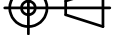



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DOCUMENT NO.	LIST
10089213(sheet1)	DOCUMENT LIST
10089213(sheet2)	CAT.NO.TABLE FOR 1mm SPACING SMT CONNECTOR (HFW__R-1/2ST_HLF)
10089213(sheet3)	1mm SPACING SURFACE MOUNT FPC/FFC CONNECCTOR (HFW__R-1ST_HLF)
10089213(sheet4)	1mm SPACING SURFACE MOUNT 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 ✓ tolerance ISO 406 ISO 1101				projection		product family 58NF															
litr ecn no dr date				tolerances unless otherwise specified						title 1mm SPACING FPC/FFC CONNECTOR DOCUMENT LIST (Cat. No. : HFW__R-1/2STE1HLF)															
A S08-0199 DGOH 08/06/26				angles linear																					
								mm																	
								scale ∞																	
				dr		H. TAKAKURA		06/10/23				dwg no						sheet 1 of 9		size					
				enrg		DENNIS GOH		08/06/26				10089213						A4							
				chr		DENNIS GOH		08/06/26																	
				appd		JOEY NG		08/06/26																	
sheet index		revision sheet		A 1		A 2		A 3		A 4		A 5		A 6		A 7		A 8		A 9				Rev. A	

## CAT. NO. &amp; 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)

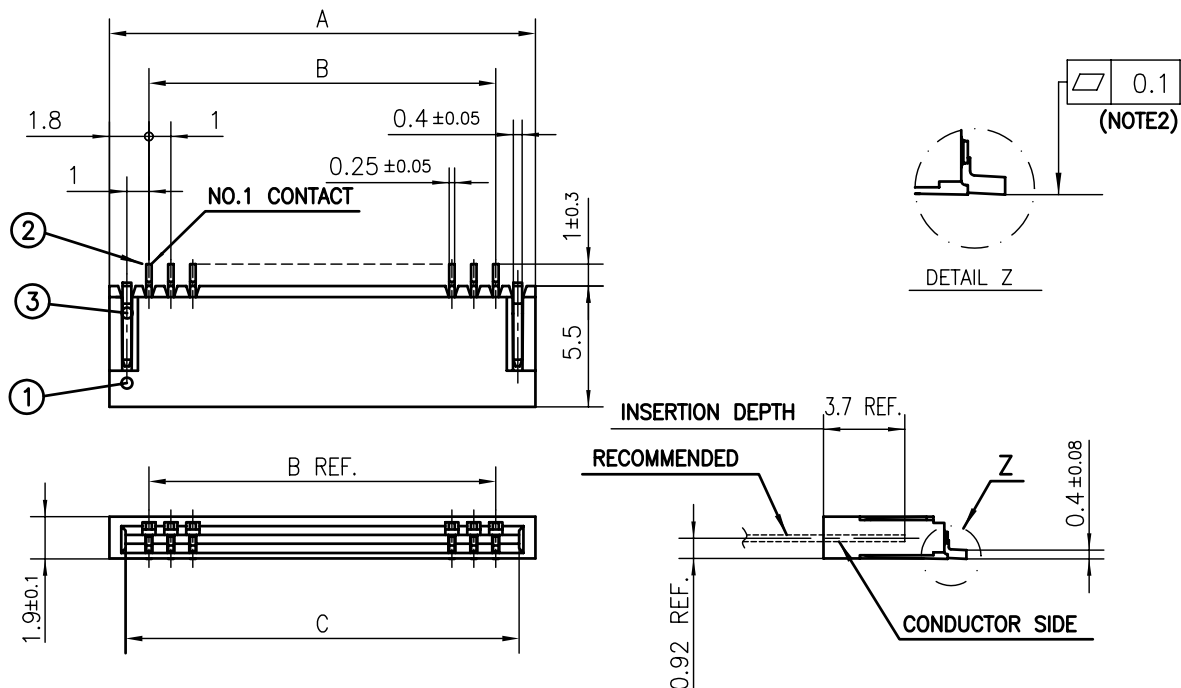
PACKAGE STYLE

HALOGEN and LEAD FREE

## NOTES

- THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPE 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)

