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CONFIGURATION OF CUSTOMER DOCUMENTS

P/N	DOCUMENTS	DWG. NO.	TITLE
HLW__R/S-2A7LF	SPEC	SC-HLW05	CONNECTOR USED FOR FPC/FFC WITH 1mm CONTACT SPACING
	CONNECTOR	JSA96830	CAT NO.TABLE FOR 1mm SPACING CONNECTOR
		JSA96831	1mm SPACING CONNECTOR FOR FPC/FFC
		JSA96832	1mm SPACING CONNECTOR FOR FPC/FFC
	CABLE	JSA93382	RECOMMENDED CABLE(FPC)
MANUAL	JSA93383	RECOMMENDED CABLE(FFC)	
		BJM-HLW101	HANDLING PROCEDURES AND REMARKS

P/N	DOCUMENTS	DWG. NO.	TITLE
HLW__R/S-6A7LF	SPEC	SC-HLW06	CONNECTOR USED FOR CIC WITH 1mm CONTACT SPACING
	CONNECTOR	JSA96833	CAT NO.TABLE FOR 1mm SPACING CONNECTOR
		JSA96834	1mm SPACING CONNECTOR FOR CIC
		JSA96835	1mm SPACING CONNECTOR FOR CIC
	CABLE	JSA93626	RECOMMENDED CABLE(CIC)
MANUAL		BJM-HLW102	HANDLING PROCEDURES AND REMARKS

mat'l. code				surface 58 / ISO 1302 ✓		tolerance ISO 406 / ISO 1101		projection		product family 58PF/QF		CODE JP	
ltr	ecn no	dr	date	tolerances unless otherwise specified				mm		title 1mm SPACING CONNECTOR DOCUMENT LIST (Cat. No. HLW__R/S-2/6A7LF)			
A	J05-0775	H.T	11/16/05	angles	linear	scale $\propto$							
B	J06-0449	H.T	11/2/06							dwg no		sheet 1 of 1 size	
				dr <i>H. Hattori 11/2/06</i>		JSA96829				A4			
				enr <i>H. Hattori 11/2/06</i>		type Product Customer Drawing							
				chr <i>R. Shoupe 11/2/06</i>									
				appd <i>S. DeLauri 11/2/06</i>									
sheet index	revision sheet	B	1									Rev. B	

form: A4

1

2

CAT. NO. & DIMENSIONS

NO. OF CONTACTS (n)	CAT. NO.		DIMENSIONS (NOTE1)		
	RIGHT ANGLE TYPE	STRAIGHT TYPE	A ± 0.3	B ± 0.1	C ± 0.3
4	HLW 4 R-2A7LF	HLW 4 S-2A7LF	6.6	5.12	3.0
5	HLW 5 R-2A7LF	HLW 5 S-2A7LF	7.6	6.12	4.0
6	HLW 6 R-2A7LF	HLW 6 S-2A7LF	8.6	7.12	5.0
7	HLW 7 R-2A7LF	HLW 7 S-2A7LF	9.6	8.12	6.0
8	HLW 8 R-2A7LF	HLW 8 S-2A7LF	10.6	9.12	7.0
9	HLW 9 R-2A7LF	HLW 9 S-2A7LF	11.6	10.12	8.0
10	HLW 10 R-2A7LF	HLW 10 S-2A7LF	12.6	11.12	9.0
11	HLW 11 R-2A7LF	HLW 11 S-2A7LF	13.6	12.12	10.0
12	HLW 12 R-2A7LF	HLW 12 S-2A7LF	14.6	13.12	11.0
13	HLW 13 R-2A7LF	HLW 13 S-2A7LF	15.6	14.12	12.0
14	HLW 14 R-2A7LF	HLW 14 S-2A7LF	16.6	15.12	13.0
15	HLW 15 R-2A7LF	HLW 15 S-2A7LF	17.6	16.12	14.0
16	HLW 16 R-2A7LF	HLW 16 S-2A7LF	18.6	17.12	15.0
17	HLW 17 R-2A7LF	HLW 17 S-2A7LF	19.6	18.12	16.0
18	HLW 18 R-2A7LF	HLW 18 S-2A7LF	20.6	19.12	17.0
19	HLW 19 R-2A7LF	HLW 19 S-2A7LF	21.6	20.12	18.0
20	HLW 20 R-2A7LF	HLW 20 S-2A7LF	22.6	21.12	19.0
21	HLW 21 R-2A7LF	HLW 21 S-2A7LF	23.6	22.12	20.0
22	HLW 22 R-2A7LF	HLW 22 S-2A7LF	24.6	23.12	21.0
23	HLW 23 R-2A7LF	HLW 23 S-2A7LF	25.6	24.12	22.0
24	HLW 24 R-2A7LF	HLW 24 S-2A7LF	26.6	25.12	23.0
25	HLW 25 R-2A7LF	HLW 25 S-2A7LF	27.6	26.12	24.0
26	HLW 26 R-2A7LF	HLW 26 S-2A7LF	28.6	27.12	25.0
27	HLW 27 R-2A7LF	HLW 27 S-2A7LF	29.6	28.12	26.0
28	HLW 28 R-2A7LF	HLW 28 S-2A7LF	30.6	29.12	27.0
29	HLW 29 R-2A7LF	HLW 29 S-2A7LF	31.6	30.12	28.0
30	HLW 30 R-2A7LF	HLW 30 S-2A7LF	32.6	31.12	29.0
31	HLW 31 R-2A7LF	HLW 31 S-2A7LF	33.6	32.12	30.0
32	HLW 32 R-2A7LF	HLW 32 S-2A7LF	34.6	33.12	31.0

