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CONFIGURATION OF CUSTOMER DOCUMENTS

P/N	DOCUMENTS	DWG. NO.	TITLE
HLW__R/S-2C7LF	SPEC	SC-HLW05	CONNECTOR USED FOR FPC/FFC WITH 1mm CONTACT SPACING
	CONNECTOR	JSA96403	CAT NO.TABLE FOR 1mm SPACING CONNECTOR
		JSA96405	1mm SPACING CONNECTOR FOR FPC/FFC
		JSA96406	1mm SPACING CONNECTOR FOR FPC/FFC
	CABLE	JSA93382	RECOMMENDED CABLE(FPC)
		JSA93383	RECOMMENDED CABLE(FFC)
	MANUAL	BJM-HLW101	HANDLING PROCEDURES AND REMARKS

P/N	DOCUMENTS	DWG. NO.	TITLE
HLW__R/S-6C7LF	SPEC	SC-HLW06	CONNECTOR USED FOR C/C WITH 1mm CONTACT SPACING
	CONNECTOR	JSA96404	CAT NO.TABLE FOR 1mm SPACING CONNECTOR
		JSA96407	1mm SPACING CONNECTOR FOR C/C
		JSA96408	1mm SPACING CONNECTOR FOR C/C
	CABLE	JSA93626	RECOMMENDED CABLE(C/C)
	MANUAL	BJM-HLW102	HANDLING PROCEDURES AND REMARKS

mat'l. code				surface 58 / tolerance ISO 1302 ☒ ISO 406 ☐ ISO 1101		projection		product family 58PF/QF		CODE JP	
ltr	ecn no	dr	date	tolerances unless otherwise specified					title 1mm SPACING CONNECTOR DOCUMENT LIST (Cat. No. HLW__R/S-2/6C7LF)		
A	J05-0270	H.T	5/11/05	angles	linear						
B	J05-0293	H.T	5/18/05					scale	dwg no JSA96418 sheet 1 of 1 size A4		
C	J05-0517	H.T	8/11/05								
D	J06-0449	H.T	11/2/06	dr		11/2/06			type Product Customer Drawing		
				enr		11/2/06					
				chr		11/2/06					
				appd		11/2/06					
sheet index	revision sheet	D 1									Rev. D

form: A4

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CAT. NO. & DIMENSIONS

NO. OF CONTACTS (n)	CAT. NO.		DIMENSIONS (NOTE1)		
	RIGHT ANGLE TYPE	STRAIGHT TYPE	A ± 0.3	B ± 0.1	C
4	HLW 4R-2C7LF	HLW 4S-2C7LF	6.6	5.12	3.0
5	HLW 5R-2C7LF	HLW 5S-2C7LF	7.6	6.12	4.0
6	HLW 6R-2C7LF	HLW 6S-2C7LF	8.6	7.12	5.0
7	HLW 7R-2C7LF	HLW 7S-2C7LF	9.6	8.12	6.0
8	HLW 8R-2C7LF	HLW 8S-2C7LF	10.6	9.12	7.0
9	HLW 9R-2C7LF	HLW 9S-2C7LF	11.6	10.12	8.0
10	HLW10R-2C7LF	HLW10S-2C7LF	12.6	11.12	9.0
11	HLW11R-2C7LF	HLW11S-2C7LF	13.6	12.12	10.0
12	HLW12R-2C7LF	HLW12S-2C7LF	14.6	13.12	11.0
13	HLW13R-2C7LF	HLW13S-2C7LF	15.6	14.12	12.0
14	HLW14R-2C7LF	HLW14S-2C7LF	16.6	15.12	13.0
15	HLW15R-2C7LF	HLW15S-2C7LF	17.6	16.12	14.0
16	HLW16R-2C7LF	HLW16S-2C7LF	18.6	17.12	15.0
17	HLW17R-2C7LF	HLW17S-2C7LF	19.6	18.12	16.0
18	HLW18R-2C7LF	HLW18S-2C7LF	20.6	19.12	17.0
19	HLW19R-2C7LF	HLW19S-2C7LF	21.6	20.12	18.0
20	HLW20R-2C7LF	HLW20S-2C7LF	22.6	21.12	19.0
21	HLW21R-2C7LF	HLW21S-2C7LF	23.6	22.12	20.0
22	HLW22R-2C7LF	HLW22S-2C7LF	24.6	23.12	21.0
23	HLW23R-2C7LF	HLW23S-2C7LF	25.6	24.12	22.0
24	HLW24R-2C7LF	HLW24S-2C7LF	26.6	25.12	23.0
25	HLW25R-2C7LF	HLW25S-2C7LF	27.6	26.12	24.0
26	HLW26R-2C7LF	HLW26S-2C7LF	28.6	27.12	25.0
27	HLW27R-2C7LF	HLW27S-2C7LF	29.6	28.12	26.0
28	HLW28R-2C7LF	HLW28S-2C7LF	30.6	29.12	27.0
29	HLW29R-2C7LF	HLW29S-2C7LF	31.6	30.12	28.0
30	HLW30R-2C7LF	HLW30S-2C7LF	32.6	31.12	29.0
31	HLW31R-2C7LF	HLW31S-2C7LF	33.6	32.12	30.0
32	HLW32R-2C7LF	HLW32S-2C7LF	34.6	33.12	31.0

