	50.4	44	40.4
26	HFW26S-__ST_E1HLF	50.4	44	40.4
27	HFW27S-__ST_E1HLF	50.4	44	40.4
28	HFW28S-__ST_E1HLF	50.4	44	40.4
29	HFW29S-__ST_E1HLF	62.4	56	52.4
30	HFW30S-__ST_E1HLF	62.4	56	52.4
32	HFW32S-__ST_E1HLF	62.4	56	52.4

A

B

C

D



PRODUCT NO.
HFW__S-2ST__HLF
HFW__S-4STZ__HLF
HFW__S-2STA__HLF

CONDUCTOR SIDE MARK

CARVED MARK
(NOTE7)

No.1 CONTACT

①

②

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)

n : NO. OF CONTACTS

NOTES

1. THIS PRODUCT IS STRAIGHT TYPE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES WITH AUTOMATIC MOUNTING (SMT).
2. FLATNESS OF CONTACT TERMINAL TO HOUSING MUST BE WITHIN 0.1 AS DESCRIBED THE DRAWING.
3. THIS DIMENSION IS SPACE FOR THE NOZZLE OF MOUNTER. PRODUCT LESS THAN 8 PINCOUNT HAVE WHOLE FLAT SURFACE AS SHOWN IN FIGURE.
4. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS47-0004.
5. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A REFLOW SOLDERING OVEN.
6. APPLICATION SPEC : GS-20-0459. PRODUCT SPEC : REFER TO PLATING OPTION TABLE.
7. CARVED MARK IS APPLIED ONLY FOR HFW_S-4STZ__HLF.
8. CATALOG NUMBER STRUCTURE IS AS FOLLOWINGS.

HFWS(n)S-2STA__HLF

SERIES NAME _____

NO. OF CONTACT _____

STRAIGHT TYPE _____

FOR FPC/FFC _____

REFER TO PLATING OPTION TABLE AND SECTION X-X

FOR AUTOMATIC MOUNTING (SMT) _____

PLATING OPTION _____

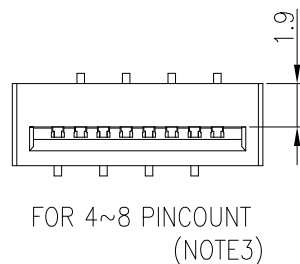
1.27um min. Ni UNDER PLATING FOR ALL OPTIONS

FINISH PLATING : REFER TO PLATING OPTION TABLE

PACKAGING OPTION _____

REFER TO SHEET 1

LEAD AND HALOGEN FREE _____



CAT. NO. & DIMENSIONS

NO. OF CONT (n)	CAT. NO.	DIMENSIONS				
		A	B	C	D	E
4	HFW4S-__ST__HLF	7.0	5.14	3.0	—	—
5	HFW5S-__ST__HLF	8.0	6.14	4.0	—	—
6	HFW6S-__ST__HLF	9.0	7.14	5.0	—	—
7	HFW7S-__ST__HLF	10.0	8.14	6.0	—	—
8	HFW8S-__ST__HLF	11.0	9.14	7.0	—	—
9	HFW9S-__ST__HLF	12.0	10.14	8.0	0.35	7.3
10	HFW10S-__ST__HLF	13.0	11.14	9.0	0.35	8.3
11	HFW11S-__ST__HLF	14.0	12.14	10.0	1.35	7.3
12	HFW12S-__ST__HLF	15.0	13.14	11.0	1.35	8.3
13	HFW13S-__ST__HLF	16.0	14.14	12.0	2.35	7.3
14	HFW14S-__ST__HLF	17.0	15.14	13.0	2.35	8.3
15	HFW15S-__ST__HLF	18.0	16.14	14.0	3.35	7.3
16	HFW16S-__ST__HLF	19.0	17.14	15.0	3.35	8.3
17	HFW17S-__ST__HLF	20.0	18.14	16.0	4.35	7.3
18	HFW18S-__ST__HLF	21.0	19.14	17.0	4.35	8.3
19	HFW19S-__ST__HLF	22.0	20.14	18.0	5.35	7.3
20	HFW20S-__ST__HLF	23.0	21.14	19.0	5.35	8.3
21	HFW21S-__ST__HLF	24.0	22.14	20.0	6.35	7.3
22	HFW22S-__ST__HLF	25.0	23.14	21.0	6.35	8.3
23	HFW23S-__ST__HLF	26.0	24.14	22.0	7.35	7.3
24	HFW24S-__ST__HLF	27.0	25.14	23.0	7.35	8.3
25	HFW25S-__ST__HLF	28.0	26.14	24.0	8.35	7.3
26	HFW26S-__ST__HLF	29.0	27.14	25.0	8.35	8.3
27	HFW27S-__ST__HLF	30.0	28.14	26.0	9.35	7.3
28	HFW28S-__ST__HLF	31.0	29.14	27.0	9.35	8.3
29	HFW29S-__ST__HLF	32.0	30.14	28.0	10.35	7.3
30	HFW30S-__ST__HLF	33.0	31.14	29.0	10.35	8.3
32	HFW32S-__ST__HLF	35.0	33.14	31.0	11.35	8.3

