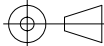


FCI CONFIDENTIAL

List of "HFW__R-1/2STE9LF" customer document

DOCUMENT NO.	LIST
10101162(SHEET1)	DOCUMENT LIST
10101162(SHEET2)	CAT.NO.TABLE FOR 1mm SPACING SMT CONNECTOR (HFW__R-1/2ST__LF)
10101162(SHEET3)	1mm SPACING SMT CONNECTOR (HFW__R-1ST_LF)
10101162(SHEET4)	1mm SPACING SMT CONNECTOR (HFW__R-2ST_LF)
10101162(SHEET5)	CAT.NO.TABLE FOR PLASTIC TAPE PACKAGED 1mm SPACING SMT CONNECTOR (HFW__R-1/2STE9LF)
10101162(SHEET6)	PLASTIC TAPE PACKAGED 1mm SPACING SMT CONNECTOR (HFW__R-1STE9LF)
10101162(SHEET7)	PLASTIC TAPE PACKAGED 1mm SPACING SMT CONNECTOR (HFW__R-2STE9LF)
10101162(SHEET8)	RECOMMENDED CABLE (FPC) (HFW__R-1/2ST__)
10101162(SHEET9)	RECOMMENDED CABLE (FFC) (HFW__R-1/2ST__)
SC-HFWR02	PRODUCT SPECIFICATION
BJM HFWR101	HANDLING PROCEDURES

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mat'l. code				surface ISO 1302 ☒				tolerance ISO 406 ISO 1101				projection 				product family 58NF				CODE JP											
ltr		ecn no		dr		date		tolerances unless otherwise specified								title															
A		S09-0139		DGOH		09-05-06		angles				linear				mm				1mm SPACING SMT CONNECTOR DOCUMENT LIST (Cat. No. : HFW__R-1/2STE9LF)											
																scale $\propto$															
								dr				DENNIS GOH				09-05-06				dwg no				sheet 1 of 9				size			
								enr				DENNIS GOH				09-05-06				10101162				A4							
								chr				DENNIS GOH				09-05-06															
								appd				JOEY NG				09-05-06				type				Product Customer Drawing							
sheet index		revision sheet		A		A		A		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__LF	6.6	3	5.14
	5	HFW5R-1/2ST__LF	7.6	4	6.14
	6	HFW6R-1/2ST__LF	8.6	5	7.14
	7	HFW7R-1/2ST__LF	9.6	6	8.14
	8	HFW8R-1/2ST__LF	10.6	7	9.14
	9	HFW9R-1/2ST__LF	11.6	8	10.14
	10	HFW10R-1/2ST__LF	12.6	9	11.14
	11	HFW11R-1/2ST__LF	13.6	10	12.14
	12	HFW12R-1/2ST__LF	14.6	11	13.14
	13	HFW13R-1/2ST__LF	15.6	12	14.14
	14	HFW14R-1/2ST__LF	16.6	13	15.14
	15	HFW15R-1/2ST__LF	17.6	14	16.14
	16	HFW16R-1/2ST__LF	18.6	15	17.14
	17	HFW17R-1/2ST__LF	19.6	16	18.14
	18	HFW18R-1/2ST__LF	20.6	17	19.14
	19	HFW19R-1/2ST__LF	21.6	18	20.14
	20	HFW20R-1/2ST__LF	22.6	19	21.14
	21	HFW21R-1/2ST__LF	23.6	20	22.14
	22	HFW22R-1/2ST__LF	24.6	21	23.14
	23	HFW23R-1/2ST__LF	25.6	22	24.14
	24	HFW24R-1/2ST__LF	26.6	23	25.14
	25	HFW25R-1/2ST__LF	27.6	24	26.14
	26	HFW26R-1/2ST__LF	28.6	25	27.14
	27	HFW27R-1/2ST__LF	29.6	26	28.14
*	28	HFW28R-1/2ST__LF	30.6	27	29.14
*	29	HFW29R-1/2ST__LF	31.6	28	30.14
	30	HFW30R-1/2ST__LF	32.6	29	31.14

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

SERIES

NO. OF CONTACTS

RIGHT ANGLE TYPE

FOR FPC/FFC, CONTACT DIRECTION

1. LOWER CONTACT TYPE
2. UPPER CONTACT TYPE

FOR AUTOMATIC MOUNTING (SMT)

