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## List of "HFW\_\_R-1/2STE1LF" customer document

| DOCUMENT NO. | LIST                                                                           |
|--------------|--------------------------------------------------------------------------------|
| SC-HFWR02    | SPEC.                                                                          |
| JSA95923     | CAT.NO.TABLE FOR 1mm SPACING SMT CONNECTOR (HFW__R-1/2ST_LF)                   |
| JSA95924     | 1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (HFW__R-1ST_LF)                    |
| JSA95925     | 1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (HFW__R-2ST_LF)                    |
| JSA95926     | CAT.NO.TABLE FOR PLASTIC TAPE PACKAGED 1mm SPACING SMT CONN.(HFW__R-1/2STE1LF) |
| JSA95927     | 1mm SPACING SMT CONNECTOR (HFW__R-1STE1LF)                                     |
| JSA95928     | 1mm SPACING SMT CONNECTOR (HFW__R-2STE1LF)                                     |
| JSA93573     | RECOMMENDED CABLE (FPC) (HFW__R-1/2__)                                         |
| JSA93574     | RECOMMENDED CABLE (FFC) (HFW__R-1/2__)                                         |
| BJM-HFWR101  | HANDLING PROCEDURES                                                            |

|             |  |                |  |                        |  |                                  |  |                                        |  |                                             |  |                          |  |
|-------------|--|----------------|--|------------------------|--|----------------------------------|--|----------------------------------------|--|---------------------------------------------|--|--------------------------|--|
| mat'l. code |  |                |  | surface 58<br>ISO 1302 |  | tolerance<br>ISO 406<br>ISO 1101 |  | projection<br>                         |  | product family 58NF                         |  | CODE JP                  |  |
| ltr         |  | ecn no         |  | dr                     |  | date                             |  | tolerances, unless otherwise specified |  | title                                       |  |                          |  |
| A           |  | J05-0056       |  | H.T                    |  | '05/2/4                          |  | angles                                 |  | 1mm SPACING FPC/FFC CONNECTOR DOCUMENT LIST |  |                          |  |
| B           |  | J06-0413       |  | H.T                    |  | 10/4/'06                         |  | linear                                 |  | (Cat. No. : HFW__R-1/2STE1LF)               |  |                          |  |
|             |  |                |  |                        |  |                                  |  |                                        |  | scale $\propto$                             |  |                          |  |
|             |  |                |  |                        |  |                                  |  |                                        |  | dwg no                                      |  | sheet 1 of 1             |  |
|             |  |                |  |                        |  |                                  |  |                                        |  | JSA 96335                                   |  | size A4                  |  |
|             |  |                |  |                        |  |                                  |  |                                        |  | type                                        |  | Product Customer Drawing |  |
| sheet index |  | revision sheet |  | B                      |  | 1                                |  |                                        |  |                                             |  | Rev. B                   |  |

form: A4

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## 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__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 HFW

NO. OF CONTACTS (n)