CAT. NO. HLW (n) R - 2C7 LF

SERIES _____

NO. OF CONTACTS _____

R : RIGHT ANGLE TYPE

S : STRAIGHT TYPE

VARIATION _____

LEAD FREE _____

NOTES

1. SEE PART DRAWINGS FOR DIMENSIONS A~C.

mat'l. code				surface 58 / tolerance ISO 406 / ISO 1101		projection		product family 58PF/QF		CODE JP		
ltr	ecn no	dr	date	tolerances unless otherwise specified				title CAT NO. TABLE FOR 1mm SPACING CONNECTOR (Cat. No. : HLW__R/S-2C7LF)				
A	J05-0270	H.T	5/10/05	angles	linear	mm						
B	J06-0449	H.T	11/2/06			scale X						
				dr	11/2/06				dwg no		sheet 1 of 1	size
				engr	11/2/06				JSA 96403		A4	
				chr	11/2/06							
				appd	11/7/06							
sheet index		revision	B					type Product Customer Drawing		Rev. B		

SC-HLW05 JSA96405 96406 93382 93383
form: A4



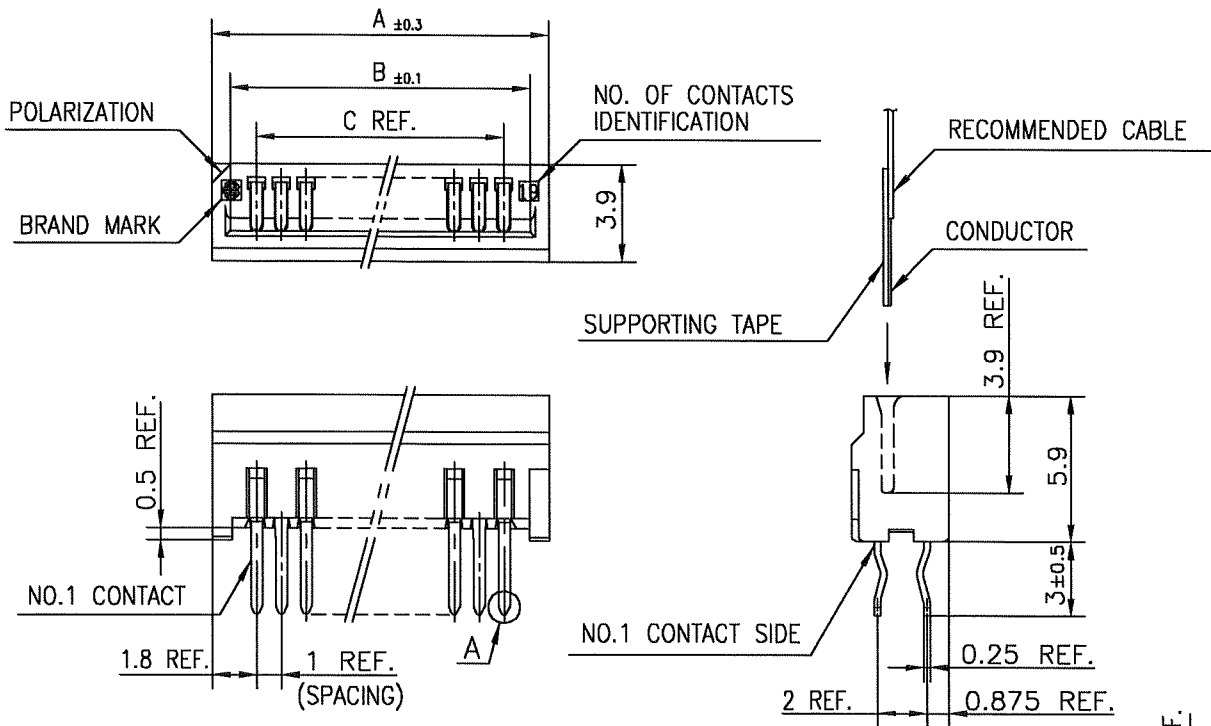
INSULATOR : PBT RESIN GLASS REINFORCED (UL94V-0)
COLOR : BLACK
CONTACT : PHOSPHOR BRONZE
PLATING : TIN

1. THIS PRODUCT IS RIGHT ANGLE TYPE CONNECTOR. DETAIL A
2. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER
COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
3. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10
SECONDS IN A WAVE SOLDER APPLICATION WITH A 1.6mm THICK CIRCUIT BOARD.