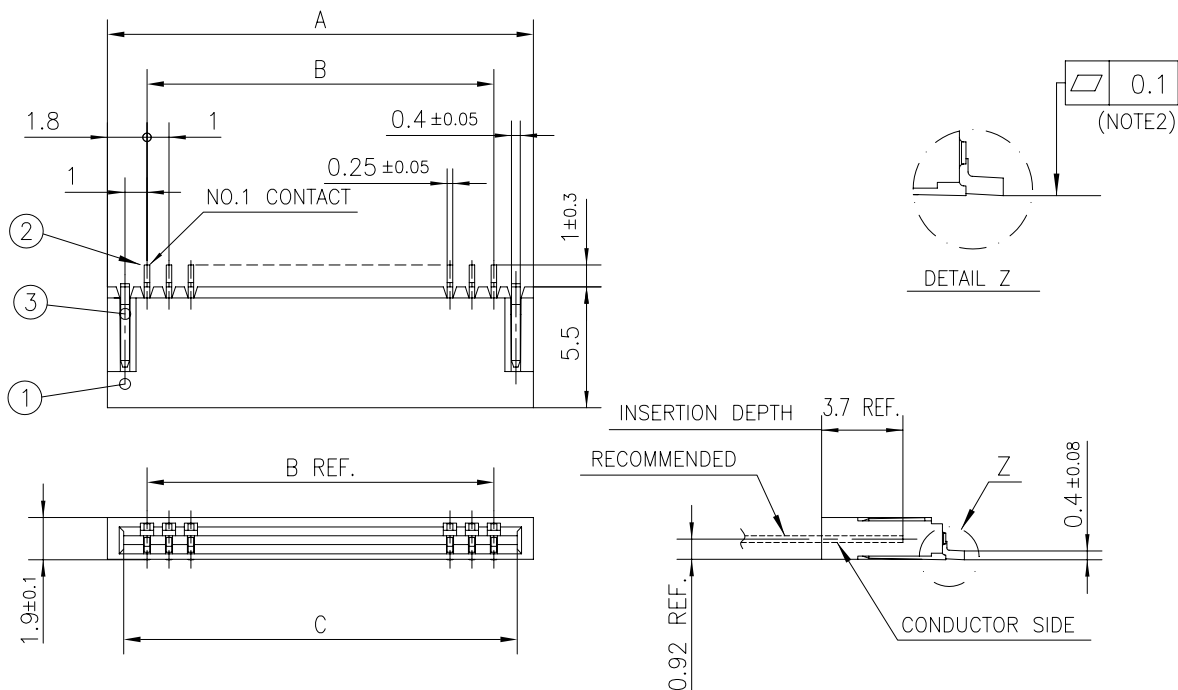
PACKAGE STYLE

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/ISO 1302		tolerance ISO 406 ISO 1101		projection		product family 58NF		CODE JP	
ltr	ecn no	dr	date	tolerances unless otherwise specified		angles linear		mm		title			
A								scale		CAT. NO. TABLE FOR 1mm SPACING SMT CONNECTOR (Cat. No. HFW__R-1/2ST__LF)			
				dr	DENNIS GOH	09-05-06			dwg no		sheet 2 of 9	size	
				engr	DENNIS GOH	09-05-06			10101162		A4		
				chr	DENNIS GOH	09-05-06							
				appd	JOEY NG	09-05-06							
sheet index		revision sheet										Rev. A	



