

List of "HFW__R-1/2STE1HLF" customer document

DOCUMENT NO.	LIST
10089213(sheet1)	DOCUMENT LIST
10089213(sheet2)	CAT.NO.TABLE FOR 1mm SPACING SMT CONNECTOR (HFW__R-1/2ST_HLF)
10089213(sheet3)	1mm SPACING SURFACE MOUNT FPC/FFC CONNECCTOR (HFW__R-1ST_HLF)
10089213(sheet4)	1mm SPACING SURFACE MOUNT FPC/FFC CONNECCTOR (HFW__R-2ST_HLF)
10089213(sheet5)	CAT.NO.TABLE FOR PLASTIC TAPE PACKAGED 1mm SPACING SMT CONN.(HFW__R-1/2STE1HLF)
10089213(sheet6)	1mm SPACING SMT CONNECTOR (HFW__R-1STE1HLF)
10089213(sheet7)	1mm SPACING SMT CONNECTOR (HFW__R-2STE1HLF)
10089213(sheet8)	RECOMMENDED CABLE (FPC) (HFW__R-1/2__)
10089213(sheet9)	RECOMMENDED CABLE (FFC) (HFW__R-1/2__)
GS-12-563	PRODUCT SPEC.
BJM-HFWR101	HANDLING PROCEDURES

mat'l. code				surface 58/ISO 1302		tolerance ISO 406 ISO 1101		projection		product family 58NF															
ltr				ecn no		dr		date		tolerances unless otherwise specified		mm		title											
A				S08-0199		DGOH		08/06/26		angles		linear		1mm SPACING FPC/FFC CONNECTOR DOCUMENT LIST (Cat. No. : HFW__R-1/2STE1HLF)											
												scale		dwg no sheet 1 of 9 size											
														10089213 A4											
														type Product Customer Drawing											
sheet index				revision sheet		A		A		A		A		A		A		A		A		A		Rev. A	

CAT. NO. & DIMENSIONS

(NOTE3)	NO. OF CONTACTS (n)	CAT. NO.	DIMENSIONS (NOTE2)		
			A ± 0.2	B ± 0.2	C ± 0.1
	4	HFW4R-1/2ST__HLF	6.6	3	5.14
	5	HFW5R-1/2ST__HLF	7.6	4	6.14
	6	HFW6R-1/2ST__HLF	8.6	5	7.14
	7	HFW7R-1/2ST__HLF	9.6	6	8.14
	8	HFW8R-1/2ST__HLF	10.6	7	9.14
	9	HFW9R-1/2ST__HLF	11.6	8	10.14
	10	HFW10R-1/2ST__HLF	12.6	9	11.14
	11	HFW11R-1/2ST__HLF	13.6	10	12.14
	12	HFW12R-1/2ST__HLF	14.6	11	13.14
	13	HFW13R-1/2ST__HLF	15.6	12	14.14
	14	HFW14R-1/2ST__HLF	16.6	13	15.14
	15	HFW15R-1/2ST__HLF	17.6	14	16.14
	16	HFW16R-1/2ST__HLF	18.6	15	17.14
	17	HFW17R-1/2ST__HLF	19.6	16	18.14
	18	HFW18R-1/2ST__HLF	20.6	17	19.14
	19	HFW19R-1/2ST__HLF	21.6	18	20.14
	20	HFW20R-1/2ST__HLF	22.6	19	21.14
	21	HFW21R-1/2ST__HLF	23.6	20	22.14
	22	HFW22R-1/2ST__HLF	24.6	21	23.14
	23	HFW23R-1/2ST__HLF	25.6	22	24.14
	24	HFW24R-1/2ST__HLF	26.6	23	25.14
	25	HFW25R-1/2ST__HLF	27.6	24	26.14
	26	HFW26R-1/2ST__HLF	28.6	25	27.14
	27	HFW27R-1/2ST__HLF	29.6	26	28.14
*	28	HFW28R-1/2ST__HLF	30.6	27	29.14
*	29	HFW29R-1/2ST__HLF	31.6	28	30.14
	30	HFW30R-1/2ST__HLF	32.6	29	31.14

CAT. NO. HFW (n) R - 1 ST __ HLF

SERIES

NO. OF CONTACTS

RIGHT ANGLE TYPE

FOR FPC/FFC, CONTACT DIRECTION

1. LOWER CONTACT TYPE
2. UPPER CONTACT TYPE

FOR AUTOMATIC MOUNTING (SMT)