RIGHT ANGLE TYPE R

FOR FPC/FFC, CONTACT DIRECTION - 1

1. LOWER CONTACT TYPE

2. UPPER CONTACT TYPE

FOR AUTOMATIC MOUNTING (SMT) ST

PACKAGE STYLE \_\_

LEAD FREE LF

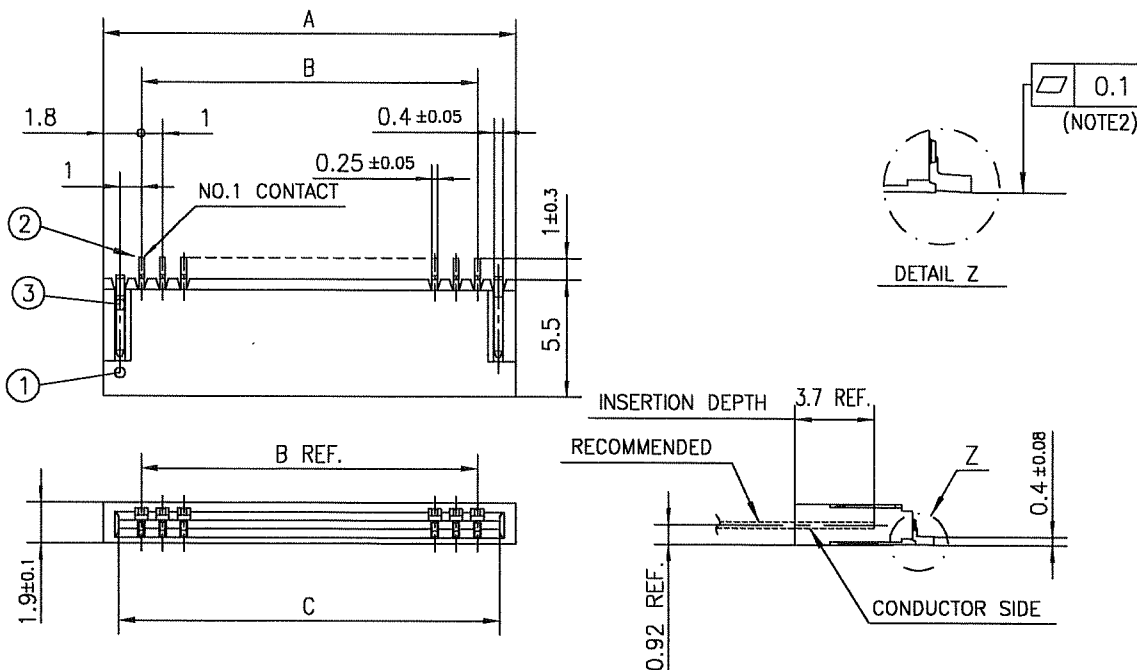
## NOTES

- 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                                                      |  | CODE JP      |      |
| ltr         | ecn no   | dr         | date    | tolerances, unless otherwise specified                 |           | mm         |  | title                                                                    |  |              |      |
| A           | J04-0027 | H.T        | 4/6/04  | angles                                                 | linear    | mm         |  | CAT. NO. TABLE FOR 1mm SPACING SMT CONNECTOR (Cat. No. HFW__R-1/2ST__LF) |  |              |      |
| B           | J05-0056 | H.T        | 2/4/05  |                                                        |           | scale X    |  |                                                                          |  |              |      |
| C           | J06-0413 | H.T        | 10/4/06 |                                                        |           |            |  |                                                                          |  |              |      |
|             |          |            |         | dr                                                     | 10/14/06  | FCI        |  | dwg no                                                                   |  | sheet 1 of 1 | size |
|             |          |            | enr     | 10/14/06                                               | JSA 95923 |            |  | A4                                                                       |  |              |      |
|             |          |            | chr     | 10/12/06                                               |           |            |  |                                                                          |  |              |      |
|             |          |            | appd    | 10/12/06                                               |           |            |  |                                                                          |  |              |      |
| sheet index |          | revision C |         |                                                        |           |            |  | type Product Customer Drawing                                            |  | Rev. C       |      |

SC-HFWR02 JSA95924 95925 95926 95927 95928 93573 93574, 1

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| 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

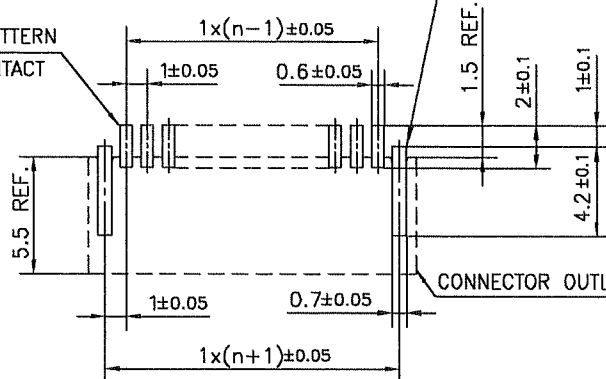
#### NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND 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 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)

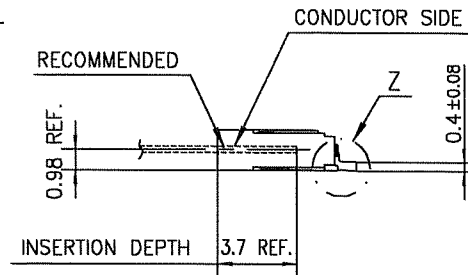
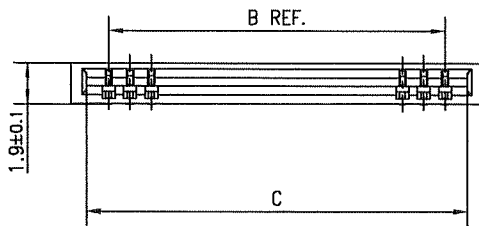
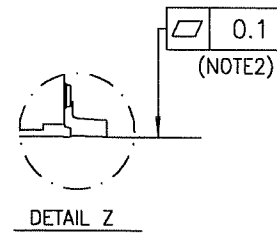
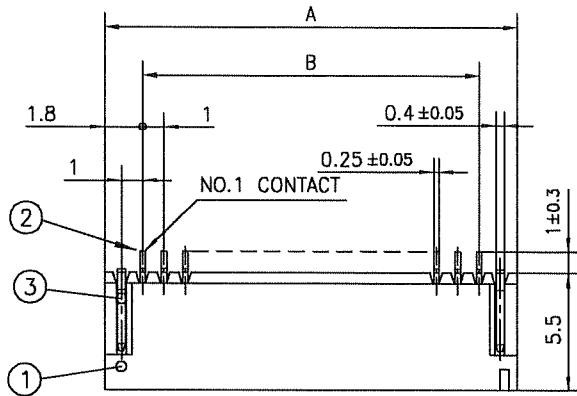
##### BASIC PATTERN