PLATING OPTION TABLE

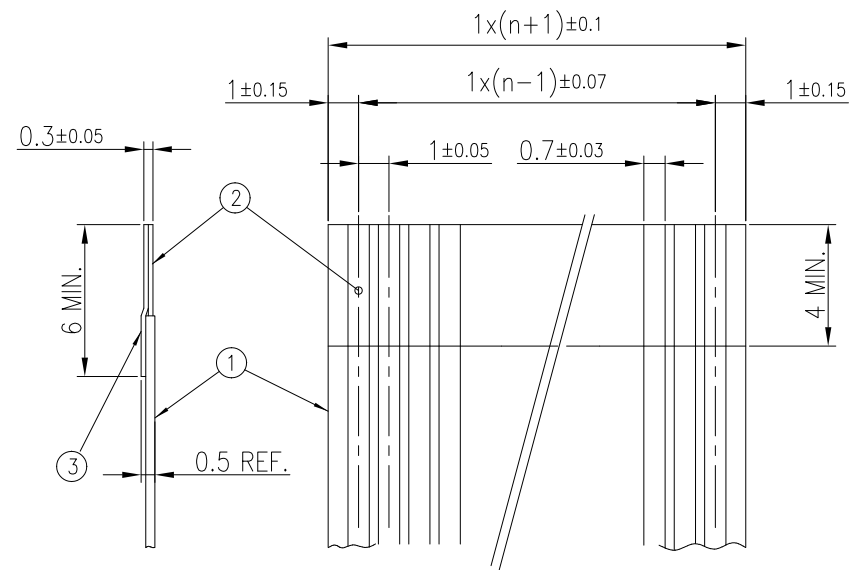
PRODUCT NUMBER	PLATING OPTION	CONTACT PLATING	TERMINAL PLATING	PRODUCT SPEC.
HFW__S-2ST__HLF	BLANK	MATTE THIN TIN PLATING	MATTE TIN : 1.3um min.	SC-HFWS03
HFW__S-4STZ__HLF	Z			SC-HFWS05
HFW__S-2STA__HLF	A	GOLD : 0.05um min.	GOLD : 0.05um min.	SC-HFWS06

mat'l. code SEE_TABLE				surface ISO 1302 ✓	tolerance ISO 406 ISO 1101	projection MM	product family 580F			
ltr	ecn	no	dr	date	tolerances unless otherwise specified		title			
A					angles linear	0.X/±0.2	1mm SPACING SMT CONNECTOR			
					0°±2'	0.XX/±0.2	(Cat. No. HFW__S-2/4ST__HLF)			
						0.XXX/±0.2	scale 3:1			
					dr	S.WATANABE	2023-12-15	dwg no		sheet 2 of 4
					enr	S.WATANABE	2023-12-15	10172412		A3
					chr	AN.MUHAMMAD-NABEEL	2023-12-15	type		PRODUCT CUSTOMER DRAWING
					appd	Y.KAMEDA	2023-12-15			
sheet index	revision sheet									



RECOMMENDED CABLE (FFC)
(NOTE1, NOTE2)