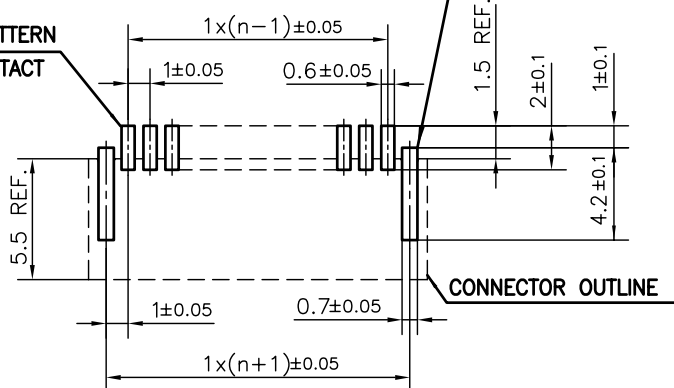
n : NO. OF CONTACTS

#### NOTES

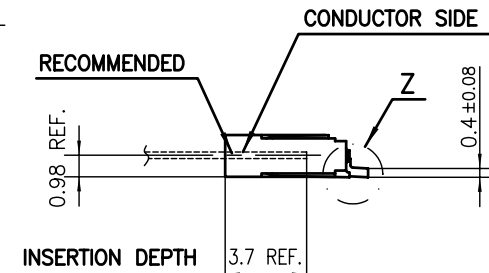
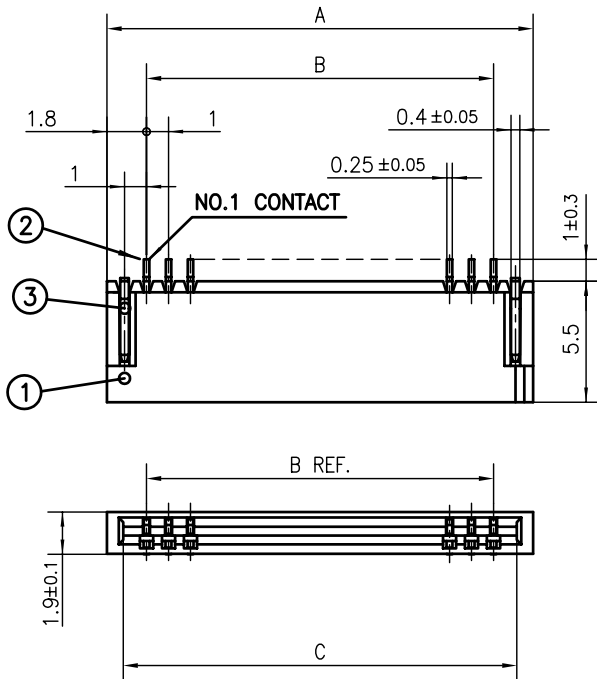
1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPS WITH AUTOMATIC MOUNTING (SMT).
2. FLATNESS OF CONTACT TERMINAL FOR HOUSING MUST BE WITHIN TOLERANCE IN Z PORTION DETAILED DRAWING.
3. THIS PRODUCT IS LOWER CONTACT TYPE CONNECTOR.
4. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND 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)

#### BASIC PATTERN NO.1 CONTACT POSITION



mat'l. code				surface 58 / tolerance ISO 1302	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					
				dr H. TAKAKURA 06/10/23	scale	dwg no 10089213 sheet 3 of 9 size A4			
				engr DENNIS GOH 08/06/26					
				chr DENNIS GOH 08/06/26					
				appd JOEY NG 08/06/26					
sheet index	revision sheet					type Product Customer Drawing			
						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

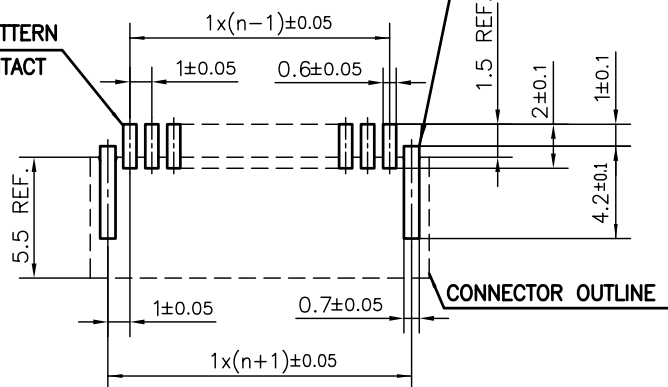
#### NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES 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					title 1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat. No. HFW__R-2ST__HLF)									
A				angles	linear	±0.2	mm 											
							scale 		dwg no sheet 4 of 9 size 10089213 A4									
				dr	H. TAKAKURA	06/10/23												
				engr	DENNIS GOH	08/06/26												
				chr	DENNIS GOH	08/06/26												
				appd	JOEY NG	08/06/26			type Product Customer Drawing									
sheet index	revision sheet																Rev. A	