NO.1 CONTACT POSITION



|             |          |     |           |                                        |                   |            |                                                                      |                      |
|-------------|----------|-----|-----------|----------------------------------------|-------------------|------------|----------------------------------------------------------------------|----------------------|
| mat'l. code |          |     |           | surface 58                             | tolerance ISO 406 | projection | product family 58NF                                                  | CODE JP              |
| ltr         | ecn no   | dr  | date      | ISO 1302                               | ISO 1101          |            | 1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat.No. HFW__R-1ST__LF) | sheet 1 of 1 size A4 |
| A           | J04-0027 | H.T | 4/6/'04   | tolerances, unless otherwise specified |                   | mm         |                                                                      |                      |
| B           | J05-0056 | H.T | 2/4/'05   | angles                                 | linear            | mm         |                                                                      |                      |
| C           | J05-0732 | H.T | 10/28/'05 |                                        |                   | scale X    |                                                                      |                      |
| D           | J06-0413 | H.T | 10/4/'06  | dr                                     | 10/14/'06         |            | dwg no                                                               | sheet 1 of 1 size A4 |
|             |          |     |           | enrg                                   | 10/14/'06         |            | JSA 95924                                                            |                      |
|             |          |     |           | chr                                    | 10/14/'06         |            | type Product Customer Drawing                                        |                      |
|             |          |     |           | appd                                   | 10/14/'06         |            |                                                                      |                      |
| sheet index | revision | D   |           |                                        |                   |            |                                                                      | Rev. D               |
|             | sheet    | 1   |           |                                        |                   |            |                                                                      |                      |

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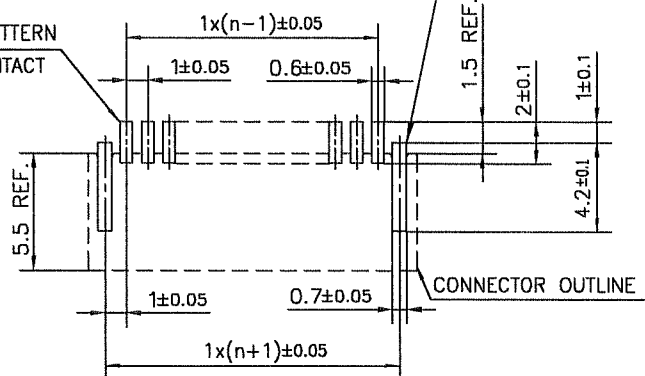


| PT. NO. | PARTS NAME     | MATERIAL                              | Q'TY | NOTE        |
|---------|----------------|---------------------------------------|------|-------------|
| 1       | HOUSING        | PA6T RESIN GLASS REINFORCED (UL94V-0) | 1    | COLOR:BLACK |
| 2       | CONTACT        | PHOSPHOR 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  
POSITION



#### 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.

|             |          |     |           |                                                    |          |            |  |                                                                       |  |         |        |
|-------------|----------|-----|-----------|----------------------------------------------------|----------|------------|--|-----------------------------------------------------------------------|--|---------|--------|
| 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              |          | mm         |  | title                                                                 |  |         |        |
| A           | J04-0027 | H.T | 4/6/'04   | angles                                             | linear   | mm         |  | 1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat. No. HFW__R-2ST__LF) |  |         |        |
| B           | J05-0056 | H.T | 2/4/'05   |                                                    |          | scale X    |  | dwg no                                                                |  |         |        |
| C           | J05-0732 | H.T | 10/28/'05 |                                                    |          |            |  | sheet 1 of 1                                                          |  |         |        |
| D           | J06-0413 | H.T | 10/4/'06  | dr                                                 | 12/4/06  |            |  | size A4                                                               |  |         |        |
|             |          |     |           | enr                                                | 10/4/06  |            |  | JSA 95925                                                             |  |         |        |
|             |          |     |           | chr                                                | 10/12/06 |            |  | type Product Customer Drawing                                         |  |         |        |
|             |          |     |           | appd                                               | 10/12/06 |            |  |                                                                       |  |         |        |
| sheet index | revision | D   |           |                                                    |          |            |  |                                                                       |  |         | Rev. D |
|             | sheet    | 1   |           |                                                    |          |            |  |                                                                       |  |         |        |