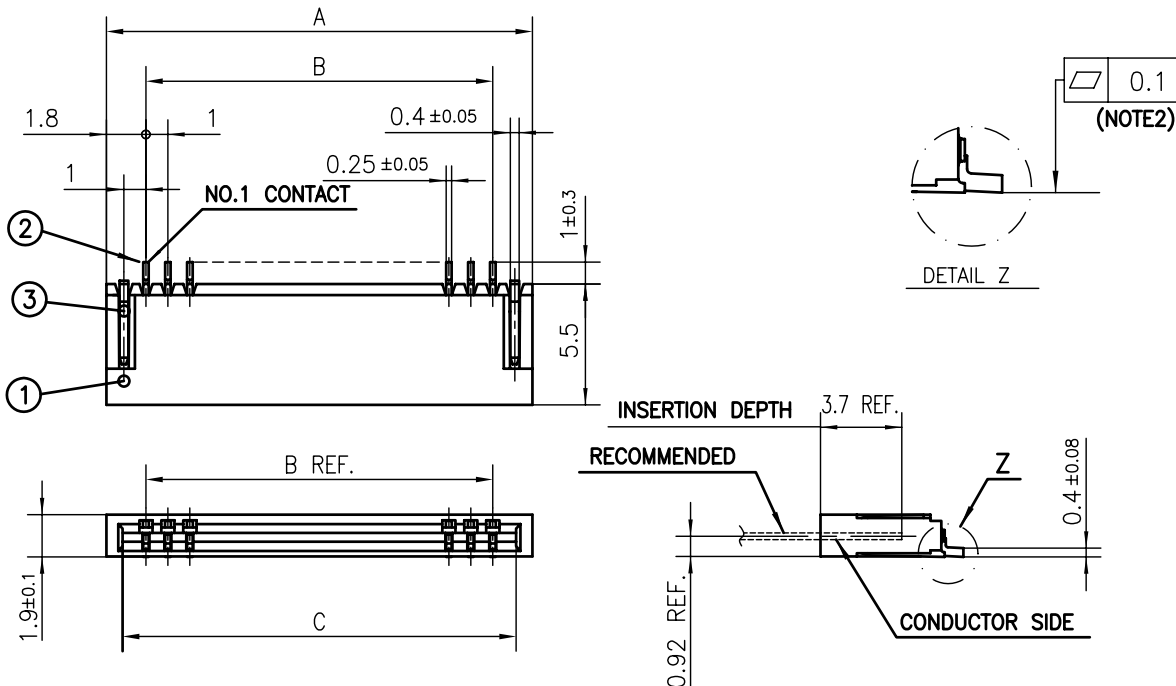
PACKAGE STYLE

HALOGEN and LEAD FREE

NOTES

- THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND CYPES WITH AUTOMATIC MOUNTING (SMT).
- SEE PART DRAWINGS FOR DIMENSIONS A~C.
- PLEASE CONSULT US IN CASE OF USING PARTS WITH * MARK.

mat'l. code				surface 58 / tolerance ISO 1302 ISO 406 ISO 1101		projection		product family 58NF				
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm		title				
A				angles	linear	scale		CAT. NO. TABLE FOR 1mm SPACING SMT CONNECTOR (Cat. No. HFW__R-1/2ST__HLF)				
				dr	H. TAKAKURA	06/10/23	FCI		dwg no		sheet 2 of 9	size
				enr	DENNIS GOH	08/06/26			10089213		A4	
				chr	DENNIS GOH	08/06/26						
				appd	JOEY NG	08/06/26						
sheet index		revision sheet										Rev. A



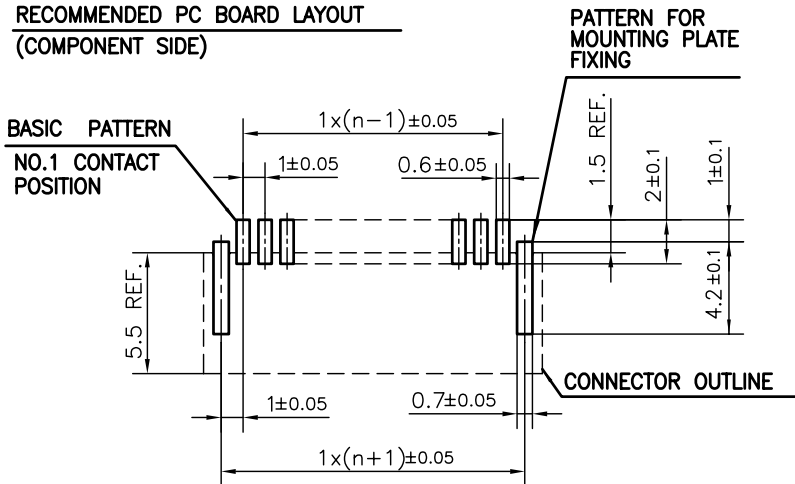
PT. NO.	PARTS NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	PA6T RESIN GLASS REINFORCED (UL94V-0)	1	COLOR:BLACK (HALOGEN FREE)
2	CONTACT	PHOSPHOR BRONZE	n	PLATING:TIN
3	MOUNTING PLATE		2	(LEAD FREE)