## CAT. NO. &amp; 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


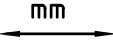
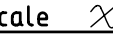

FOR AUTOMATIC MOUNTING (SMT)

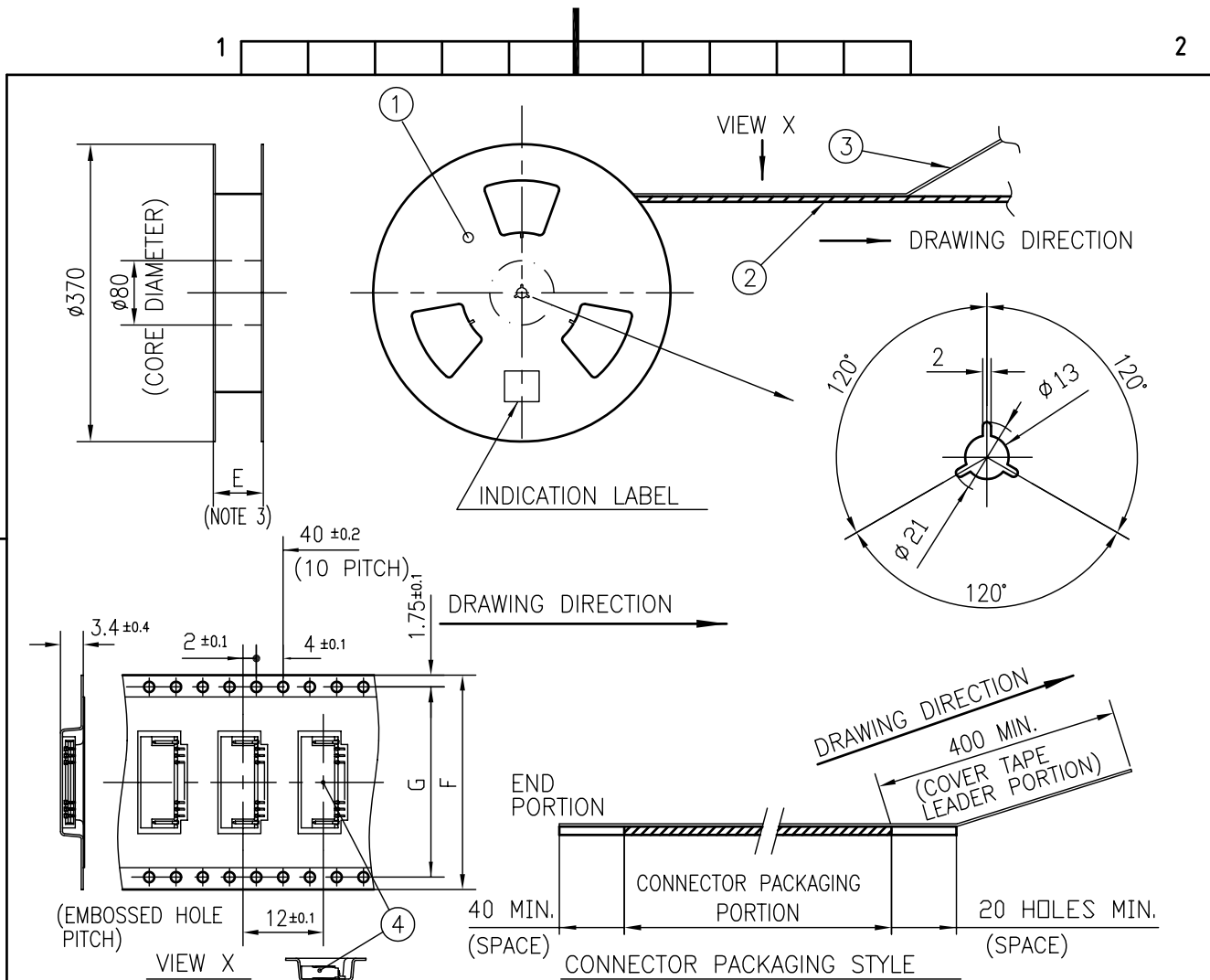
TAPE PACKAGING

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 <input checked="" type="checkbox"/> ISO 406 <input checked="" type="checkbox"/> 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	