THICKNESS : 1.2~1.6
HOLE PATTERN (COMPONENT SIDE)

Figure 1 is a technical drawing of a component side pattern. It shows a grid of contact points (circles) arranged in two rows. The top row has n points, and the bottom row has n points. The horizontal distance between the first and last points in the top row is $1X(n-1) \pm 0.1$. The horizontal distance between the first and second points in the top row is 1 ± 0.1 . The horizontal distance between the second and third points in the top row is 2 ± 0.1 . The vertical distance between the first and second points in the top row is 2 ± 0.1 . The vertical distance between the first and second points in the bottom row is 2 ± 0.1 . The horizontal distance between the first and second points in the bottom row is 2 ± 0.1 . The horizontal distance between the last point in the top row and the last point in the bottom row is $n - \phi 0.7 \pm 0.05$. The label "NO.1 CONTACT POSITION" points to the first contact point in the bottom row. The label "PATTERN (COMPONENT SIDE)" is at the top left.

SC-HLW05 JSA96403
form: A4



MATERIAL

INSULATOR : PBT RESIN GLASS REINFORCED (UL94V-0)
 COLOR : BLACK
 CONTACT : PHOSPHOR BRONZE
 PLATING : TIN

NOTE 1. THIS PRODUCT IS STRAIGHT TYPE CONNECTOR.

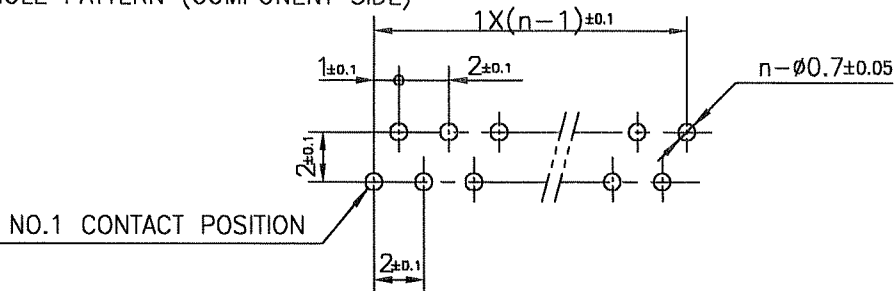
2. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.

3. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A WAVE SOLDER APPLICATION WITH A 1.6mm THICK CIRCUIT BOARD.

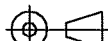
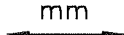
RECOMMENDED PC BOARD

THICKNESS : 1.2~1.6

HOLE PATTERN (COMPONENT SIDE)