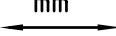
n : NO. OF CONTACTS

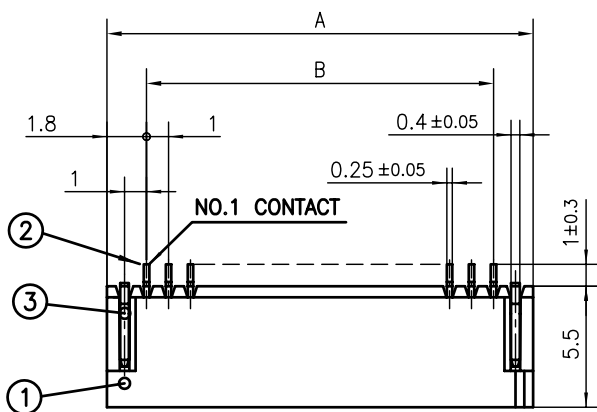
NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPS WITH AUTOMATIC MOUNTING (SMT).
2. FLATNESS OF CONTACT TERMINAL FOR HOUSING MUST BE WITHIN TOLERANCE IN Z PORTION DETAILED DRAWING.
3. THIS PRODUCT IS LOWER CONTACT TYPE CONNECTOR.
4. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008
5. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A REFLOW SOLDERING OVEN.

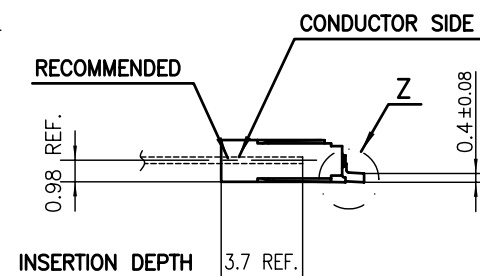
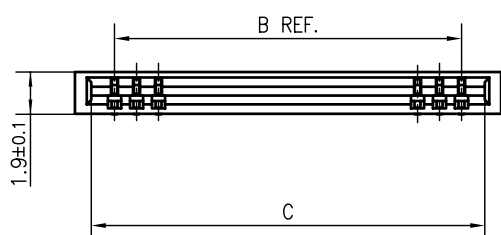
RECOMMENDED PC BOARD LAYOUT
(COMPONENT SIDE)



mat'l. code				surface 58 / tolerance ISO 1302 ✓ ISO 406 ISO 1101			projection 		product family 58NF									
ltr	ecn no	dr	date	tolerances unless otherwise specified			mm 		title 1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat.No. HFW__R-1ST__HLF)									
A				angles	linear ±0.2		scale $\propto$											
				dr	H. TAKAKURA	06/10/23			dwg no						sheet 3 of 9		size	
				engr	DENNIS GOH	08/06/26			10089213						A4			
				chr	DENNIS GOH	08/06/26												
				appd	JOEY NG	08/06/26												
sheet index		revision sheet															Rev. A	



DETAIL Z



PT. NO.	PARTS NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	PA6T RESIN GLASS REINFORCED (UL94V-0)	1	COLOR:BLACK (HALOGEN FREE)
2	CONTACT	PHOSPHOR BRONZE	n	PLATING:TIN
3	MOUNTING PLATE		2	(LEAD FREE)

n : NO. OF CONTACTS

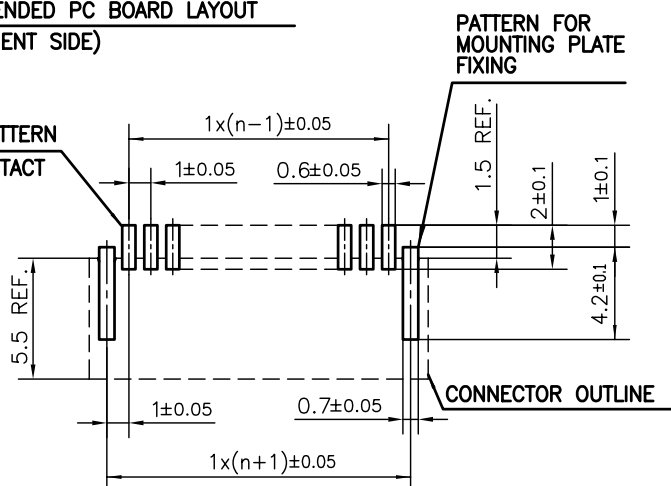
NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COTES WITH AUTOMATIC MOUNTING (SMT).
2. FLATNESS OF CONTACT TERMINAL FOR HOUSING MUST BE WITHIN TOLERANCE IN Z PORTION DETAILED DRAWING.
3. THIS PRODUCT IS UPPER CONTACT TYPE CONNECTOR.
4. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008
5. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A REFLOW SOLDERING OVEN.