SC-HFWR02 JSA95923  
form: A4

## CAT. NO. &amp; DIMENSIONS

| (NOTE4) | NO. OF CONTACTS (n) | CAT. NO. (NOTE2) | DIMENSIONS (NOTE3) |         |         |
|---------|---------------------|------------------|--------------------|---------|---------|
|         |                     |                  | E ± 5              | F ± 0.3 | G ± 0.1 |
|         | 4                   | HFW4R-1/2STE1LF  | 28.4               | 24      | —       |
|         | 5                   | HFW5R-1/2STE1LF  | 28.4               | 24      | —       |
|         | 6                   | HFW6R-1/2STE1LF  | 28.4               | 24      | —       |
|         | 7                   | HFW7R-1/2STE1LF  | 28.4               | 24      | —       |
|         | 8                   | HFW8R-1/2STE1LF  | 28.4               | 24      | —       |
|         | 9                   | HFW9R-1/2STE1LF  | 28.4               | 24      | —       |
|         | 10                  | HFW10R-1/2STE1LF | 28.4               | 24      | —       |
|         | 11                  | HFW11R-1/2STE1LF | 28.4               | 24      | —       |
|         | 12                  | HFW12R-1/2STE1LF | 28.4               | 24      | —       |
|         | 13                  | HFW13R-1/2STE1LF | 28.4               | 24      | —       |
|         | 14                  | HFW14R-1/2STE1LF | 28.4               | 24      | —       |
|         | 15                  | HFW15R-1/2STE1LF | 36.4               | 32      | 28.4    |
|         | 16                  | HFW16R-1/2STE1LF | 36.4               | 32      | 28.4    |
|         | 17                  | HFW17R-1/2STE1LF | 36.4               | 32      | 28.4    |
|         | 18                  | HFW18R-1/2STE1LF | 36.4               | 32      | 28.4    |
|         | 19                  | HFW19R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 20                  | HFW20R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 21                  | HFW21R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 22                  | HFW22R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 23                  | HFW23R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 24                  | HFW24R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 25                  | HFW25R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 26                  | HFW26R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 27                  | HFW27R-1/2STE1LF | 48.4               | 44      | 40.4    |
| *       | 28                  | HFW28R-1/2STE1LF | 48.4               | 44      | 40.4    |
| *       | 29                  | HFW29R-1/2STE1LF | 48.4               | 44      | 40.4    |
|         | 30                  | HFW30R-1/2STE1LF | 60.4               | 56      | 52.4    |

CAT. NO.

HFW (n) R - 1 ST E1 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

LEAD FREE

## NOTES

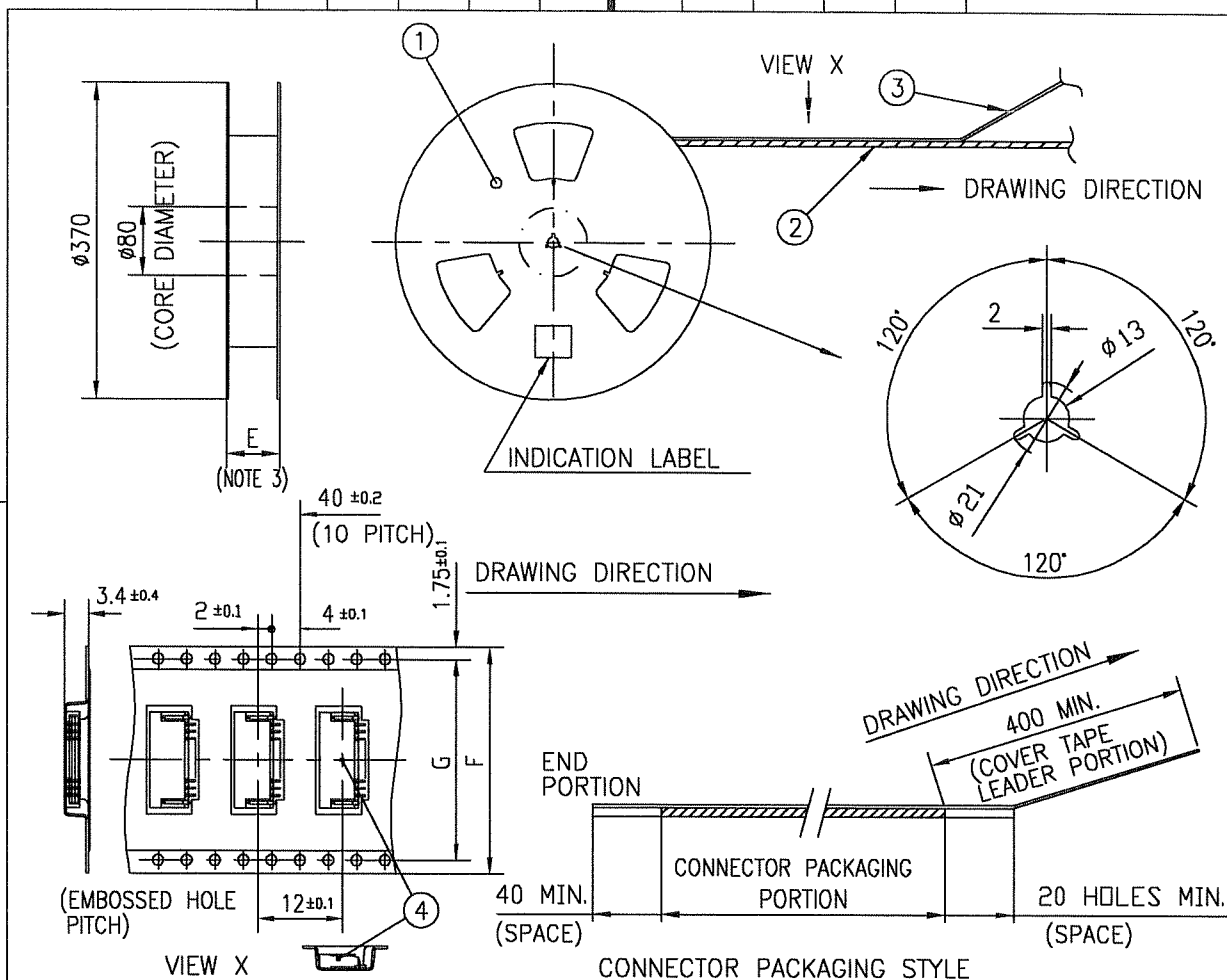
1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPE WITH AUTOMATIC MOUNTING (SMT).
2. THIS CATALOG NO. INDICATES PLASTIC TAPE PACKAGED CONNECTOR.
3. SEE PART DRAWINGS FOR DIMENSIONS E~G.
4. PLEASE CONSULT US IN CASE OF USING PARTS WITH \* MARK.