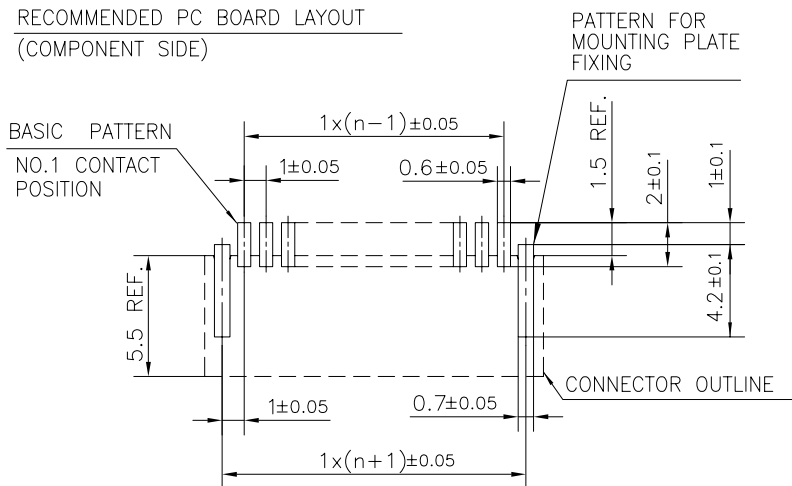
PT. NO.	PARTS NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	PA6T RESIN GLASS REINFORCED (UL94V-0)	1	COLOR:BLACK
2	CONTACT	PHOSPHOR BRONZE	n	PLATING:TIN
3	MOUNTING PLATE		2	(LEAD FREE)

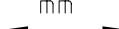
n : NO. OF CONTACTS

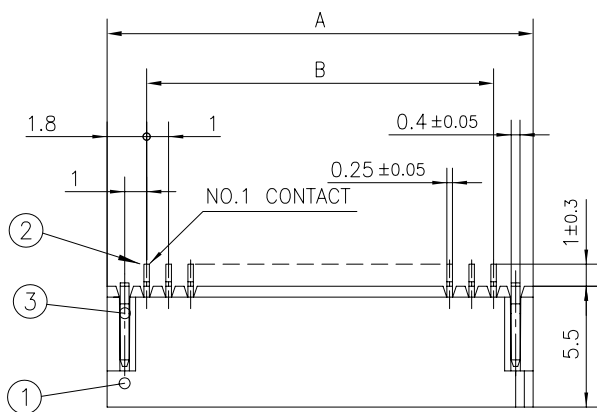
NOTES

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.

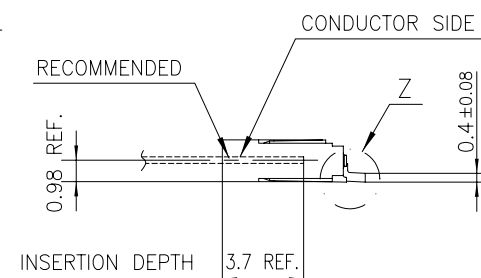
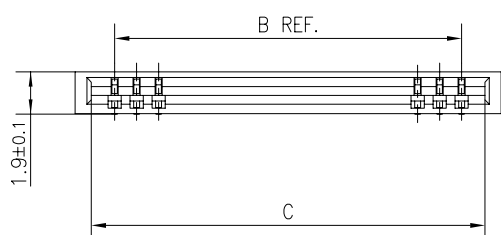
RECOMMENDED PC BOARD LAYOUT (COMPONENT SIDE)



mat'l. code				surface 58 / tolerance ISO 1302 ISO 406 ISO 1101			projection 	product family 58NF				CODE JP					
ltr	ecn no	dr	date	tolerances unless otherwise specified					title 1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat.No. HFW__R-1ST__LF)								
A				angles	linear	±0.2	scale 										
								dwg no				sheet 3 of 9		size			
				dr	DENNIS GOH	09-05-06		10101162				A4					
				engr	DENNIS GOH	09-05-06											
				chr	DENNIS GOH	09-05-06											
				appd	JOEY NG	09-05-06											
sheet index		revision sheet															Rev. A

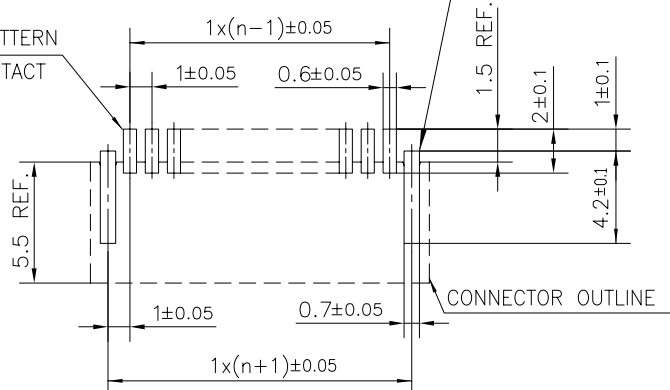


DETAIL Z



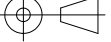
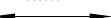
PT. NO.	PARTS NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	PA6T RESIN GLASS REINFORCED (UL94V-0)	1	COLOR:BLACK
2	CONTACT	PHOSPHOR BRONZE	n	PLATING:TIN
3	MOUNTING PLATE		2	(LEAD FREE)

n : NO. OF CONTACTS

RECOMMENDED PC BOARD LAYOUT
(COMPONENT SIDE)BASIC PATTERN
NO.1 CONTACT
POSITIONPATTERN FOR
MOUNTING PLATE
FIXING

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.