RECOMMENDED PC BOARD LAYOUT
(COMPONENT SIDE)

BASIC PATTERN

NO.1 CONTACT POSITION



PATTERN FOR MOUNTING PLATE FIXING

CONNECTOR OUTLINE

mat'l. code				surface 58 / tolerance ISO 1302 / ISO 406 / ISO 1101		projection	product family 58NF			
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm	title 1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat. No. HFW__R-2ST__HLF)			
A				angles	linear ±0.2					
				dr	H. TAKAKURA	06/10/23	dwg no sheet 4 of 9 size			
				engr	DENNIS GOH	08/06/26				
				chr	DENNIS GOH	08/06/26	10089213 A4			
				appd	JOEY NG	08/06/26				
sheet index		revision sheet						type Product Customer Drawing		Rev. A

CAT. NO. & DIMENSIONS

(NOTE4)	NO. OF CONTACTS (n)	CAT. NO. (NOTE2)	DIMENSIONS (NOTE3)		
			E ± 5	F ± 0.3	G ± 0.1
	4	HFW4R-1/2STE1HLF	28.4	24	—
	5	HFW5R-1/2STE1HLF	28.4	24	—
	6	HFW6R-1/2STE1HLF	28.4	24	—
	7	HFW7R-1/2STE1HLF	28.4	24	—
	8	HFW8R-1/2STE1HLF	28.4	24	—
	9	HFW9R-1/2STE1HLF	28.4	24	—
	10	HFW10R-1/2STE1HLF	28.4	24	—
	11	HFW11R-1/2STE1HLF	28.4	24	—
	12	HFW12R-1/2STE1HLF	28.4	24	—
	13	HFW13R-1/2STE1HLF	28.4	24	—
	14	HFW14R-1/2STE1HLF	28.4	24	—
	15	HFW15R-1/2STE1HLF	36.4	32	28.4
	16	HFW16R-1/2STE1HLF	36.4	32	28.4
	17	HFW17R-1/2STE1HLF	36.4	32	28.4
	18	HFW18R-1/2STE1HLF	36.4	32	28.4
	19	HFW19R-1/2STE1HLF	48.4	44	40.4
	20	HFW20R-1/2STE1HLF	48.4	44	40.4
	21	HFW21R-1/2STE1HLF	48.4	44	40.4
	22	HFW22R-1/2STE1HLF	48.4	44	40.4
	23	HFW23R-1/2STE1HLF	48.4	44	40.4
	24	HFW24R-1/2STE1HLF	48.4	44	40.4
	25	HFW25R-1/2STE1HLF	48.4	44	40.4
	26	HFW26R-1/2STE1HLF	48.4	44	40.4
	27	HFW27R-1/2STE1HLF	48.4	44	40.4
*	28	HFW28R-1/2STE1HLF	48.4	44	40.4
*	29	HFW29R-1/2STE1HLF	48.4	44	40.4
	30	HFW30R-1/2STE1HLF	60.4	56	52.4

CAT. NO.

HFW (n) R - 1 ST E1 HLF

SERIES

NO. OF CONTACTS

RIGHT ANGLE TYPE

FOR FPC/FFC, CONTACT DIRECTION

1. LOWER CONTACT TYPE
2. UPPER CONTACT TYPE

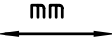
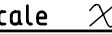
FOR AUTOMATIC MOUNTING (SMT)