|             |          |            |         |                                        |          |                            |  |            |  |                                                                                           |           |         |                          |        |
|-------------|----------|------------|---------|----------------------------------------|----------|----------------------------|--|------------|--|-------------------------------------------------------------------------------------------|-----------|---------|--------------------------|--------|
| 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                                                                                     |           |         |                          |        |
| A           | J04-0027 | H.T        | 4/6/04  | angles linear                          |          |                            |  | mm         |  | CAT. NO. TABLE FOR PLASTIC TAPE PACKAGED 1mm SPACING SMT CONN. (Cat.No. HFW__R-1/2STE1LF) |           |         |                          |        |
| B           | J05-0056 | H.T        | 2/4/05  |                                        |          |                            |  |            |  |                                                                                           |           |         |                          |        |
| C           | J06-0413 | H.T        | 10/4/06 |                                        |          |                            |  | scale X    |  |                                                                                           |           |         |                          |        |
|             |          |            |         | dr                                     | 10/4/06  |                            |  |            |  |                                                                                           | dwg no    |         | sheet 1 of 1             | size   |
|             |          |            |         | enrg                                   | 10/4/06  |                            |  |            |  |                                                                                           | JSA 95926 |         | A4                       |        |
|             |          |            |         | chr                                    | 10/12/06 |                            |  |            |  |                                                                                           | type      |         | Product Customer Drawing |        |
|             |          |            |         | appd                                   | 10/12/06 |                            |  |            |  |                                                                                           |           |         |                          |        |
| sheet index |          | revision C |         | sheet 1                                |          |                            |  |            |  |                                                                                           |           |         |                          | Rev. C |