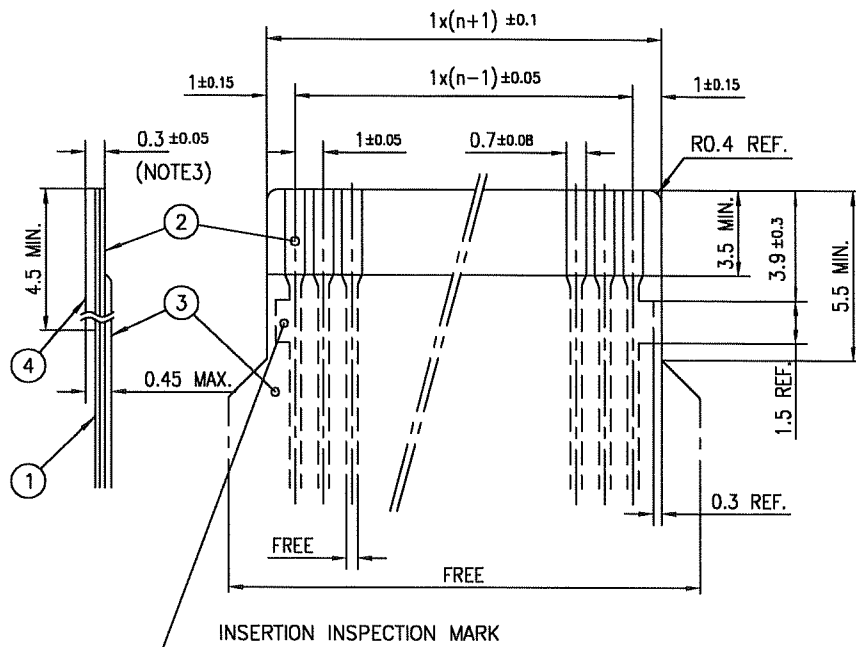
n : NO. OF CONTACTS

mat'l. code				surface 58 ✓ ISO 1302		tolerance ISO 406 ISO 1101		projection 		product family 58QF				CODE JP			
ltr	ecn no	dr	date	tolerances unless otherwise specified								title 1mm SPACING CONNECTOR FOR FPC/FFC (Cat. No. :HLW__S-2C7LF)					
A	J05-0270	H.T	5/10/05	angles	linear	±0.2		scale $\propto$									
B	J05-0735	H.T	10/28/05														
C	J06-0449	H.T	11/2/06														
				dr	<i>[Signature]</i> 11/2/06				dwg no				sheet 1 of 1		size		
				enrg	<i>[Signature]</i> 11/2/06				JSA 96406				A4				
				chr	<i>R. Shoups</i> 11/2/06												
				appd	<i>S. Delaney</i> 11/7/06												
sheet index	revision	C													Rev. C		
	sheet	1															

SC-HLW05 JSA96403
 form: A4

RECOMMENDED CABLE (FPC)

n : NO. OF CONDUCTORS



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

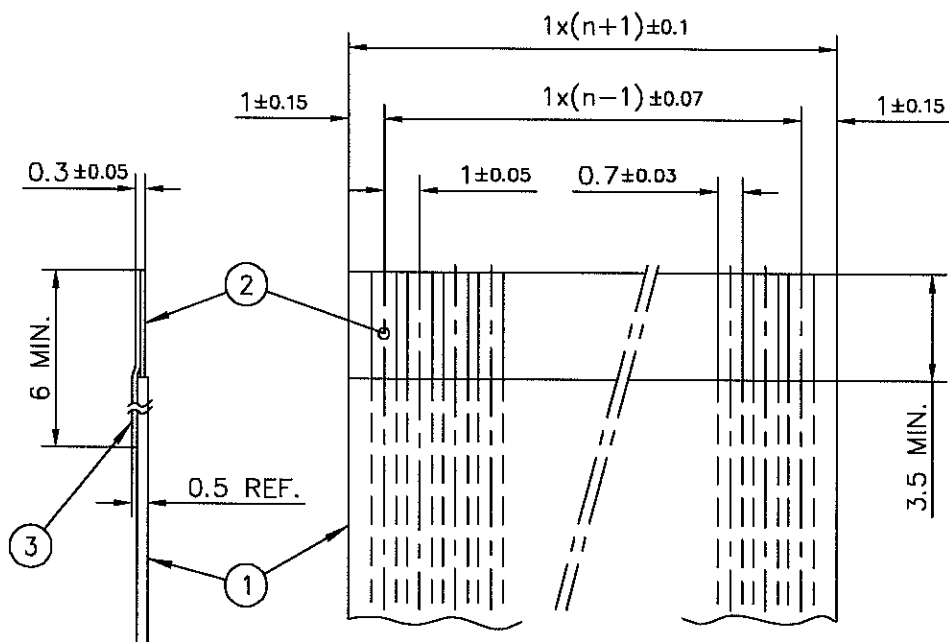
NOTES

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 ✓ ISO 406 ISO 1101		projection		product family 58PF/QF		CODE JP	
ltr	ecn no	dr	date	tolerances unless otherwise specified				title RECOMMENDED CABLE (FPC) (Cat. No. HLW__R/S-__)			
AA	J05-0270	H.T	5/11/05	angles	linear	mm					
AB	J06-0449	H.T	11/2/06			scale X		dwg no JSA 93382 sheet 1 of 1 size A4			
				dr	engr	chr	appd				
								type Product Customer Drawing			
sheet index	revision sheet	AB 1									

RECOMMENDED CABLE (FFC)

n : NO. OF CONDUCTORS



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.