CAT. NO. HLW (n) R - 2A7 LF

SERIES \_\_\_\_\_

NO. OF CONTACTS \_\_\_\_\_

R : RIGHT ANGLE TYPE

S : STRAIGHT TYPE

VARIATION \_\_\_\_\_

LEAD FREE \_\_\_\_\_

NOTES

1. SEE PART DRAWINGS FOR DIMENSIONS A~C.

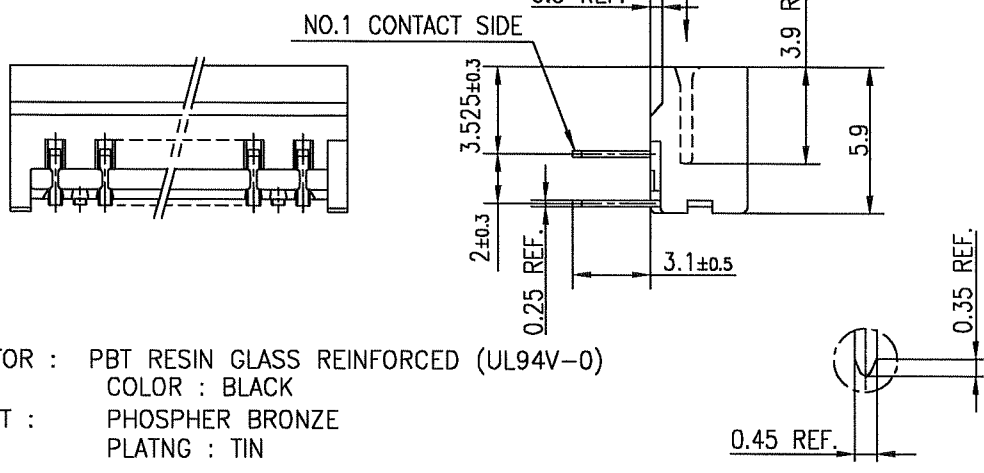
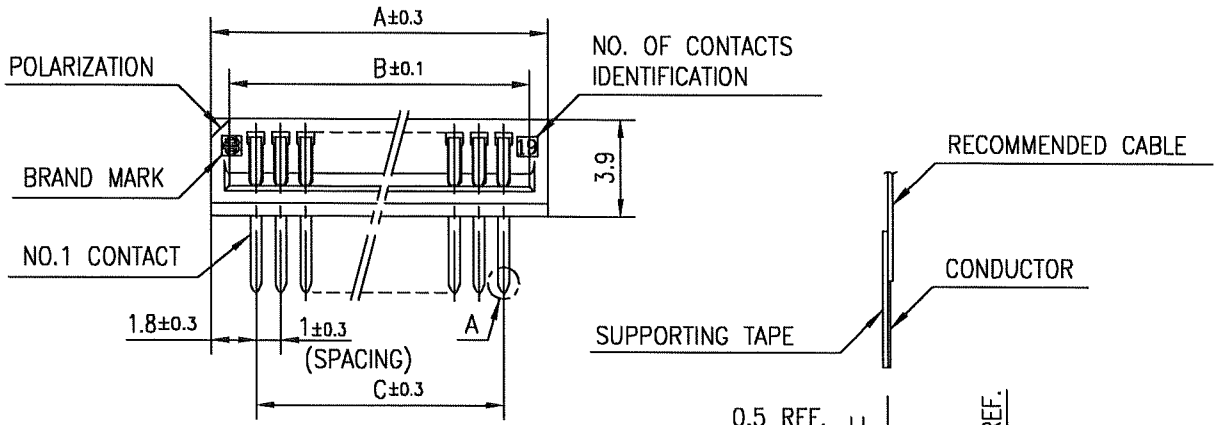
mat'l. code				surface 58 / ISO 1302 ✓		tolerance ISO 406 / ISO 1101		projection		product family 58PF/QF		CODE JP	
ltr ecn no dr date				tolerances unless otherwise specified						title CAT NO. TABLE FOR 1mm SPACING CONNECTOR (Cat. No. HLW__R/S-2A7LF)			
A J05-0775 H.T 11/16/05				angles		linear		scale X		dwg no JSA 96830		sheet 1 of 1 size A4	
B J06-0449 H.T 11/2/05				dr <i>H. Hoshino</i> 11/2/06		enr <i>H. Hoshino</i> 11/2/06				type Product Customer Drawing		Rev. B	
sheet index				revision B		sheet 1							