SC-HFWR02 JSA95923 95927 95928 form: A4

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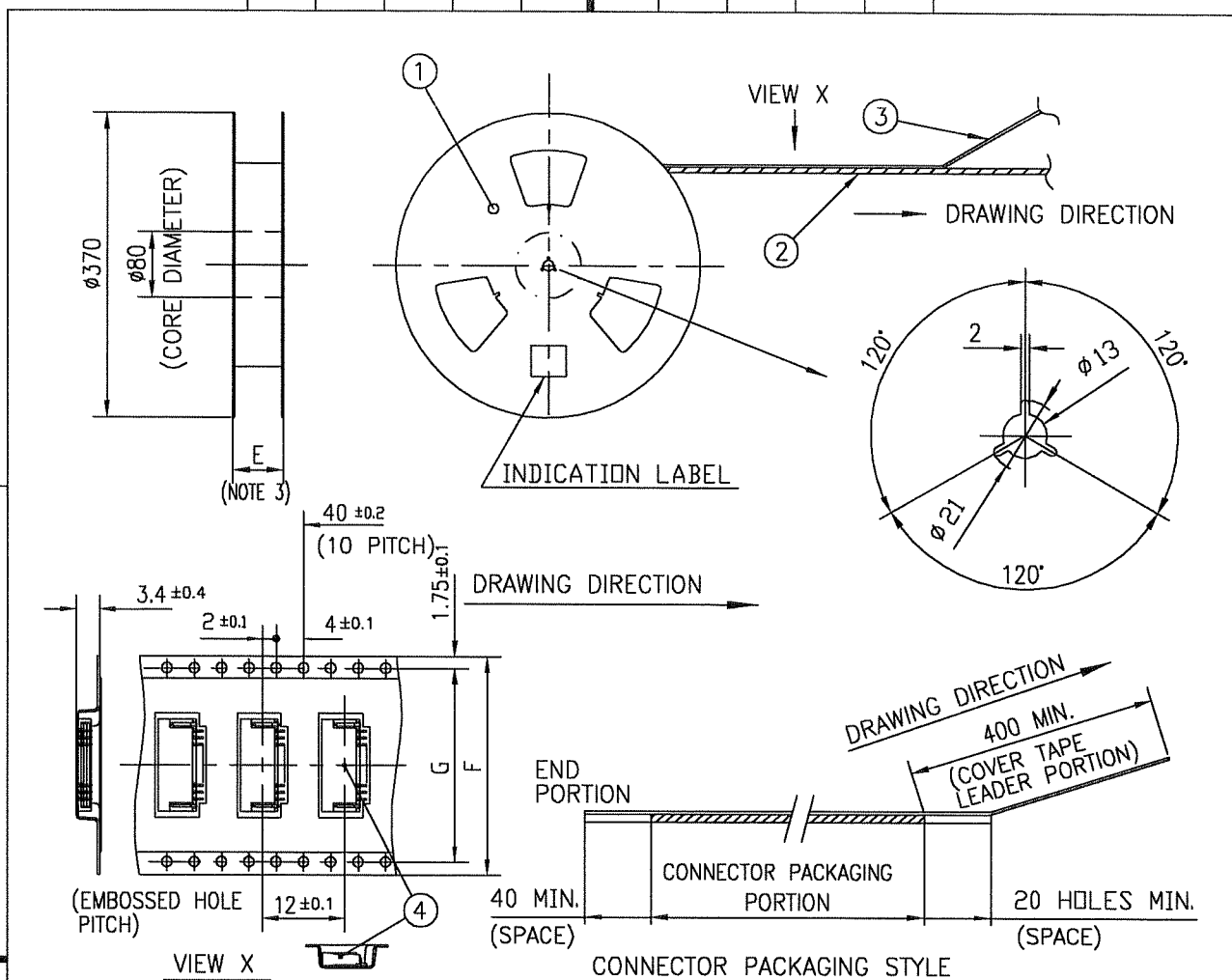
| PT. NO. | PARTS NAME              | CAT. NO.       | MATERIAL          | Q'TY | NOTE               |
|---------|-------------------------|----------------|-------------------|------|--------------------|
| 1       | REEL                    | —              | CARDBOARD         | 1    | COLOR:WHITE        |
| 2       | PLASTIC (EMBOSSED) TAPE | —              | PET               | —    | COLOR:TRANSPARENCY |
| 3       | COVER                   | —              | POLYESTER         | —    | COLOR:TRANSPARENCY |
| 4       | CONNECTOR               | HFW__R-1ST__LF | 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 (EMBOSSED) TAPE AND REEL.
- E DIMENSION IS PORTION OF THE CORE.

|             |          |     |         |                                       |                   |            |                               |         |
|-------------|----------|-----|---------|---------------------------------------|-------------------|------------|-------------------------------|---------|
| mat'l. code |          |     |         | surface 58                            | tolerance ISO 406 | projection | product family 58NF           | CODE JP |
|             |          |     |         | ISO 1302                              | ISO 1101          |            |                               |         |
| ltr         | ecn no   | dr  | date    | tolerances unless otherwise specified |                   |            | title                         |         |
| A           | J04-0027 | H.T | 4/6/04  | angles                                | linear            | mm         | 1mm SPACING SMT CONNECTOR     |         |
| B           | J05-0056 | H.T | 2/4/05  |                                       |                   |            | (Cat.No. HFW__R-1STE1LF)      |         |
| C           | J06-0413 | H.T | 10/4/06 | $\pm 5^\circ$                         |                   | scale X    | dwg no sheet 1 of 1 size      |         |
|             |          |     |         | dr                                    |                   | FCJ        | JSA 95927                     |         |
|             |          |     |         | enr                                   |                   |            |                               |         |
|             |          |     |         | chr                                   |                   |            |                               |         |
|             |          |     |         | appd                                  |                   |            | type Product Customer Drawing |         |
| sheet index | revision | C   |         |                                       |                   |            |                               | Rev. C  |
|             | sheet    | 1   |         |                                       |                   |            |                               |         |