mat'l. code				surface 58 / tolerance ISO 1302			ISO 406 / ISO 1101			projection			product family 58NF						CODE JP			
ltr	ecn no	dr	date	tolerances unless otherwise specified									title									
A				angles		linear	±0.2					1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat. No. HFW__R-2ST__LF)										
									scale													
				dr	DENNIS GOH		09-05-06					dwg no						sheet 4 of 9		size		
				engr	DENNIS GOH		09-05-06					10101162						A4				
				chr	DENNIS GOH		09-05-06															
				appd	JOEY NG		09-05-06															
sheet index		revision sheet																	Rev. A			

CAT. NO. & DIMENSIONS

(NOTE4)	NO. OF CONTACTS (n)	CAT. NO. (NOTE2)	DIMENSIONS (NOTE3)		
			E MAX.	F ± 0.3	G ± 0.1
	4	HFW4R-1/2STE9LF	30.4	24	—
	5	HFW5R-1/2STE9LF	30.4	24	—
	6	HFW6R-1/2STE9LF	30.4	24	—
	7	HFW7R-1/2STE9LF	30.4	24	—
	8	HFW8R-1/2STE9LF	30.4	24	—
	9	HFW9R-1/2STE9LF	30.4	24	—
	10	HFW10R-1/2STE9LF	30.4	24	—
	11	HFW11R-1/2STE9LF	30.4	24	—
	12	HFW12R-1/2STE5LF	30.4	24	—
	13	HFW13R-1/2STE9LF	30.4	24	—
	14	HFW14R-1/2STE9LF	30.4	24	—
	15	HFW15R-1/2STE9LF	38.4	32	28.4
	16	HFW16R-1/2STE9LF	38.4	32	28.4
	17	HFW17R-1/2STE9LF	38.4	32	28.4
	18	HFW18R-1/2STE9LF	38.4	32	28.4
	19	HFW19R-1/2STE9LF	50.4	44	40.4
	20	HFW20R-1/2STE9LF	50.4	44	40.4
	21	HFW21R-1/2STE9LF	50.4	44	40.4
	22	HFW22R-1/2STE9LF	50.4	44	40.4
	23	HFW23R-1/2STE9LF	50.4	44	40.4
	24	HFW24R-1/2STE9LF	50.4	44	40.4
	25	HFW25R-1/2STE9LF	50.4	44	40.4
	26	HFW26R-1/2STE9LF	50.4	44	40.4
	27	HFW27R-1/2STE9LF	50.4	44	40.4
*	28	HFW28R-1/2STE9LF	50.4	44	40.4
*	29	HFW29R-1/2STE9LF	50.4	44	40.4

CAT. NO.

HFW (n) R - 1 ST E9 LF

SERIES

NO. OF CONTACTS

RIGHT ANGLE TYPE

FOR FPC/FFC, CONTACT DIRECTION

1. LOWER CONTACT TYPE
2. UPPER CONTACT TYPE

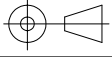
FOR AUTOMATIC MOUNTING (SMT)