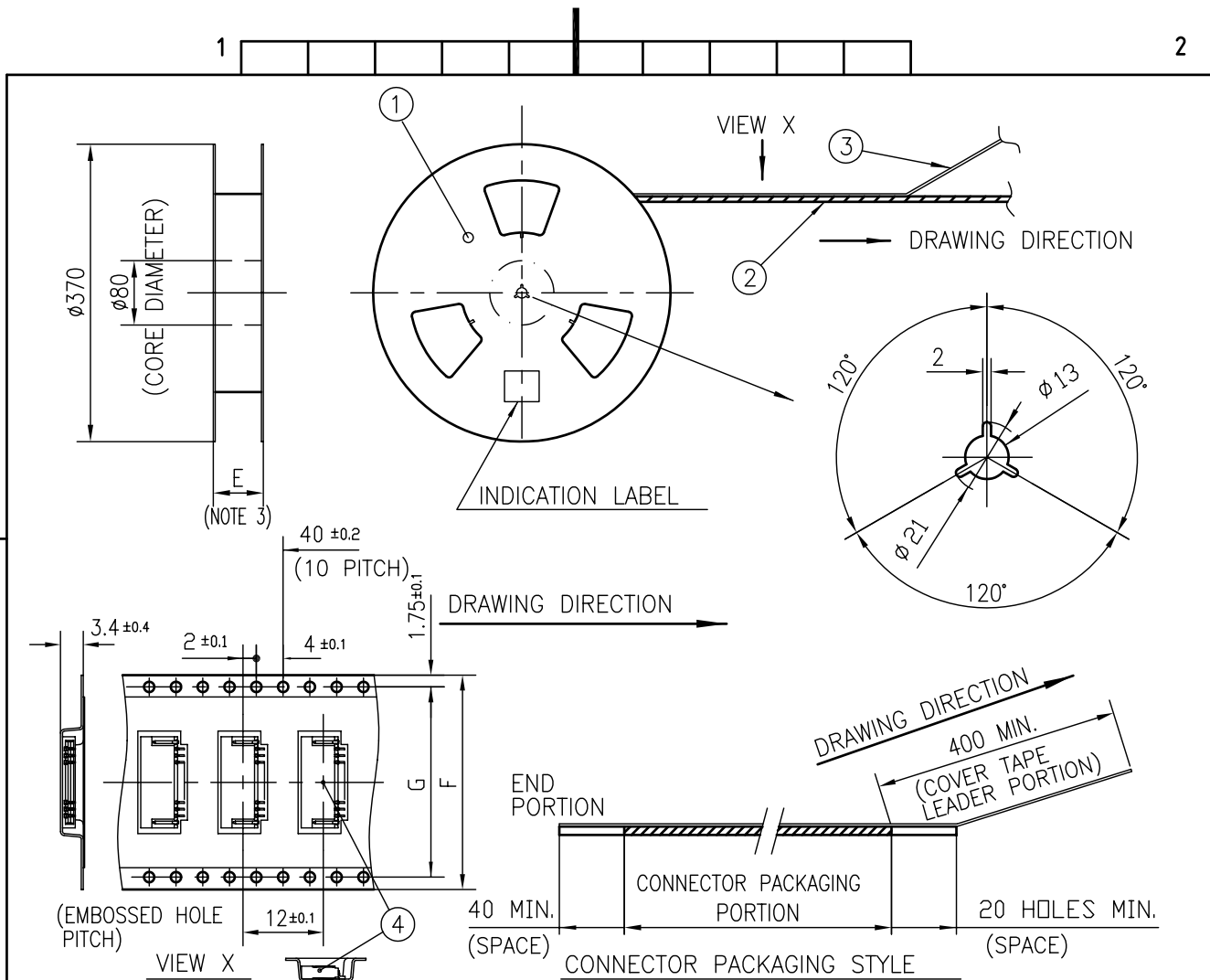
TAPE PACKAGING

HALOGEN and LEAD FREE

NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPE WITH AUTOMATIC MOUNTING (SMT).
2. THIS CATALOG NO. INDICATES PLASTIC TAPE PACKAGED CONNECTOR.
3. SEE PART DRAWINGS FOR DIMENSIONS E~G.
4. PLEASE CONSULT US IN CASE OF USING PARTS WITH * MARK.

mat'l. code				surface 58 / tolerance ISO 1302 ☒ ISO 406 / ISO 1101		projection 		product family 58NF			
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm 		title CAT. NO. TABLE FOR PLASTIC TAPE PACKAGED 1mm SPACING SMT CONN. (Cat.No. HFW__R-1/2STE1HLF)			
A				angles	linear	scale 		dwg no 10089213 sheet 5 of 9 size A4			
				dr	H. TAKAKURA	06/10/23			type Product Customer Drawing		
				enr	DENNIS GOH	08/06/26					
				chr	DENNIS GOH	08/06/26					
				appd	JOEY NG	08/06/26					
sheet index		revision sheet								Rev. A	