SC-HLW05, JSA96831,96832,93382,93383 form: A4



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**MATERIAL**

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

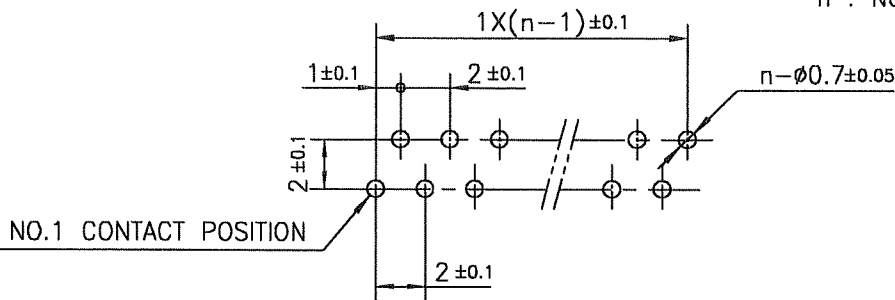
**NOTE**

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



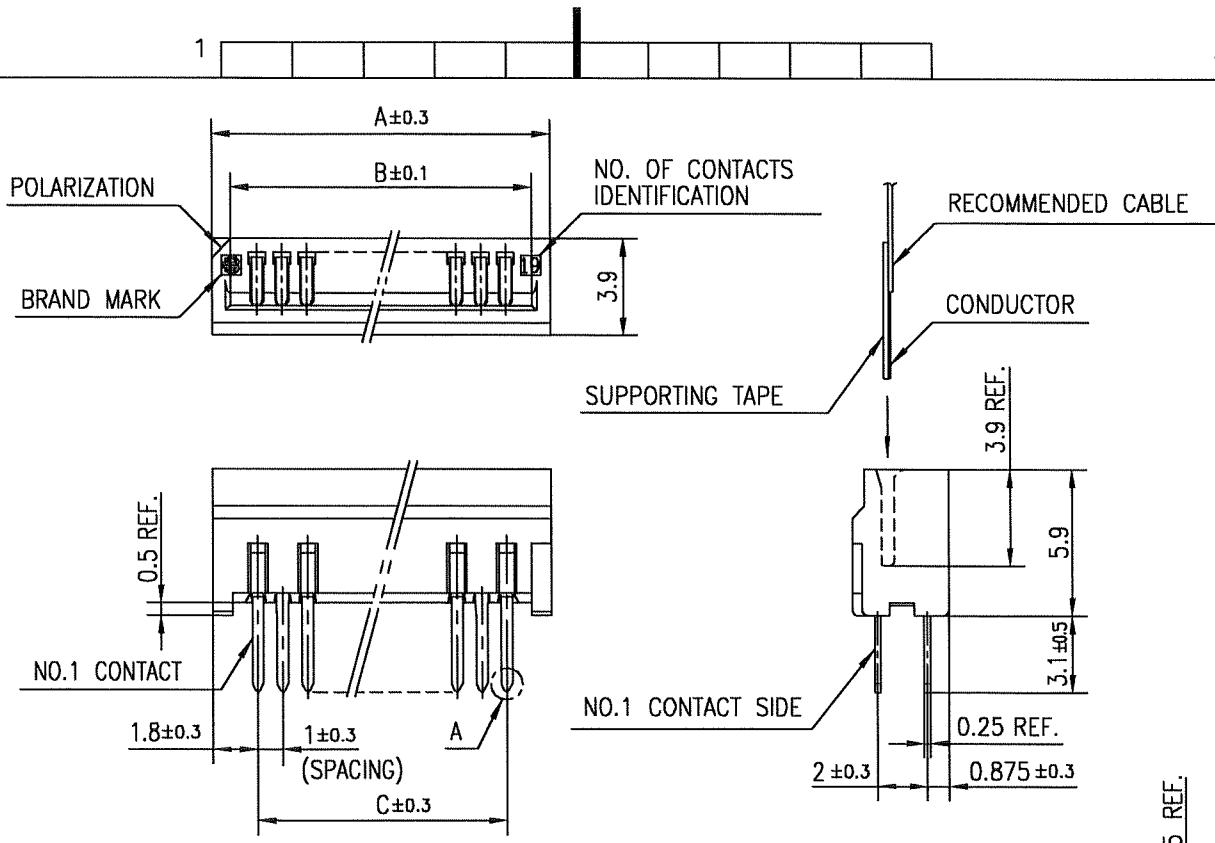
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				ISO 1302	ISO 406				JP
				tolerances unless otherwise specified	ISO 1101		title		
ltr	ecn no	dr	date	angles	linear	mm	1mm SPACING CONNECTOR FOR FPC/FFC (Cat. No. HLW__R-2A7LF)		
A	J05-0775	H.T	11/16/05			scale	X		
B	J06-0449	H.T	11/2/06			dwg no		sheet 1 of 1	size
				dr	11/2/06		JSA 96831		A4
				enr	11/2/06		type		Product Customer Drawing
				chr	11/2/06				
				appd	11/2/06				
sheet index	revision	B	sheet	1					Rev. B

SC-HLW05, JSA96830  
 form: A4



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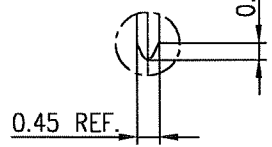


**MATERIAL**

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.