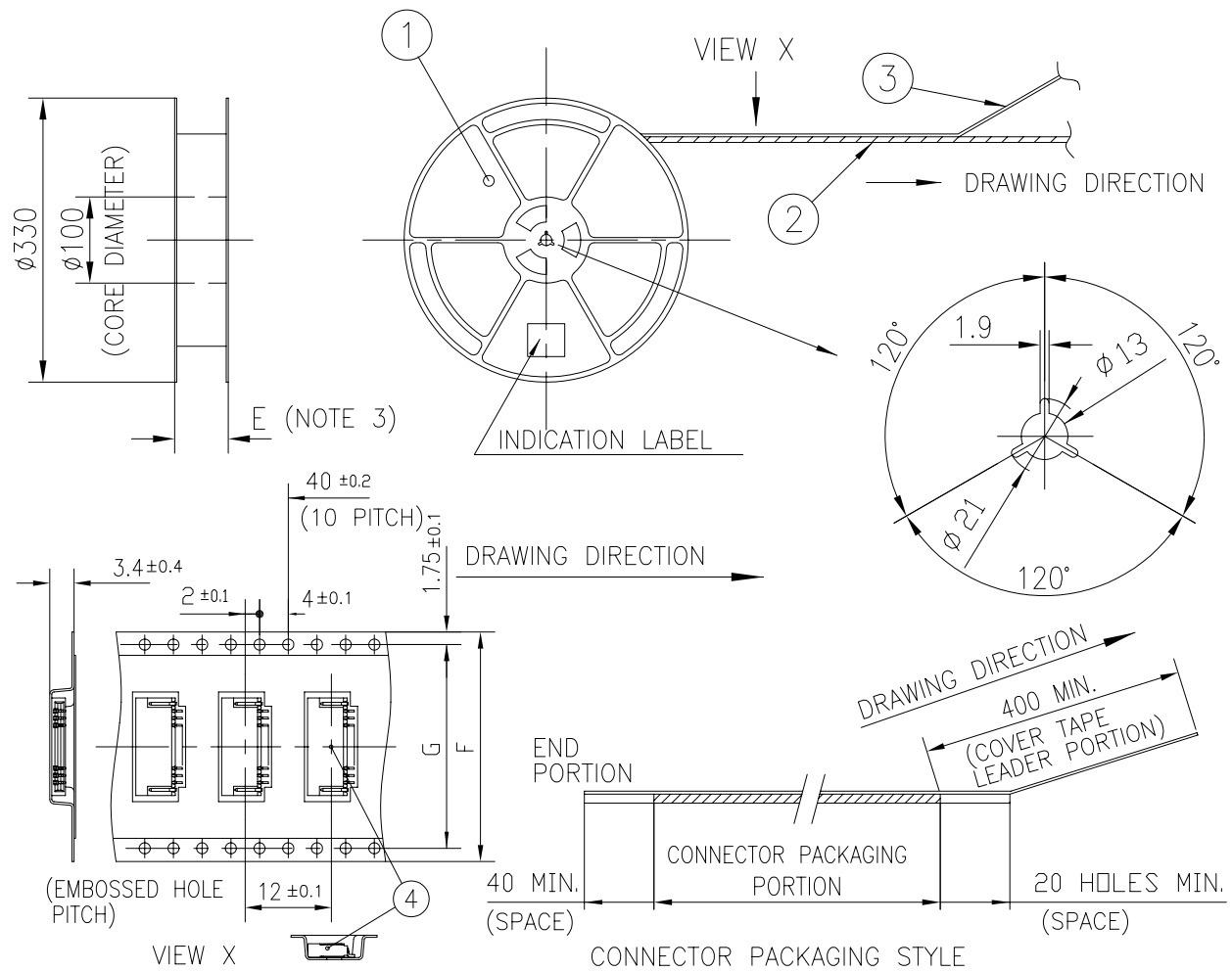
TAPE PACKAGING FOR E9 (500pcs PER REEL)

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/ISO 1302		tolerance ISO 406 ISO 1101		projection		product family 58NF		CODE JP		
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-1/2STE9LF)				
A				angles linear										
				dr	DENNIS GOH	09-05-06			dwg no		sheet 5 of 9		size A4	
				enr	DENNIS GOH	09-05-06			10101162					
				chr	DENNIS GOH	09-05-06			type		Product Customer Drawing			
				appd	JOEY NG	09-05-06								
sheet index		revision sheet										Rev. A		