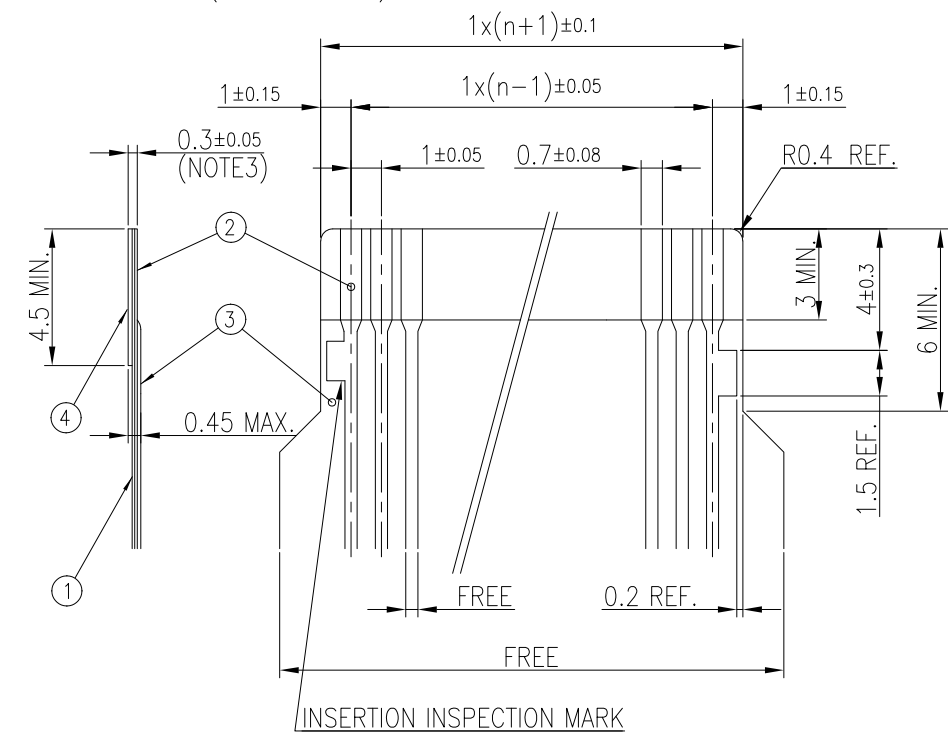
n : NO. OF CONDUCTORS



PT. NO.	DESCRIPTION	MATERIAL
1	INSULATOR	FLAME RESISTING POLYESTER OR EQUIVALENT
2	CONDUCTOR	COPPER FOIL (PLATING : TIN OR GOLD) (NOTE4)
3	SUPPORTING TAPE	FLAME RESISTING POLYESTER OR EQUIVALENT

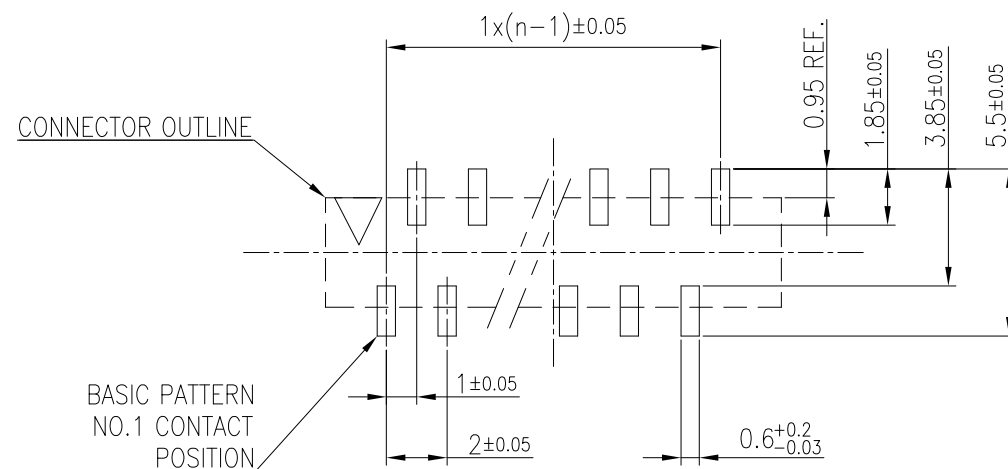
RECOMMENDED CABLE (FPC)
(NOTE1, NOTE2)

n : NO. OF CONDUCTORS



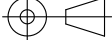
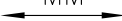
PT. NO.	DESCRIPTION	MATERIAL	THICKNESS (um)
1	BASE FILM	POLYIMIDE OR POLYESTER OR EQUIVALENT	25
2	CONDUCTOR	COPPER FOIL (PLATING : TIN OR GOLD) (NOTE4)	35
3	OVERLAY	POLYIMIDE OR POLYESTER OR EQUIVALENT	—
4	SUPPORTING TAPE	POLYESTER OR POLYIMIDE OR EQUIVALENT	188