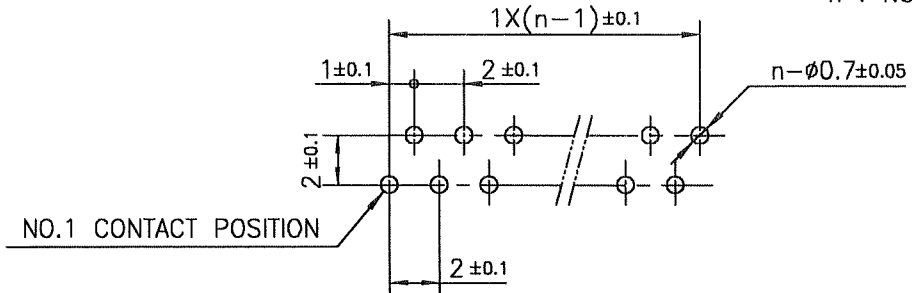


DETAIL A

**RECOMMENDED PC BOARD**

THICKNESS : 1.2~1.6  
 HOLE PATTERN (COMPONENT SIDE)

n : NO. OF CONTACTS

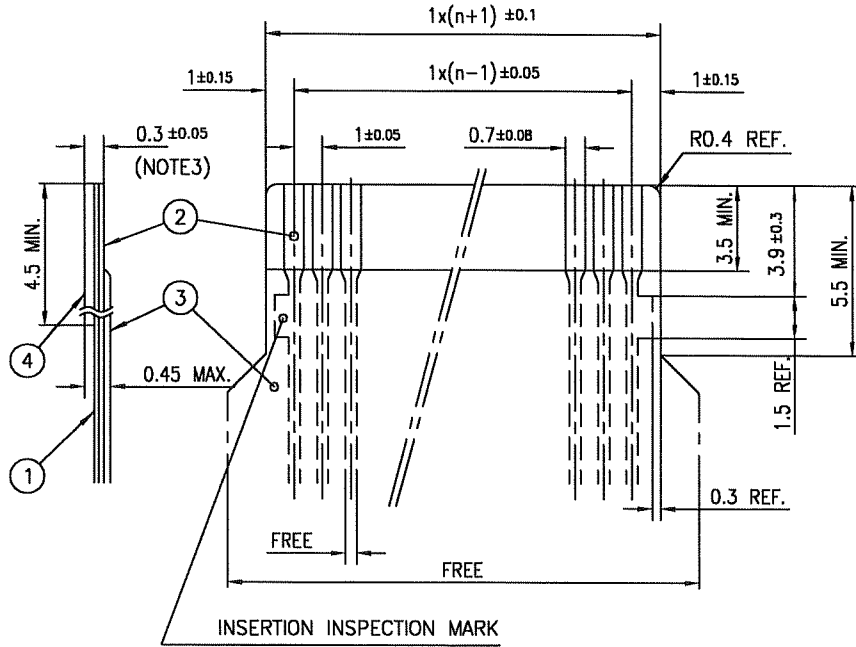


mat'l. code				surface 58 / tolerance ISO 406 / ISO 1302 ✓ / ISO 1101		projection		product family 58QF		CODE JP	
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm		title			
A	J05-0775	H.T	11/16/05	±0.2		mm		1mm SPACING CONNECTOR FOR FPC/FFC (Cat. No. HLW__S-2A7LF)			
B	J06-0449	H.T	11/2/06	angles	linear	scale X		dwg no JSA 96832 sheet 1 of 1 size A4			
				dr	H. Nishida 11/2/06				type Product Customer Drawing		
				enr	H. Nishida 11/5/06						
				chr	R. Shoji 11/2/06						
				appd	S. Nishida 11/7/06						
sheet index	revision sheet	B	1							Rev B	