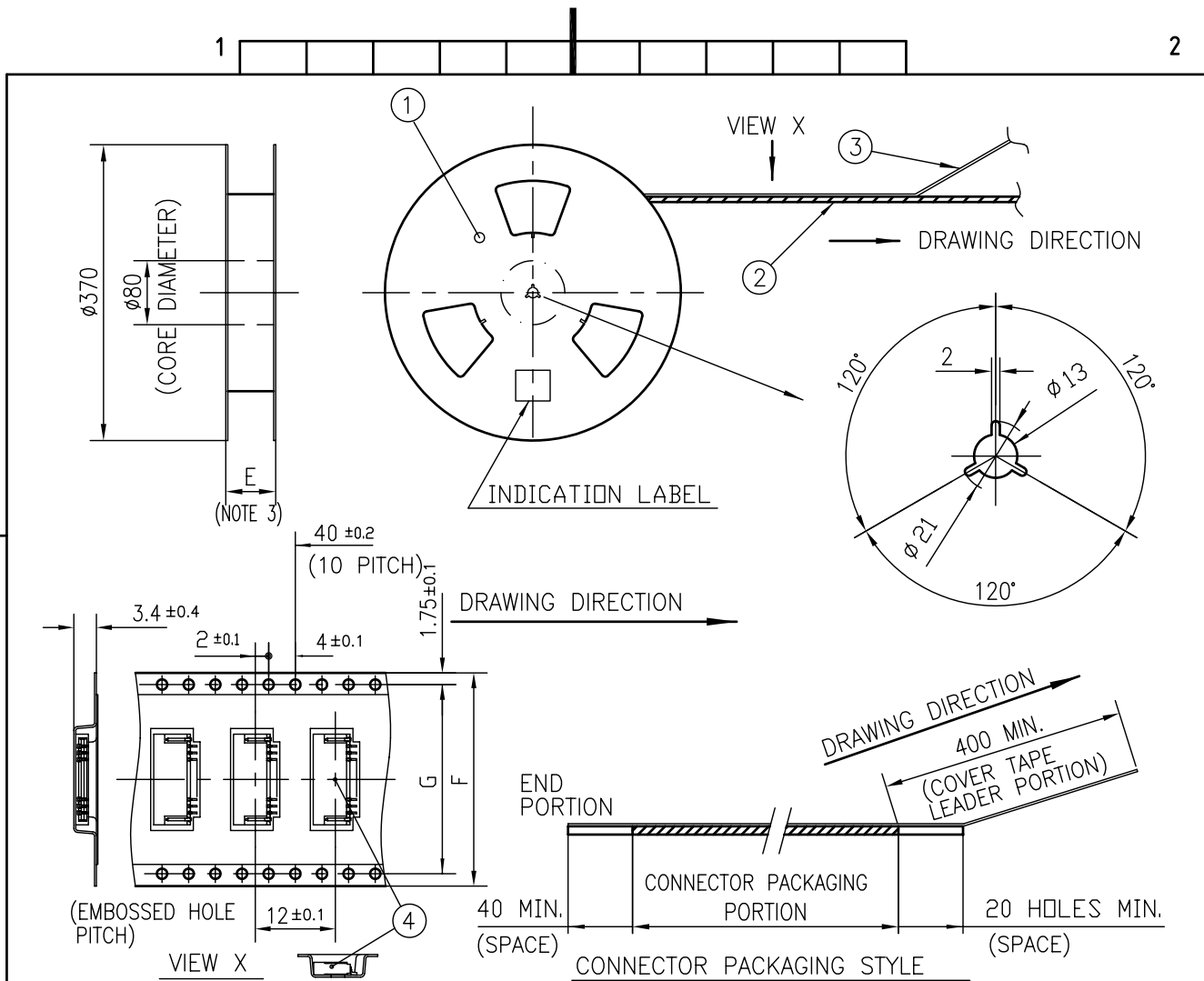


PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	Q'TY	NOTE
1	REEL	—	CARDBOARD	1	COLOR:WHITE
2	PLASTIC (EMBOSSD) TAPE	—	PET	—	COLOR:TRANSPARENCY
3	COVER	—	POLYESTER	—	COLOR:TRANSPARENCY
4	CONNECTOR	HFW__R-1ST__HLF	SEE ATTACHED DWG.	2000	LOWER CONTACT TYPE

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 (EMBOSSD) TAPE AND REEL.
- E DIMENSION IS PORTION OF THE CORE.