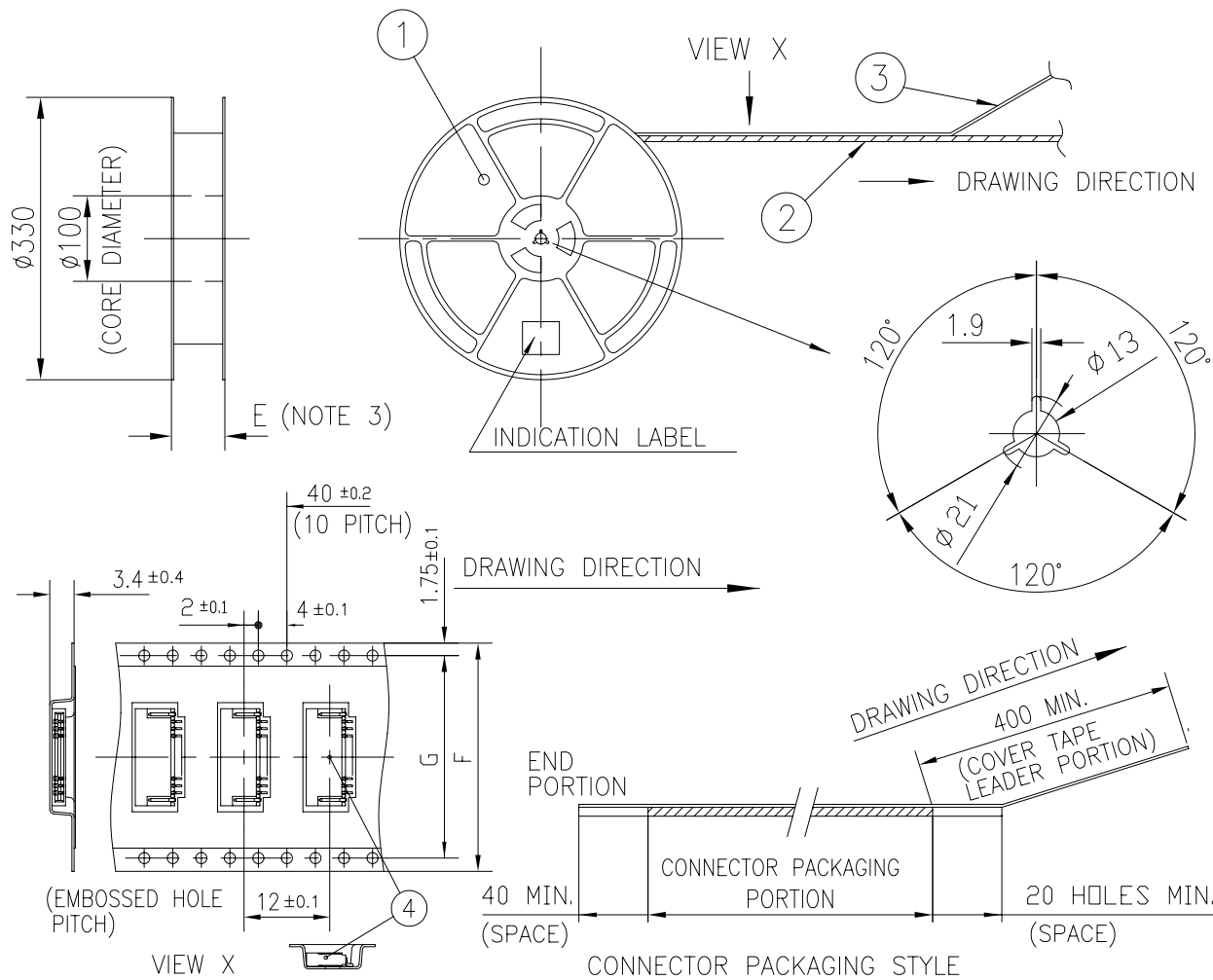


PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	Q'TY	NOTE
1	REEL	_____	POLYSTYRENE	1	COLOR:BLACK
2	PLASTIC (EMBOSSED) TAPE	_____	PET	_____	COLOR: TRANSPARENCY (CLEAR)
3	COVER	_____	POLYESTER	_____	COLOR: TRANSPARENCY (CLEAR)
4	CONNECTOR	HFW__R-1ST__LF	SEE ATTACHED DWG.	500	LOWER CONTACT TYPE