RECOMMENDED PC BOARD LAYOUT
(COMPONENT SIDE) (NOTE5, NOTE6)



NOTES

1. NO BURR AT EACH PORTION.
2. NO PEELING IN COMMON USE.
3. TOTAL THICKNESS LIMIT OF EACH MATERIAL (INCLUDING ADHESIVE AGENT) IS SPECIFIED.
4. FINISH PLATING OF CABLE CONDUCTOR AND CONTACT SHOULD BE MATCHED.
5. RECOMMENDED STENCIL THICKNESS IS 120~150um.
6. RECOMMENDED STENCIL OPENING RATIO IS 100%.

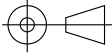
mat'l. code SEE_TABLE				surface ISO 1302 ✓		tolerance ISO 406 ISO 1101		projection 		product family 580F											
ltr	ecn	no	dr	date	tolerances unless		otherwise specified			title											
A					angles	0.X/±0.3		RECOMMENDED CABLE AND PCB													
						0.XX/±0.3		(Cat. No. HFW__S-2/4ST_E1HLF)													
					0°±2°	0.XXX/±0.3		scale 4:1													
					dr	S.WATANABE		2023-12-15		dwg no				sheet 3 of 4				size			
					engr	S.WATANABE		2023-12-15		10172412				A3							
					chr	AN.MUHAMMAD-NABEEL		2023-12-15													
					appd	Y.KAMEDA		2023-12-15													
sheet index		revision sheet																			



HFW_S SERIES PREFERRED PART NUMBERS

ROUND CONTACT / TIN PLATING

	NO. OF CONT (n)	CAT. NO.
●	4	HFW4S-4STZE1HLF
●	5	HFW5S-4STZE1HLF
●	6	HFW6S-4STZE1HLF
●	7	HFW7S-4STZE1HLF
●	8	HFW8S-4STZE1HLF
●	9	HFW9S-4STZE1HLF
●	10	HFW10S-4STZE1HLF
●	11	HFW11S-4STZE1HLF
●	12	HFW12S-4STZE1HLF
●	13	HFW13S-4STZE1HLF
●	14	HFW14S-4STZE1HLF
●	15	HFW15S-4STZE1HLF
●	16	HFW16S-4STZE1HLF
●	17	HFW17S-4STZE1HLF
●	18	HFW18S-4STZE1HLF
	19	HFW19S-4STZE1HLF
	20	HFW20S-4STZE1HLF
●	21	HFW21S-4STZE1HLF
●	22	HFW22S-4STZE1HLF
	23	HFW23S-4STZE1HLF
●	24	HFW24S-4STZE1HLF
●	25	HFW25S-4STZE1HLF
●	26	HFW26S-4STZE1HLF
●	27	HFW27S-4STZE1HLF
●	28	HFW28S-4STZE1HLF
●	29	HFW29S-4STZE1HLF
●	30	HFW30S-4STZE1HLF

mat'l. code SEE_TABLE					surface ISO 1302 ✓			tolerance ISO 406 ISO 1101			projection 			product family 580F									
ltr	ecn	no	dr	date	tolerances unless			otherwise specified			 MM scale 4:1			title RECOMMENDED CABLE AND PCB (PREFERRED PART NUMBERS LIST)									
A					angles	linear	0.X/±0.3																
							0.XX/±0.3																
					0°±2°		0.XXX/±0.3																
					dr	S.WATANABE		2023-12-15					dwg no				sheet 4 of 4				size		
					engr	S.WATANABE		2023-12-15					10172412				A3						
					chr	AN.MUHAMMAD-NABEEL		2023-12-15															
					appd	Y.KAMEDA		2023-12-15															
sheet index		revision sheet																					