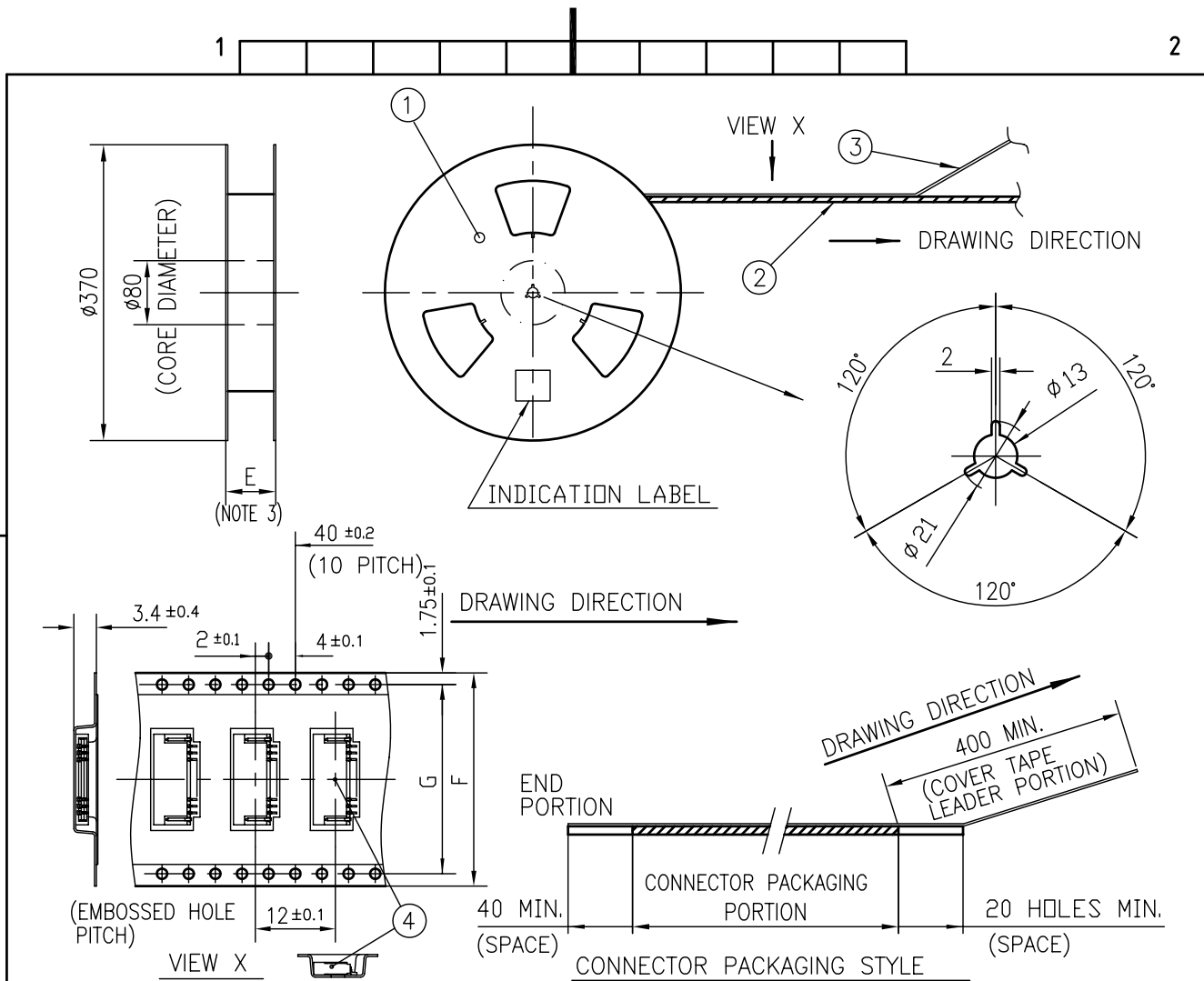


PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	Q'TY	NOTE
1	REEL	_____	CARDBOARD	1	COLOR:WHITE
2	PLASTIC (EMBOSSD) TAPE	_____	PET	_____	COLOR:TRANSPARENCY
3	COVER	_____	POLYESTER	_____	COLOR:TRANSPARENCY
4	CONNECTOR	HFW__R-1ST__HLF	SEE ATTACHED DWG.	2000	LOWER CONTACT TYPE