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

mat'l. code				surface 58/ISO 1302	tolerance ISO 406 ISO 1101	projection	product family 58NF	CODE JP
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm	title 1mm SPACING SMT CONNECTOR (Cat.No. HFW__R-1STE9LF)	
A				angles	linear			
				±5°		scale	dwg no sheet 6 of 9 size	
				dr	DENNIS GOH	09-05-06		
				enr	DENNIS GOH	09-05-06	10101162	
				chr	DENNIS GOH	09-05-06		
				appd	JOEY NG	09-05-06	type Product Customer Drawing	
sheet index	revision sheet							
								Rev. A



PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	Q'TY	NOTE
1	REEL	_____	POLYSTYRENE	1	COLOR: BLACK
2	PLASTIC (EMBOSSD) TAPE	_____	PET	_____	COLOR: TRANSPARENCY (CLEAR)
3	COVER	_____	POLYESTER	_____	COLOR: TRANSPARENCY (CLEAR)
4	CONNECTOR	HFW__R-2ST__LF	SEE ATTACHED DWG.	500	UPPER CONTACT TYPE

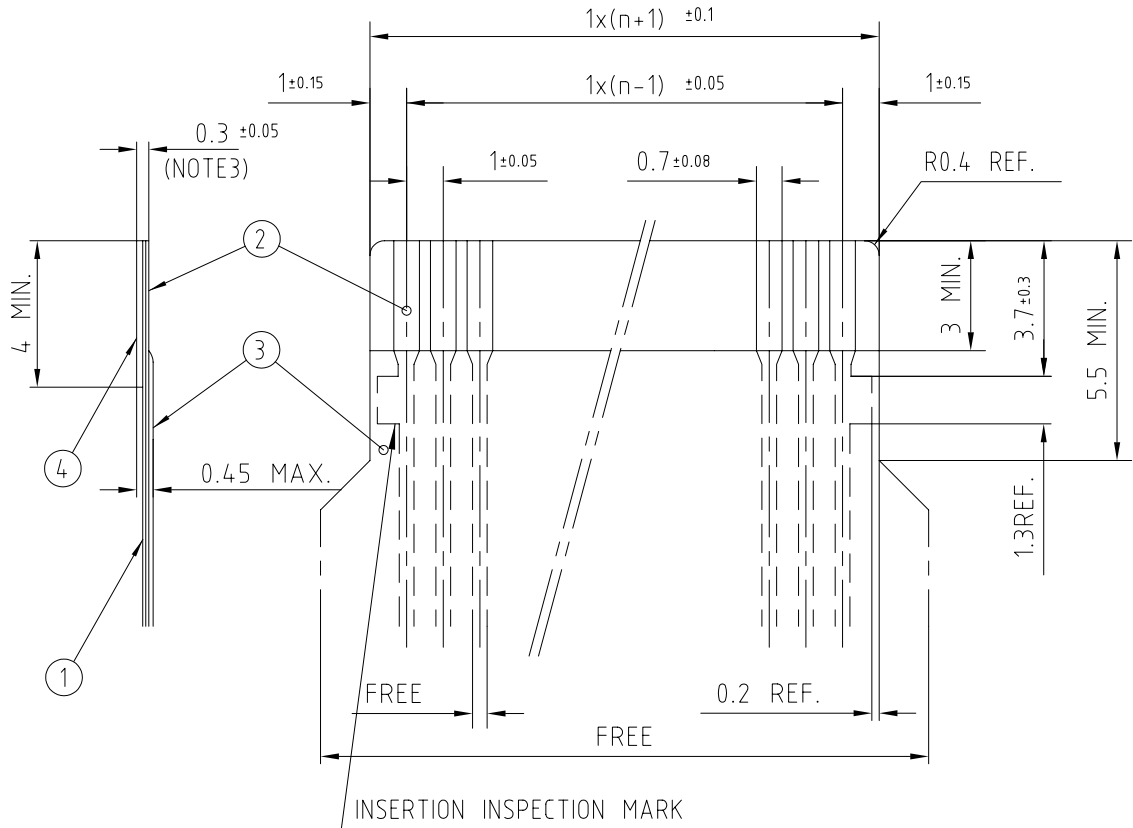
NOTES

- 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 406	projection	product family 58NF	CODE JP
ltr	ecn no	dr	date	ISO 1302	ISO 1101	mm	title	
A				tolerances unless otherwise specified	±5	scale	1mm SPACING SMT CONNECTOR (Cat.No. HFW__R-2STE9LF)	
				angles	linear		dwg no	sheet 7 of 9
				±5°			10101162	size A4
				dr	DENNIS GOH	09-05-06	type Product Customer Drawing	
				enr	DENNIS GOH	09-05-06		
				chr	DENNIS GOH	09-05-06		
				appd	JOEY NG	09-05-06		
sheet index	revision sheet							Rev. A