SC-HFWR02 JSA95926  
form: A4



| 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-2ST__-LF | SEE ATTACHED DWG. | 2000 | UPPER CONTACT TYPE |

#### NOTES

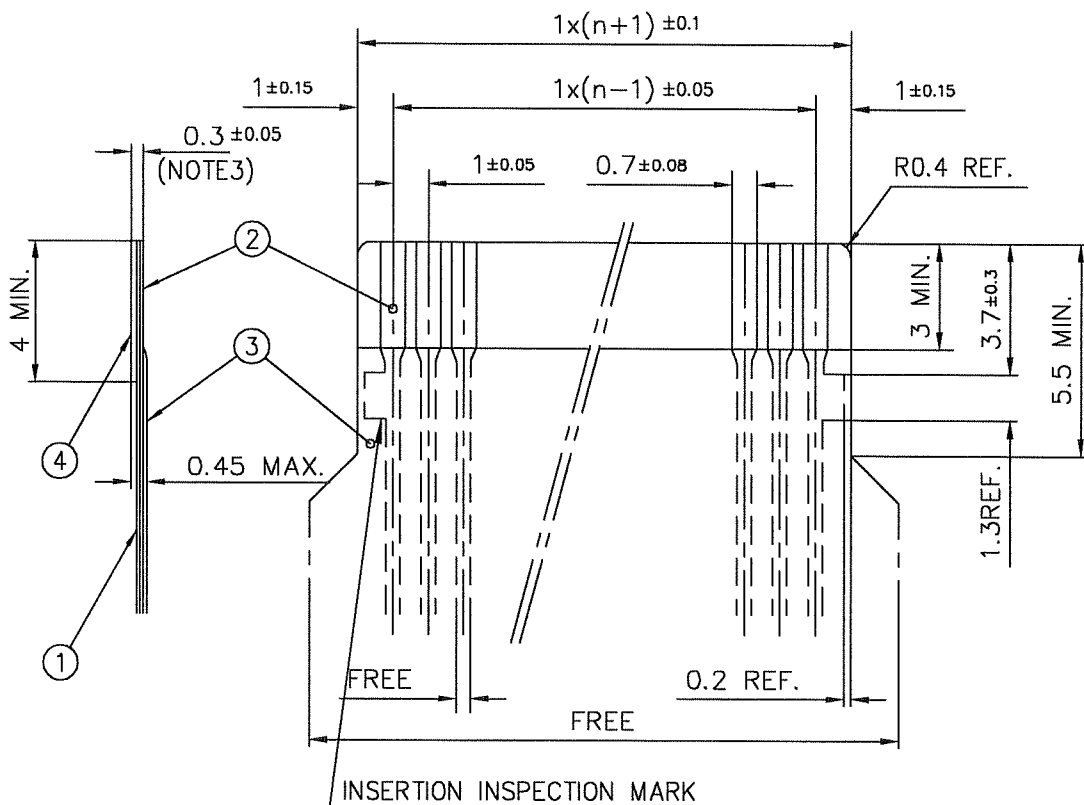
- THIS IS PLASTIC TAPE PACKAGED CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPEs WITH AUTOMATIC MOUNTING (SMT).
- SEE JIS C 0806 (PACKING OF ELECTRONIC COMPONENTS ON CONTINUOUS TAPES (SURFACE MOUNTING DEVICES)) FOR SHAPE AND DIMENSIONS OF PLASTIC (EMBOSSD) TAPE AND REEL.
- E DIMENSION IS PORTION OF 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                         |  | mm         |  | title                     |  |                          |
| A           | J04-0027 | H.T        | 4/6/'04  | angles                                |  | ±5                         |  | mm         |  | 1mm SPACING SMT CONNECTOR |  |                          |
| B           | J05-0056 | H.T        | 2/4/'05  | linear                                |  |                            |  |            |  | (Cat.No. HFW__R-2STE1LF)  |  |                          |
| C           | J06-0413 | H.T        | 10/4/'06 | ±5'                                   |  |                            |  | scale X    |  |                           |  |                          |
|             |          |            |          | dr                                    |  | 12/14/06                   |  | FCI        |  | dwg no                    |  | sheet 1 of 1             |
|             |          |            |          | enr                                   |  | 10/14/06                   |  |            |  | JSA 95928                 |  | size A4                  |
|             |          |            |          | chr                                   |  | 10/12/06                   |  |            |  | type                      |  | Product Customer Drawing |
|             |          |            |          | appd                                  |  | 10/12/06                   |  |            |  |                           |  |                          |
| sheet index |          | revision C |          | sheet 1                               |  |                            |  |            |  |                           |  | Rev. C                   |