#### 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				ecn no		dr		date		title	
A										1mm SPACING SMT CONNECTOR (Cat.No. HFW__R-1STE1HLF)	
				angles		linear		mm		scale	
				±5°							
				dr		H. TAKAKURA		06/10/23		dwg no	
				engr		DENNIS GOH		08/06/26		sheet 6 of 9	
				chr		DENNIS GOH		08/06/26		10089213	
				appd		JOEY NG		08/06/26		size A4	
sheet index				revision sheet						type Product Customer Drawing	
D										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

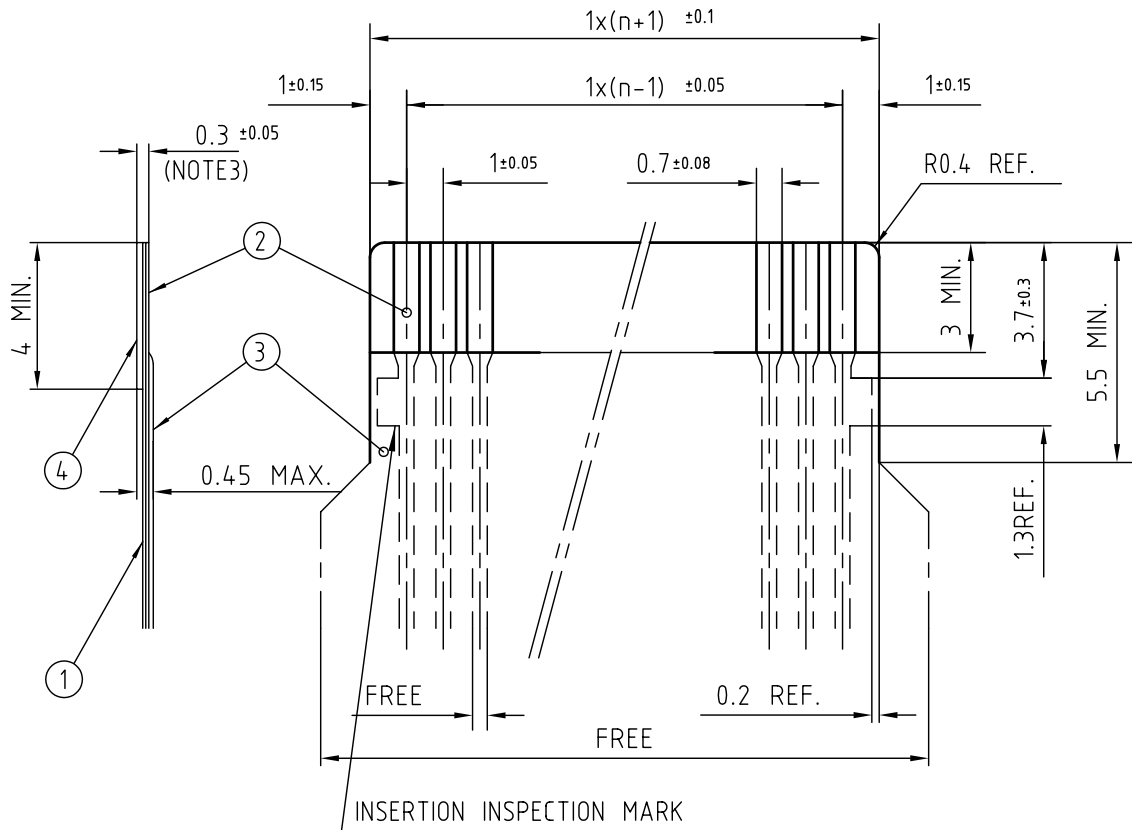
#### NOTES

- 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 (EMBOSSSED) 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					title 1mm SPACING SMT CONNECTOR (Cat.No. HFW__R-2STE1HLF)															
ecn no				dr															date					
A				angles			linear			mm		dwg no sheet 7 of 9 size 10089213 A4												
				±5°						scale ∞														
				dr			H. TAKAKURA			06/10/23					type Product Customer Drawing									
				engr			DENNIS GOH			08/06/26														
				chr			DENNIS GOH			08/06/26														
				appd			JOEY NG			08/06/26														
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