mat'l. code				surface 58 / tolerance ISO 1302 / ISO 406 / ISO 1101		projection		product family 58NF	
ltr				tolerances unless otherwise specified		mm		title	
ecn no				angles linear		scale		1mm SPACING SMT CONNECTOR (Cat.No. HFW__R-1STE1HLF)	
dr				±5°		F		dwg no	
date				H. TAKAKURA 06/10/23		D		sheet 6 of 9	
				engr DENNIS GOH 08/06/26		F		10089213	
				chr DENNIS GOH 08/06/26		F		A4	
				appd JOEY NG 08/06/26		F		type Product Customer Drawing	
sheet index		revision sheet						Rev. A	



PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	Q'TY	NOTE
1	REEL	_____	CARDBOARD	1	COLOR:WHITE
2	PLASTIC (EMBOSSSED) TAPE	_____	PET	_____	COLOR:TRANSPARENCY
3	COVER	_____	POLYESTER	_____	COLOR:TRANSPARENCY
4	CONNECTOR	HFV__R-2ST__HLF	SEE ATTACHED DWG.	2000	UPPER CONTACT TYPE

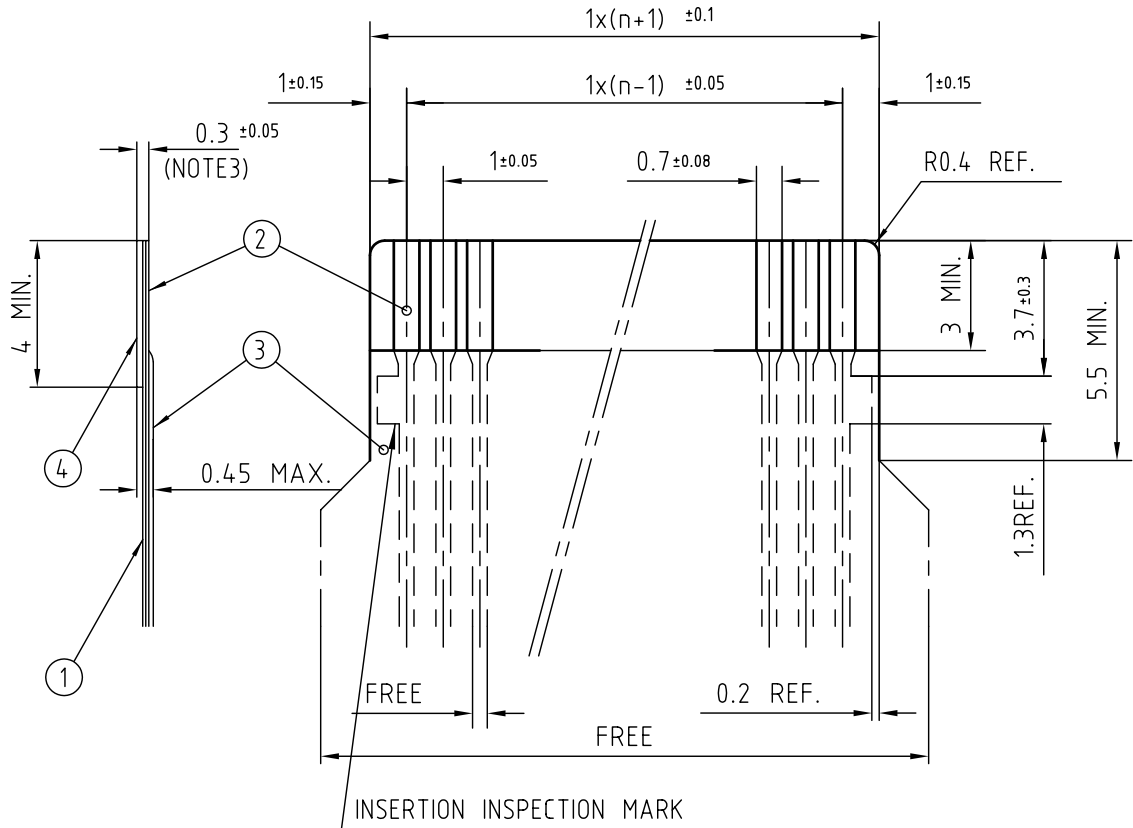
NOTES

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

mat'l. code				surface 58 ✓ ISO 1302	tolerance ISO 406 ISO 1101	projection mm	product family 58NF
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm	title 1mm SPACING SMT CONNECTOR (Cat.No. HFV__R-2STE1HLF)
A				angles ±5°	linear ±5	scale	
				dr	H. TAKAKURA	06/10/23	dwg no
				enr	DENNIS GOH	08/06/26	sheet 7 of 9
				chr	DENNIS GOH	08/06/26	size A4
				appd	JOEY NG	08/06/26	type Product Customer Drawing
sheet index	revision sheet						Rev. A