SC-HLW05, JSA96830  
 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

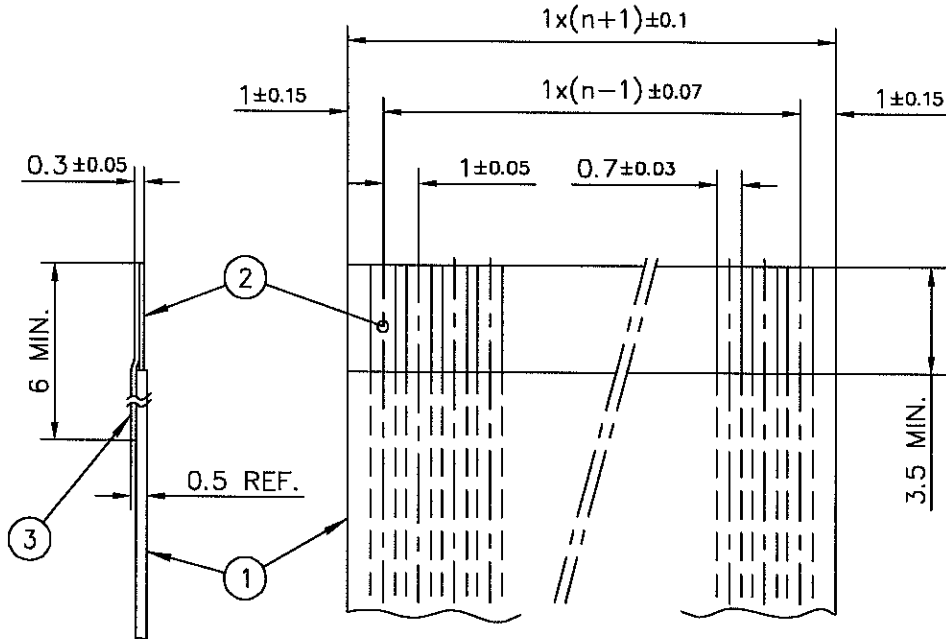
NOTES

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 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				RECOMMENDED CABLE (FPC)			
AB	J06-0449	H.T	11/2/06					(Cat. No. HLW__R/S-__)			
				dr <i>[Signature]</i> 11/21/06				dwg no		sheet 1 of 1 size	
				enr <i>[Signature]</i> 11/21/06				JSA 93382		A4	
				chr <i>[Signature]</i> 11/2/06				type Product Customer Drawing			
				appd <i>[Signature]</i> 11/7/06							
sheet index		revision sheet		AB 1						Rev. AB	

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 1 μm 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		FCI		dwg no sheet 1 of 1 size			
				enr 11/2/06				JSA 93383		A4	
				chr R. Shouji 11/2/06				type Product Customer Drawing			
				appd S. De.dan 11/2/06							
sheet index		revision sheet		AB 1						Rev AB	



CAT. NO. & DIMENSIONS

NO. OF CONTACTS (n)	CAT. NO.		DIMENSIONS (NOTE1)		
	RIGHT ANGLE TYPE	STRAIGHT TYPE	A ± 0.3	B ± 0.1	C ± 0.3
4	HLW 4 R-6A7LF	HLW 4 S-6A7LF	6.6	5.12	3.0
5	HLW 5 R-6A7LF	HLW 5 S-6A7LF	7.6	6.12	4.0
6	HLW 6 R-6A7LF	HLW 6 S-6A7LF	8.6	7.12	5.0
7	HLW 7 R-6A7LF	HLW 7 S-6A7LF	9.6	8.12	6.0
8	HLW 8 R-6A7LF	HLW 8 S-6A7LF	10.6	9.12	7.0
9	HLW 9 R-6A7LF	HLW 9 S-6A7LF	11.6	10.12	8.0
10	HLW 10 R-6A7LF	HLW 10 S-6A7LF	12.6	11.12	9.0
11	HLW 11 R-6A7LF	HLW 11 S-6A7LF	13.6	12.12	10.0
12	HLW 12 R-6A7LF	HLW 12 S-6A7LF	14.6	13.12	11.0
13	HLW 13 R-6A7LF	HLW 13 S-6A7LF	15.6	14.12	12.0
14	HLW 14 R-6A7LF	HLW 14 S-6A7LF	16.6	15.12	13.0
15	HLW 15 R-6A7LF	HLW 15 S-6A7LF	17.6	16.12	14.0
16	HLW 16 R-6A7LF	HLW 16 S-6A7LF	18.6	17.12	15.0
17	HLW 17 R-6A7LF	HLW 17 S-6A7LF	19.6	18.12	16.0
18	HLW 18 R-6A7LF	HLW 18 S-6A7LF	20.6	19.12	17.0
19	HLW 19 R-6A7LF	HLW 19 S-6A7LF	21.6	20.12	18.0
20	HLW 20 R-6A7LF	HLW 20 S-6A7LF	22.6	21.12	19.0
21	HLW 21 R-6A7LF	HLW 21 S-6A7LF	23.6	22.12	20.0
22	HLW 22 R-6A7LF	HLW 22 S-6A7LF	24.6	23.12	21.0
23	HLW 23 R-6A7LF	HLW 23 S-6A7LF	25.6	24.12	22.0
24	HLW 24 R-6A7LF	HLW 24 S-6A7LF	26.6	25.12	23.0
25	HLW 25 R-6A7LF	HLW 25 S-6A7LF	27.6	26.12	24.0
26	HLW 26 R-6A7LF	HLW 26 S-6A7LF	28.6	27.12	25.0
27	HLW 27 R-6A7LF	HLW 27 S-6A7LF	29.6	28.12	26.0
28	HLW 28 R-6A7LF	HLW 28 S-6A7LF	30.6	29.12	27.0
29	HLW 29 R-6A7LF	HLW 29 S-6A7LF	31.6	30.12	28.0
30	HLW 30 R-6A7LF	HLW 30 S-6A7LF	32.6	31.12	29.0
31	HLW 31 R-6A7LF	HLW 31 S-6A7LF	33.6	32.12	30.0
32	HLW 32 R-6A7LF	HLW 32 S-6A7LF	34.6	33.12	31.0