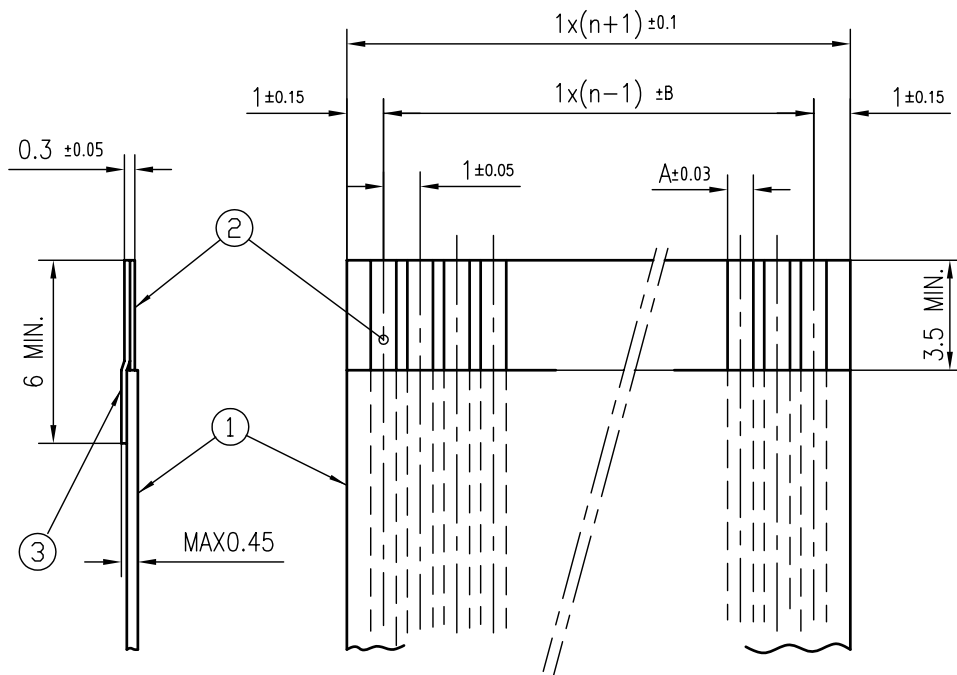
1. NO BURR AT EACH PORTION.
2. NO PEELING IN COMMON USE.
3. TOTAL THICKNESS LIMIT OF EACH MATERIAL (INCLUDING ADHESIVE AGENT) IS SPECIFIED.

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

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## [FCI / Amphenol:](#)

[HFW17R-1STE1H1LF](#) [HFW4R-2STE5H1LF](#) [HFW7R-1STE1H1LF](#) [HFW9R-2STE1H1LF](#) [HFW20R-2STE1H1LF](#)  
[HFW6R-1STE1H1LF](#) [HFW24R-2STE1H1LF](#) [HFW17R-2STE1H1LF](#) [HFW18R-1STE1H1LF](#) [HFW13R-1STE1H1LF](#)  
[HFW14R-2STE1H1LF](#) [HFW11R-2STE1H1LF](#) [HFW13R-2STE1H1LF](#) [HFW22R-2STE1H1LF](#) [HFW9R-1STE1H1LF](#)  
[HFW8R-2STAHE1H1LF](#) [HFW15R-1STE1H1LF](#) [HFW11R-1STE1H1LF](#) [HFW16R-2STE1H1LF](#) [HFW6R-2STE1H1LF](#)  
[HFW7R-2STE1H1LF](#) [HFW14R-1STE1H1LF](#) [HFW18R-2STE1H1LF](#) [HFW8R-1STE1H1LF](#) [HFW10R-2STE1H1LF](#)  
[HFW16R-1STE1H1LF](#) [HFW10R-1STE1H1LF](#) [HFW8R-2STE1H1LF](#) [HFW5R-2STE1H1LF](#) [HFW12R-1STE1H1LF](#)  
[HFW4R-2STE1H1LF](#) [HFW5R-1STE1H1LF](#) [HFW24R-1STE1H1LF](#)