RECOMMENDED CABLE (FPC)

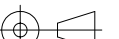
n : NO. OF CONDUCTORS



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

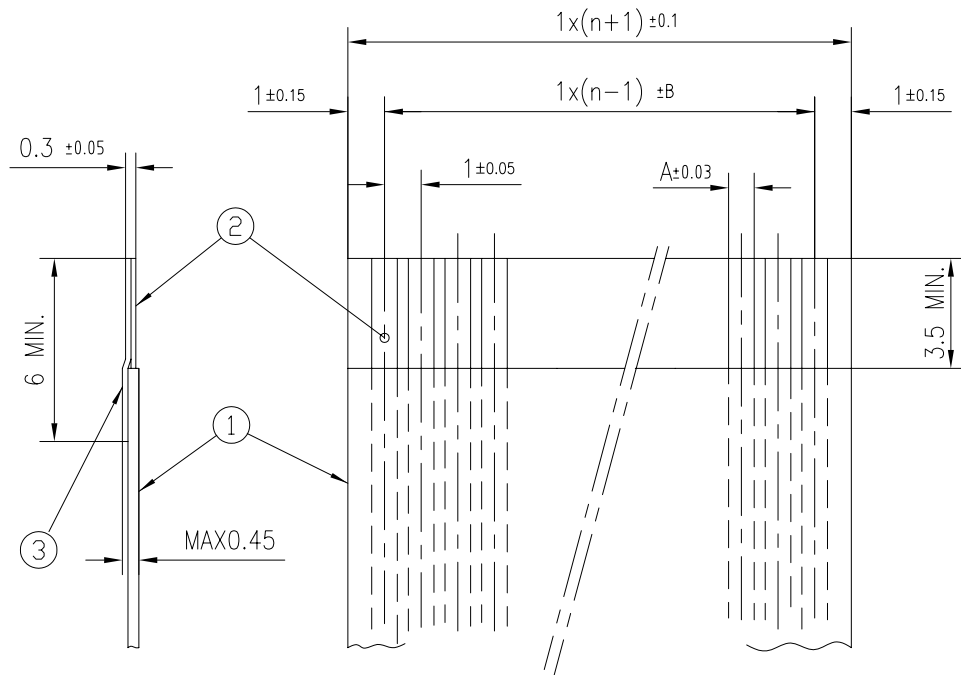
NOTES

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/ISO 1302		tolerance ISO 406/ISO 1101		projection		product family 58NF				CODE JP	
ltr	ecn no	dr	date	tolerances unless otherwise specified						title RECOMMENDED CABLE (Cat. No. HFW__R-1/2__)					
A				angles		linear		mm							
								scale 		dwg no 10101162 sheet 8 of 9 size A4					
				dr	DENNIS GOH	09-05-06									
				enr	DENNIS GOH	09-05-06									
				chr	DENNIS GOH	09-05-06									
				appd	JOEY NG	09-05-06									
sheet index	revision									type Product Customer Drawing					
	sheet														

RECOMMENDED CABLE (FFC)

n : NO. OF CONDUCTORS

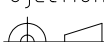


(NOTE 3)	DIMENSION A	TOLERANCE B
1	0.7	0.1
2	0.6	0.07

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/ISO 1302			tolerance ISO 406ISO 1101			projection 		product family 58NF									
ltr	ecn no	dr	date	tolerances unless otherwise specified			angles	linear		mm 	title RECOMMENDED CABLE (Cat. No. HFW__R-1/2__)										
A									scale 												
				dr	DENNIS GOH		09-05-06			dwg no	sheet 9 of 9					size					
				enr	DENNIS GOH		09-05-06				10101162					A4					
				chr	DENNIS GOH		09-05-06														
				appd	JOEY NG		09-05-06														
sheet index		revision																Rev. A			
		sheet																			