mat'l. code				surface 58 / tolerance ISO 1302 ✓ ISO 406 ISO 1101		projection		product family 58PF/QF		CODE JP	
litr	ecn no	dr	date	tolerances unless otherwise specified		mm		title			
AA	J05-0270	H.T	5/11/05	angles linear		mm		RECOMMENDED CABLE (FFC)			
AB	J06-0449	H.T	11/2/06			scale X		(Cat. No. HLW_R/S-___)			
				dr		11/2/06		dwg no		sheet 1 of 1 size	
				enrg		11/2/06		JSA 93383		A4	
				chr		11/2/06		type		Product Customer Drawing	
				appd		11/2/06					
sheet index	revision	AB	1							Rev. AB	

form: A4

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CAT. NO. & DIMENSIONS

NO. OF CONTACTS (n)	CAT. NO.		DIMENSIONS (NOTE1)		
	RIGHT ANGLE TYPE	STRAIGHT TYPE	A ± 0.3	B ± 0.1	C
4	HLW 4R-6C7LF	HLW 4S-6C7LF	6.6	5.12	3.0
5	HLW 5R-6C7LF	HLW 5S-6C7LF	7.6	6.12	4.0
6	HLW 6R-6C7LF	HLW 6S-6C7LF	8.6	7.12	5.0
7	HLW 7R-6C7LF	HLW 7S-6C7LF	9.6	8.12	6.0
8	HLW 8R-6C7LF	HLW 8S-6C7LF	10.6	9.12	7.0
9	HLW 9R-6C7LF	HLW 9S-6C7LF	11.6	10.12	8.0
10	HLW10R-6C7LF	HLW10S-6C7LF	12.6	11.12	9.0
11	HLW11R-6C7LF	HLW11S-6C7LF	13.6	12.12	10.0
12	HLW12R-6C7LF	HLW12S-6C7LF	14.6	13.12	11.0
13	HLW13R-6C7LF	HLW13S-6C7LF	15.6	14.12	12.0
14	HLW14R-6C7LF	HLW14S-6C7LF	16.6	15.12	13.0
15	HLW15R-6C7LF	HLW15S-6C7LF	17.6	16.12	14.0
16	HLW16R-6C7LF	HLW16S-6C7LF	18.6	17.12	15.0
17	HLW17R-6C7LF	HLW17S-6C7LF	19.6	18.12	16.0
18	HLW18R-6C7LF	HLW18S-6C7LF	20.6	19.12	17.0
19	HLW19R-6C7LF	HLW19S-6C7LF	21.6	20.12	18.0
20	HLW20R-6C7LF	HLW20S-6C7LF	22.6	21.12	19.0
21	HLW21R-6C7LF	HLW21S-6C7LF	23.6	22.12	20.0
22	HLW22R-6C7LF	HLW22S-6C7LF	24.6	23.12	21.0
23	HLW23R-6C7LF	HLW23S-6C7LF	25.6	24.12	22.0
24	HLW24R-6C7LF	HLW24S-6C7LF	26.6	25.12	23.0
25	HLW25R-6C7LF	HLW25S-6C7LF	27.6	26.12	24.0
26	HLW26R-6C7LF	HLW26S-6C7LF	28.6	27.12	25.0
27	HLW27R-6C7LF	HLW27S-6C7LF	29.6	28.12	26.0
28	HLW28R-6C7LF	HLW28S-6C7LF	30.6	29.12	27.0
29	HLW29R-6C7LF	HLW29S-6C7LF	31.6	30.12	28.0
30	HLW30R-6C7LF	HLW30S-6C7LF	32.6	31.12	29.0
31	HLW31R-6C7LF	HLW31S-6C7LF	33.6	32.12	30.0
32	HLW32R-6C7LF	HLW32S-6C7LF	34.6	33.12	31.0

CAT. NO. HLW (n) R - 6C7 LF

SERIES

NO. OF CONTACTS

R : RIGHT ANGLE TYPE

S : STRAIGHT TYPE

VARIATION

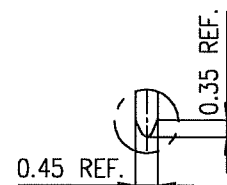
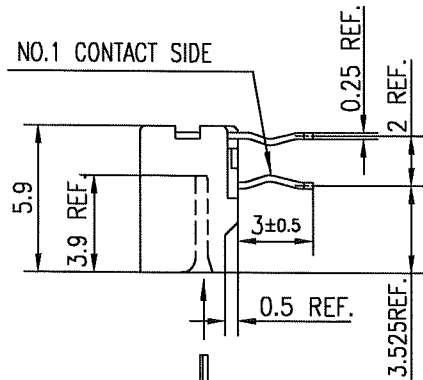
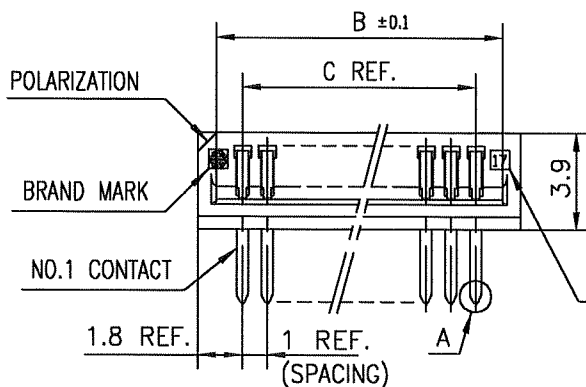
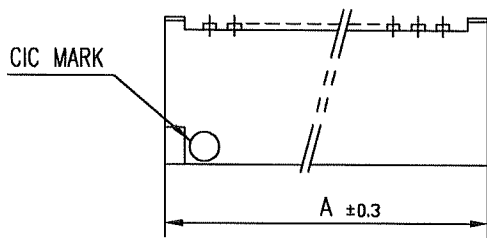
LEAD FREE