RECOMMENDED CABLE (FPC)

n : NO. OF CONDUCTORS



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

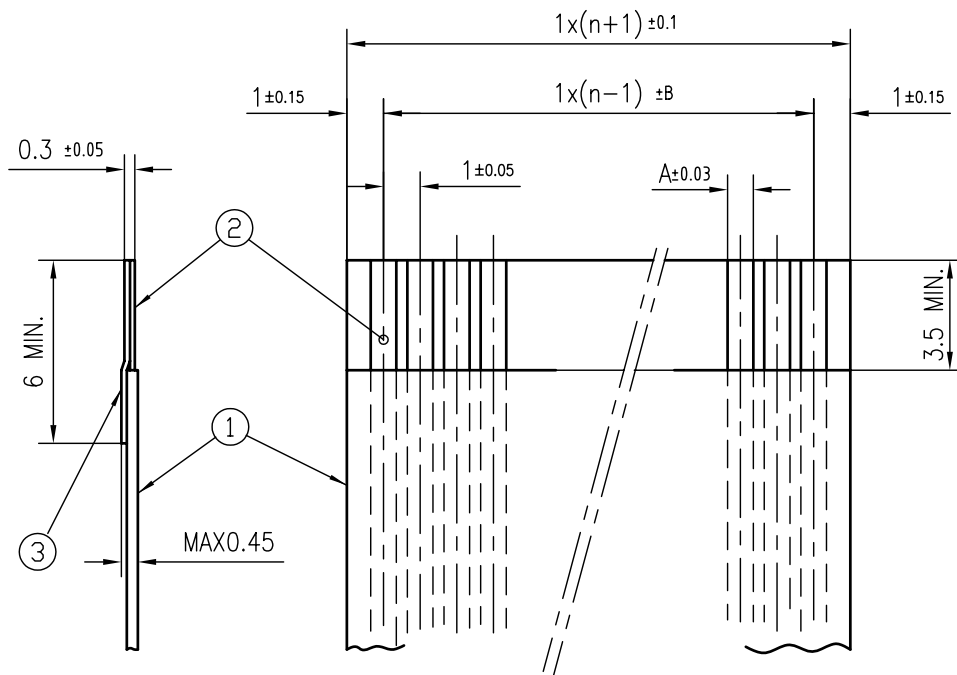
NOTES

1. NO BURR AT EACH PORTION.
2. NO PEELING IN COMMON USE.
3. TOTAL THICKNESS LIMIT OF EACH MATERIAL (INCLUDING ADHESIVE AGENT) IS SPECIFIED.

mat'l. code				surface 58 / tolerance ISO 1302 406 1101		projection		product family 58NF		CODE JP	
ltr A				tolerances unless otherwise specified		mm		title			
ecn no				angles linear		scale		RECOMMENDED CABLE			
dr				dr H. TAKAKURA 06/10/04		FCI		(Cat. No. HFW__R-1/2__)			
date				enr DENNIS GOH 08/06/26				dwg no sheet 8 of 9 size			
				chr DENNIS GOH 08/06/26				10089213 A4			
				appd JOEY NG 08/06/26				type Product Customer Drawing			
sheet index		revision sheet								Rev. A	

RECOMMENDED CABLE (FFC)

n : NO. OF CONDUCTORS



(NOTE 3)	DIMENSION A	TOLERANCE B
1	0.7	0.1
2	0.6	0.07

PT. NO.	DESCRIPTION	MATERIAL	NOTE
1	INSULATOR	FLAME RESISTING POLYESTER OR EQUIVALENT	_____
2	CONDUCTOR	COPPER FOIL	PLATING: TIN OR SOLDER 1μm MIN.
3	SUPPORTING TAPE	FLAME RESISTING POLYESTER OR EQUIVALENT	_____

NOTES

1. NO BURR AT EACH PORTION.
2. NO PEELING IN COMMON USE.
3. BOTH COMBINATION IS ALLOWED.

mat'l. code				surface 58 / tolerance ISO 1302 ✓ ISO 406 ISO 1101		projection		product family 58NF			
ltr				ecn no		dr		date		title	
A										RECOMMENDED CABLE (Cat. No. HFW__R-1/2__)	
				angles		linear		mm		scale	
										dwg no	
				dr		H. TAKAKURA		06/10/04		sheet 9 of 9	
				enr		DENNIS GOH		08/06/26		10089213	
				chr		DENNIS GOH		08/06/26		A4	
				appd		JOEY NG		08/06/26		type Product Customer Drawing	
sheet index		revision sheet								Rev. A	