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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 58NF                          |  | CODE JP |  |
| ltr         | ecn no         | dr  | date     | tolerances unless otherwise specified                  |           | mm         |  | title                                        |  |         |  |
| A           | J06-0413       | H.T | 10/4/'06 |                                                        |           | scale X    |  | RECOMMENDED CABLE<br>(Cat. No. HFW__R-1/2__) |  |         |  |
|             |                |     |          | angles                                                 | linear    |            |  | dwg no                                       |  |         |  |
|             |                |     |          |                                                        |           |            |  | sheet 1 of 1                                 |  |         |  |
|             |                |     |          | dr                                                     | 10/14/'06 |            |  | JSA 93573                                    |  |         |  |
|             |                |     | enr      | 10/14/'06                                              | size A4   |            |  |                                              |  |         |  |
|             |                |     | chr      | 10/12/'06                                              |           |            |  |                                              |  |         |  |
|             |                |     | appd     | 10/12/'06                                              |           |            |  |                                              |  |         |  |
| sheet index | revision sheet | A   | 1        | type Product Customer Drawing                          |           |            |  |                                              |  |         |  |

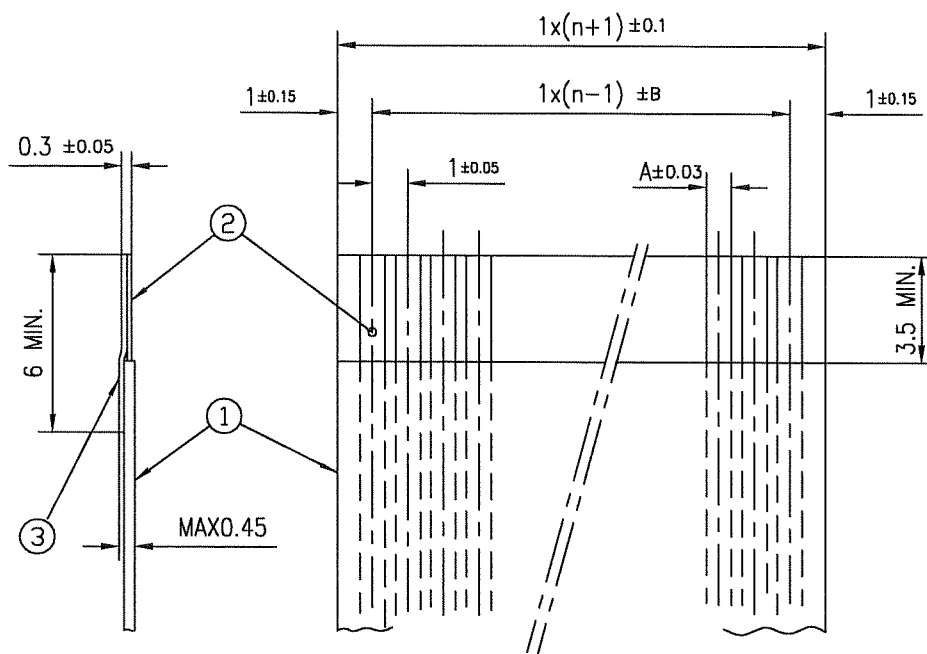
form: A4

1

2

# 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<br>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/ISO 1302                   |  | tolerance ISO 406/ISO 1101 |  | projection |  | product family 58NF     |  | CODE JP                  |  |
| ltr         | ecn no   | dr             | date     | tolerances unless otherwise specified |  |                            |  | mm         |  | title                   |  |                          |  |
| 1           | ---      | T.M            | 4/30/'02 | angles linear                         |  |                            |  | mm         |  | RECOMMENDED CABLE       |  |                          |  |
| A           | J06-0413 | H.T            | 10/4/'06 |                                       |  |                            |  | scale X    |  | (Cat. No. HFW__R-1/2__) |  |                          |  |
|             |          |                |          | dr                                    |  | 10/12/06                   |  | FCI        |  | dwg no                  |  | sheet 1 of 1             |  |
|             |          |                |          | enr                                   |  | 10/14/06                   |  |            |  | JSA 93574               |  | size A4                  |  |
|             |          |                |          | chr                                   |  | 10/12/06                   |  |            |  | type                    |  | Product Customer Drawing |  |
|             |          |                |          | appd                                  |  | 10/12/06                   |  |            |  |                         |  |                          |  |
| sheet index |          | revision sheet |          | A                                     |  | 1                          |  |            |  |                         |  | Rev. A                   |  |

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