NOTES

1. SEE PART DRAWINGS FOR DIMENSIONS A~C.

mat'l. code				surface 58 / tolerance ISO 406 / ISO 1101		projection		product family 58PF/QF		CODE JP	
ltr ecn no dr date				tolerances unless otherwise specified		mm		title			
A J05-0270 H.T 5/10/05				angles linear		mm		CAT NO. TABLE FOR 1mm SPACING CONNECTOR (Cat. No. : HLW__R/S-6C7LF)			
B J06-0449 H.T 11/2/06						scale X		dwg no sheet 1 of 1 size			
				dr 11/2/06		FCI		JSA 96404 A4			
				engr 11/2/06				type Product Customer Drawing			
				chr 11/2/06							
				appd 11/2/06							
sheet index		revision sheet		B 1						Rev. B	

SC-HLW06 form: A4 JSA96407 96408 93626



MATERIAL

INSULATOR : PBT RESIN GLASS REINFORCED (UL94V-0)
 COLOR : BLACK
 CONTACT : PHOSPHOR BRONZE
 PLATING : TIN

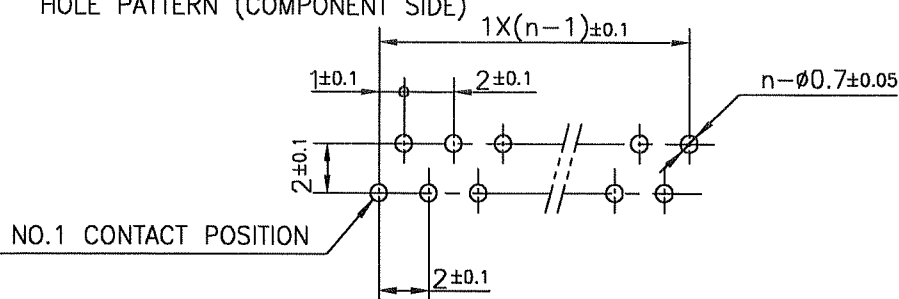
NOTE

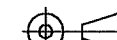
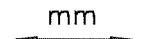
- 1.THIS PRODUCT IS RIGHT ANGLE TYPE CONNECTOR.
- 2.THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
- 3.THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A WAVE SOLDER APPLICATION WITH A 1.6mm THICK CIRCUIT BOARD.