CAT. NO. HLW (n) R - 6A7 LF

SERIES \_\_\_\_\_

NO. OF CONTACTS \_\_\_\_\_

R : RIGHT ANGLE TYPE

S : STRAIGHT TYPE

VARIATION \_\_\_\_\_

LEAD FREE \_\_\_\_\_

NOTES

1. SEE PART DRAWINGS FOR DIMENSIONS A~C.

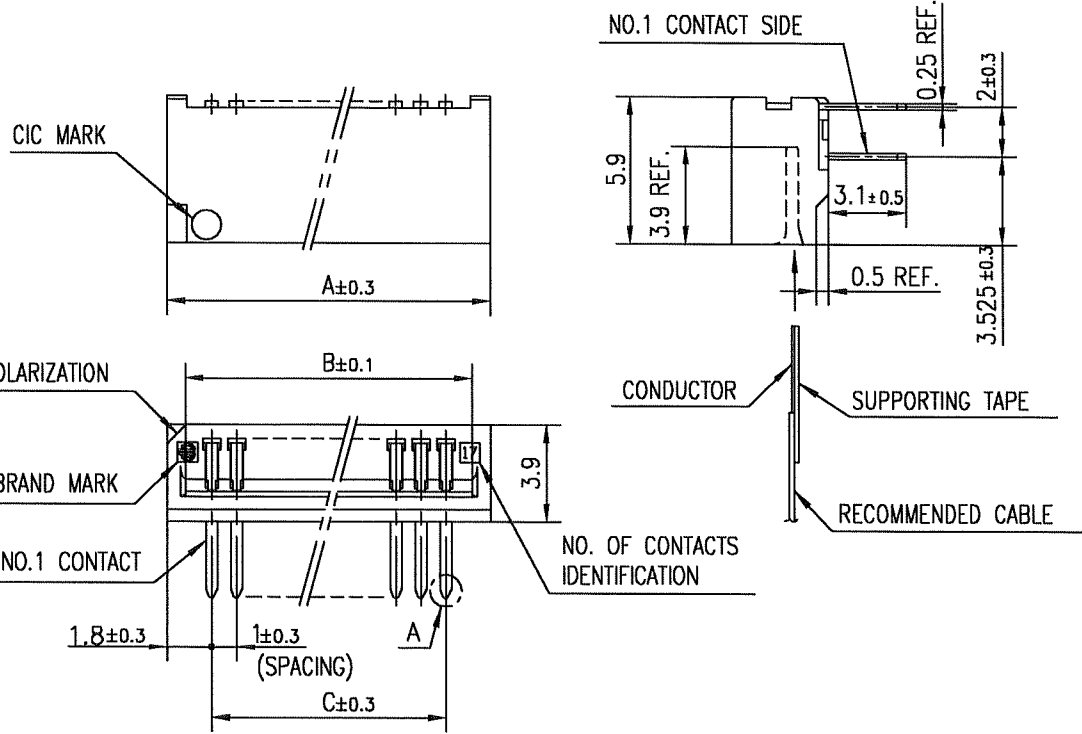
mat'l. code				surface 58 / tolerance ISO 406 / ISO 1302 ✓ / ISO 1101		projection		product family 58PF/QF		CODE JP	
litr ecn no dr date				tolerances unless otherwise specified		mm		title CAT NO. TABLE FOR 1mm SPACING CONNECTOR (Cat. No. HLW__R/S-6A7LF)			
A J05-0775 H.T 11/16/05				angles linear		scale X		dwg no sheet 1 of 1 size			
B J06-0449 H.T 11/2/06						FCI		JSA 96833 A4			
				dr 11/2/06				type Product Customer Drawing			
				enr 11/2/06							
				chr 11/2/06							
				appd 11/9/06							
sheet index		revision B								Rev. B	
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SC-HLW06, JSA96834,96835,93626 Form: A4



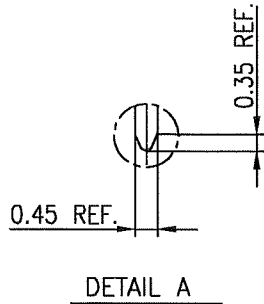
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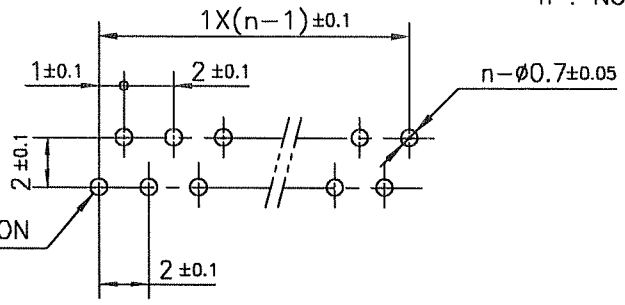


**MATERIAL**  
 INSULATOR : PBT RESIN GLASS REINFORCED (UL94V-0)  
 COLOR : BLACK  
 CONTACT : PHOSPHER BRONZE  
 PLATNG : TIN

**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)

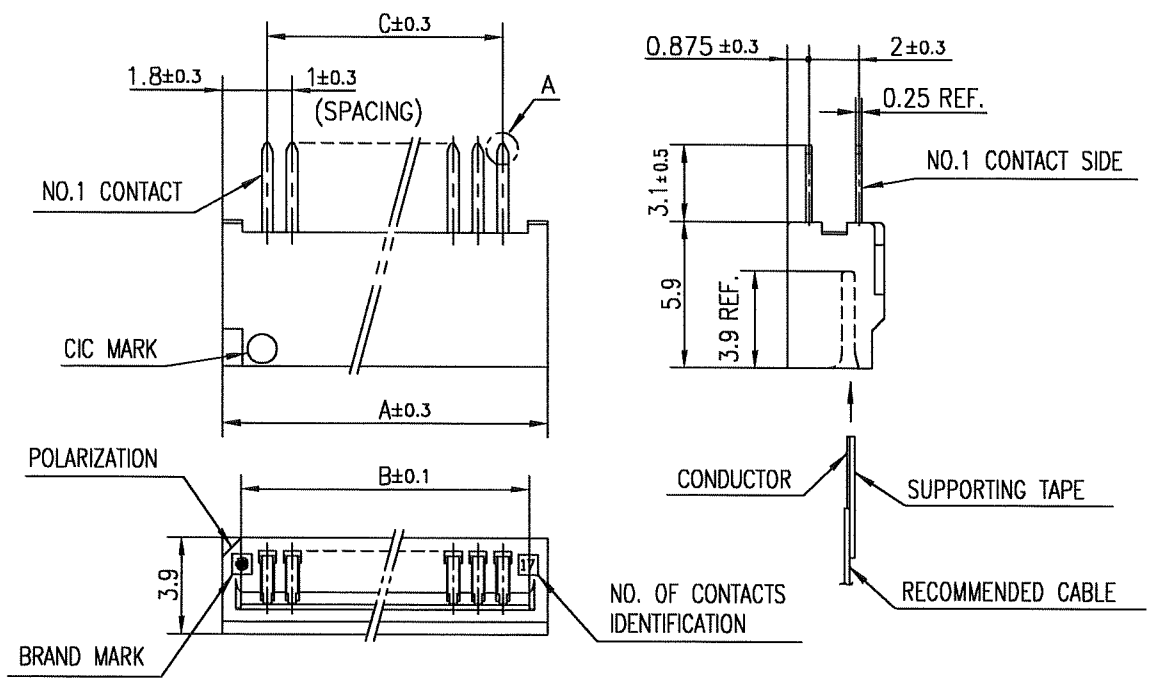


n : NO. OF CONTACTS

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ltr	ecn no	dr	date	tolerances unless otherwise specified				mm		title 1mm SPACING CONNECTOR FOR CIC (Cat. No. HLW_R-6A7LF)			
A	J05-0775	H.T	11/16/'05	angles		±0.2		scale X		dwg no		sheet 1 of 1 size	
B	J06-0449	H.T	11/2/'06	linear				FCI		JSA 96834		A4	
				dr		11/2/06				type		Product Customer Drawing	
				enrg		11/2/06						Rev.	
				chr		11/2/06						B	
				appd		11/17/06						D	
sheet index		revision B											
		sheet 1											

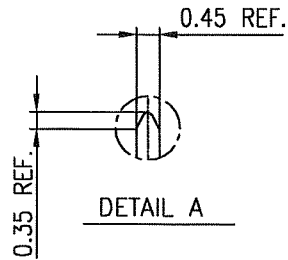
SC-HLW06, JSA96833  
 form: A4





**MATERIAL**  
 INSULATOR : PBT RESIN GLASS REINFORCED (UL94V-0)  
 COLOR : BLACK  
 CONTACT : PHOSPHER BRONZE  
 PLATNG : TIN