RECOMMENDED PC BOARD

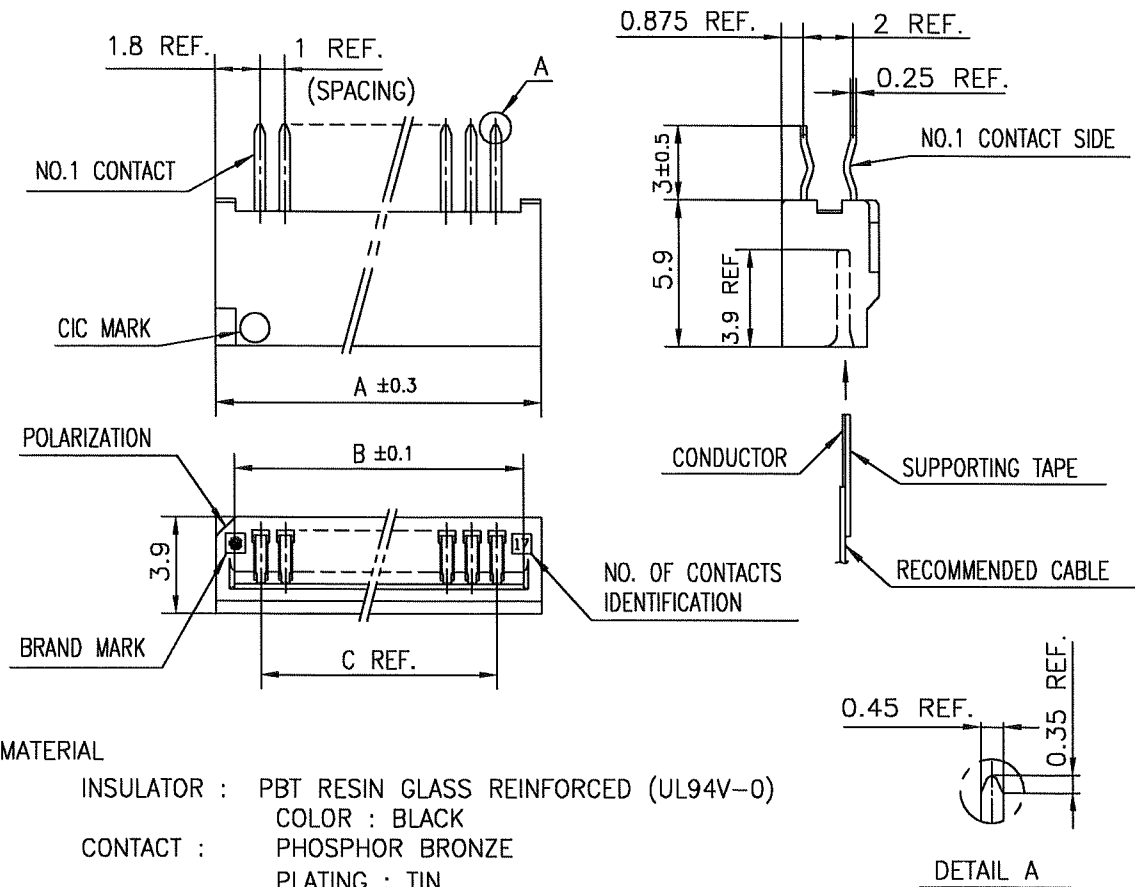
THICKNESS : 1.2~1.6
 HOLE PATTERN (COMPONENT SIDE)

n : NO. OF CONTACTS



mat'l. code				surface 58 ✓ ISO 1302		tolerance ISO 406 ISO 1101		projection 		product family 58PF						CODE JP	
ltr	ecn no	dr	date	tolerances unless otherwise specified						title 1mm SPACING CONNECTOR FOR CIC (Cat. No. :HLW__R-6C7LF)							
A	J05-0270	H.T	5/10/05	angles	linear	±0.2											
B	J05-0735	H.T	10/28/05														
C	J06-0449	H.T	11/2/06														
				dr	<i>H. Shounji</i>	<i>11/2/06</i>			dwg no						sheet 1 of 1	size	
				enr	<i>H. Shounji</i>	<i>11/2/06</i>			JSA 96407						A4		
				chr	<i>K. Shounji</i>	<i>11/2/06</i>			type Product Customer Drawing								
				appd	<i>S. Andam</i>	<i>11/2/06</i>											
sheet index	revision	C														Rev. c	
	sheet	1															

SC-HLW06 JSA96404
 form: A4



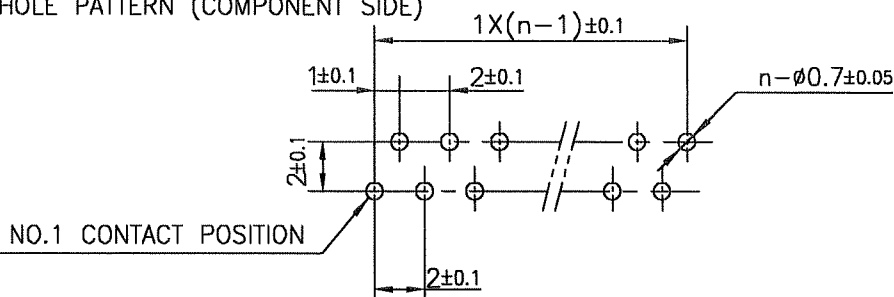
NOTE

1. THIS PRODUCT IS STRAIGHT TYPE CONNECTOR.
2. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
3. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A WAVE SOLDER APPLICATION WITH A 1.6mm THICK CIRCUIT BOARD.