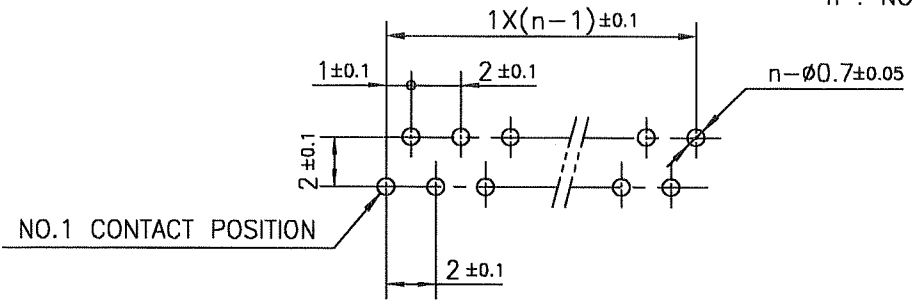
**NOTE**  
 1. THIS PRODUCT IS RIGHT ANGLE TYPE CONNECTOR.  
 2. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.  
 3. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A WAVE SOLDER APPLICATION WITH A 1.6mm THICK CIRCUIT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



**RECOMMENDED PC BOARD**

THICKNESS : 1.2~1.6  
 HOLE PATTERN (COMPONENT SIDE)

n : NO. OF CONTACTS



mat'l. code				surface 58 / tolerance ISO 1302 ✓ ISO 406 ISO 1101		projection		product family 58QF		CODE JP		
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm		title				
A	J05-0775	H.T	11/16/05	±0.2		mm		1mm SPACING CONNECTOR FOR CIC (Cat. No. HLW__S-6A7LF)				
B	J06-0449	H.T	11/2/06	angles	linear	scale X		dwg no JSA 96835 sheet 1 of 1 size A4				
				dr	11/2/06				type Product Customer Drawing			
				enrg	11/2/06							
				chr	11/2/06							
				appd	11/2/06							
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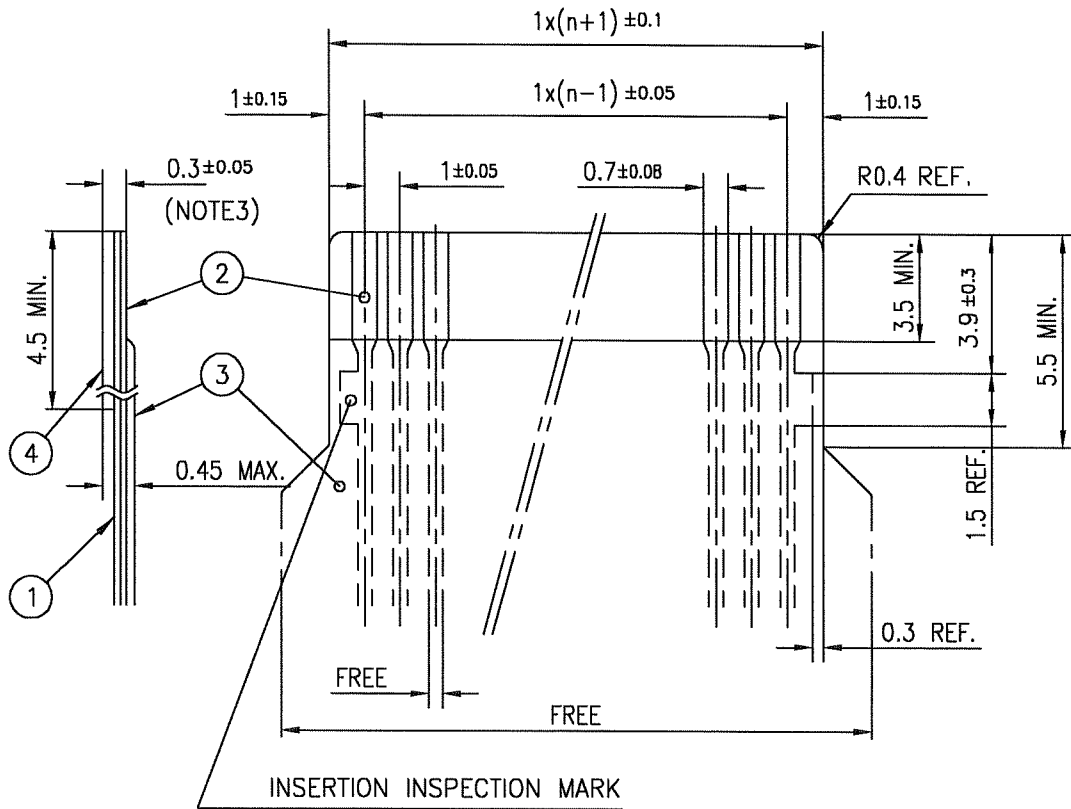


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RECOMMENDED CABLE (CIC)

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		mm	title RECOMMENDED CABLE (CIC) (Cat. No. HLW__R/S-__)	
AA	J05-0270	H.T	5/11/05	angles	linear			
AB	J06-0449	H.T	11/2/06			scale X	dwg no JSA 93626 sheet 1 of 1 size A4	
				dr <i>H. Saito</i> 11/2/06			type Product Customer Drawing	
				enr <i>H. Saito</i> 11/2/06				
				chr <i>K. Shouji</i> 11/2/06				
				appd <i>S. Nakano</i> 11/7/06				
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