RECOMMENDED PC BORAD

n : NO. OF CONTACTS

THICKNESS : 1.2~1.6
 HOLE PATTERN (COMPONENT SIDE)

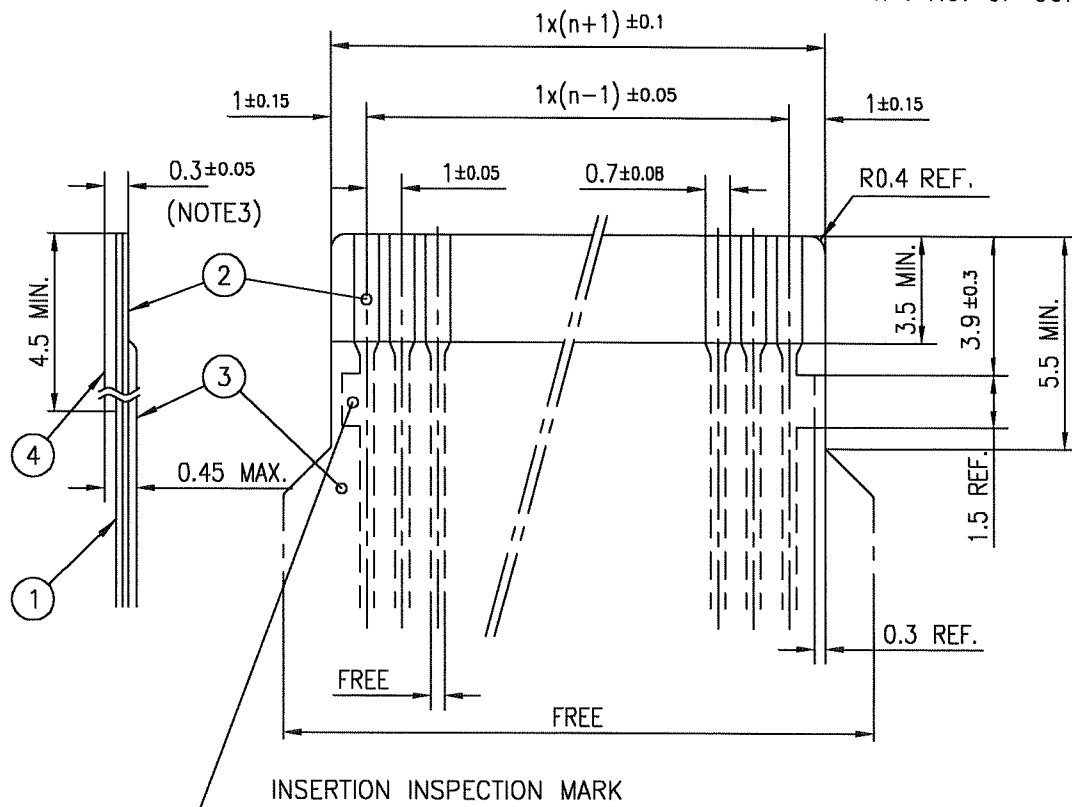


mat'l. code				surface 58	tolerance	projection	product family	CODE
				ISO 1302	ISO 406		58QF	JP
				tolerances unless otherwise specified			title 1mm SPACING CONNECTOR FOR CIC (Cat. No. :HLW__S-6C7LF)	
ltr	ecn no	dr	date	angles	linear	mm		
A	J05-0270	H.T	5/10/'05					
B	J05-0735	H.T	10/28/'05				dwg no	
C	J06-0449	H.T	11/2/'01			scale		
				dr	11/2/'06	FCI	sheet 1 of 1	
				enr	11/2/'06		JSA 96408	
				chr	11/2/'06		type Product Customer Drawing	
				appd	11/2/'06			
sheet	revision	C						Rev.
index	sheet	1						c

SC-HLW 06 JSA96404
 form: A4

RECOMMENDED CABLE (CIC)

n : NO. OF CONDUCTORS



PT. NO.	DESCRIPTION	MATERIAL	THICKNESS (μm)	
1	BASE FILM	POLYESTER OR EQUIVALENT	75	25
2	CONDUCTOR	CARBON PASTE OVER SILVER PASTE	10 MIN.	
3	OVERLAY	POLYIMIDE OR POLYESTER OR EQUIVALENT	—	
4	SUPPORTING TAPE	POLYESTER OR POLYIMIDE OR EQUIVALENT	188	250

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 ☒ ISO 1302 ☒ tolerance ☒ ISO 406 ☒ ISO 1101		projection		product family 58PF/QF		CODE JP	
ltr	ecn no	dr	date	tolerances unless otherwise specified				title			
AA	J05-0270	H.T	5/11/05	angles	linear	mm		RECOMMENDED CABLE (CIC)			
AB	J06-0449	H.T	11/2/06					(Cat. No. HLW__R/S-__)			
				dr	11/2/06			dwg no		sheet 1 of 1	size
			enr	11/2/06	JSA 93626			A4			
			chr	11/2/06							
			appd	11/2/06							
sheet index	revision sheet	AB	1					type Product Customer Drawing		Rev. AB	

form: A4

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