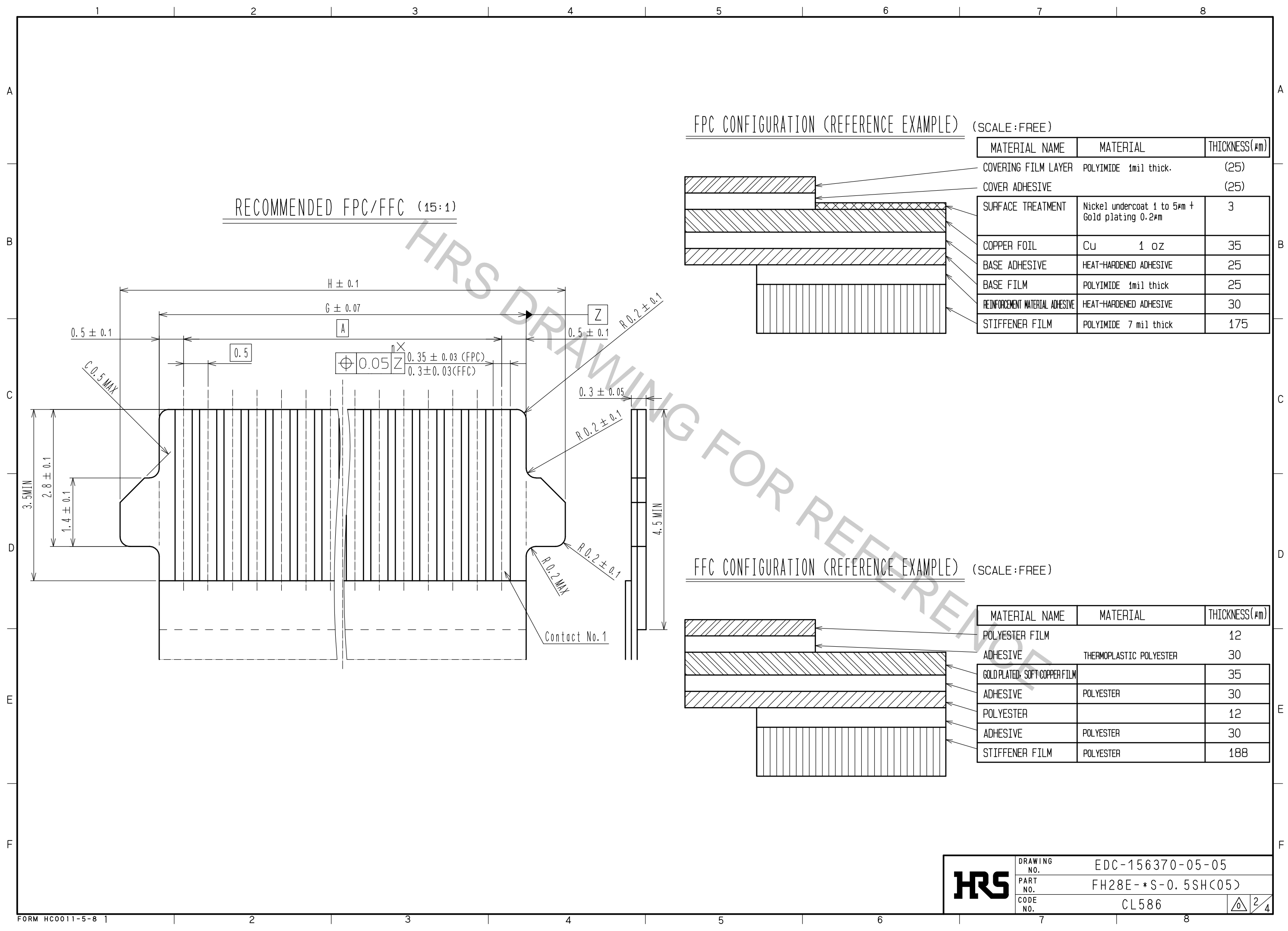


- NOTES
- ① Lead CO-PLANARITY including reinforced metal fittings shall be 0.1 MAX.
  - ② Dimension: from reference b.
  - ③ Indicates notches or holes to prevent sink marks. The design and the location are discretionary, depending on the number of contacts.
  - 4. This product satisfies halogen free requirements defined as 900ppm maximum chlorine, 900ppm maximum bromine, and 1500ppm maximum total of chlorine and bromine.
  - 5. 'n' represents the number of contacts.
  - 6. The dimensions in parentheses are for reference.

| 5                                | BRASS           | TIN PLATING 1#mMIN OVER NICKEL 1#mMIN     |               |             |                          |                     |         |      |
|----------------------------------|-----------------|---|---------------|-------------|--------------------------|---------------------|---------|------|
| 4                                | BRASS           | TIN PLATING 1#mMIN OVER NICKEL 1#mMIN     | 9             | (CONNECTOR) |                          |                     |         |      |
| 3                                | PHOSPHOR BRONZE | GOLD PLATING 0.05#mMIN OVER NICKEL 1#mMIN | 8             | POLYSTYRENE |                          |                     |         |      |
| 2                                | LCP             | (BLACK) UL94V-0                           | 7             | POLYESTER   |                          |                     |         |      |
| 1                                | LCP             | (GRAY) UL94V-0                            | 6             | POLYSTYRENE |                          |                     |         |      |
| NO.                              | MATERIAL        | FINISH . REMARKS                          | NO.           | MATERIAL    | FINISH . REMARKS         |                     |         |      |
| UNITS                            | mm              | SCALE                                     | 5 : 1         | COUNT       | DESCRIPTION OF REVISIONS | DESIGNED            | CHECKED | DATE |
| <b>HIROSE ELECTRIC CO., LTD.</b> |                 | APPROVED                                  | ·NF. MIYAZAKI | 15.10.17    | DRAWING NO.              | EDC-156370-05-05    |         |      |
|                                  |                 | CHECKED                                   | ·HS. SAKAMOTO | 15.10.17    | PART NO.                 | FH28E-*S-0.5SH(C05) |         |      |
|                                  |                 | DESIGNED                                  | ·RT. IKEDA    | 15.10.17    | CODE NO.                 | CL586               |         |      |
|                                  |                 | DRAWN                                     | ·RN. IIDA     | 15.10.15    |                          |                     |         |      |

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RECOMMENDED FPC/FFC (15:1)

FPC CONFIGURATION (REFERENCE EXAMPLE) (SCALE:FREE)

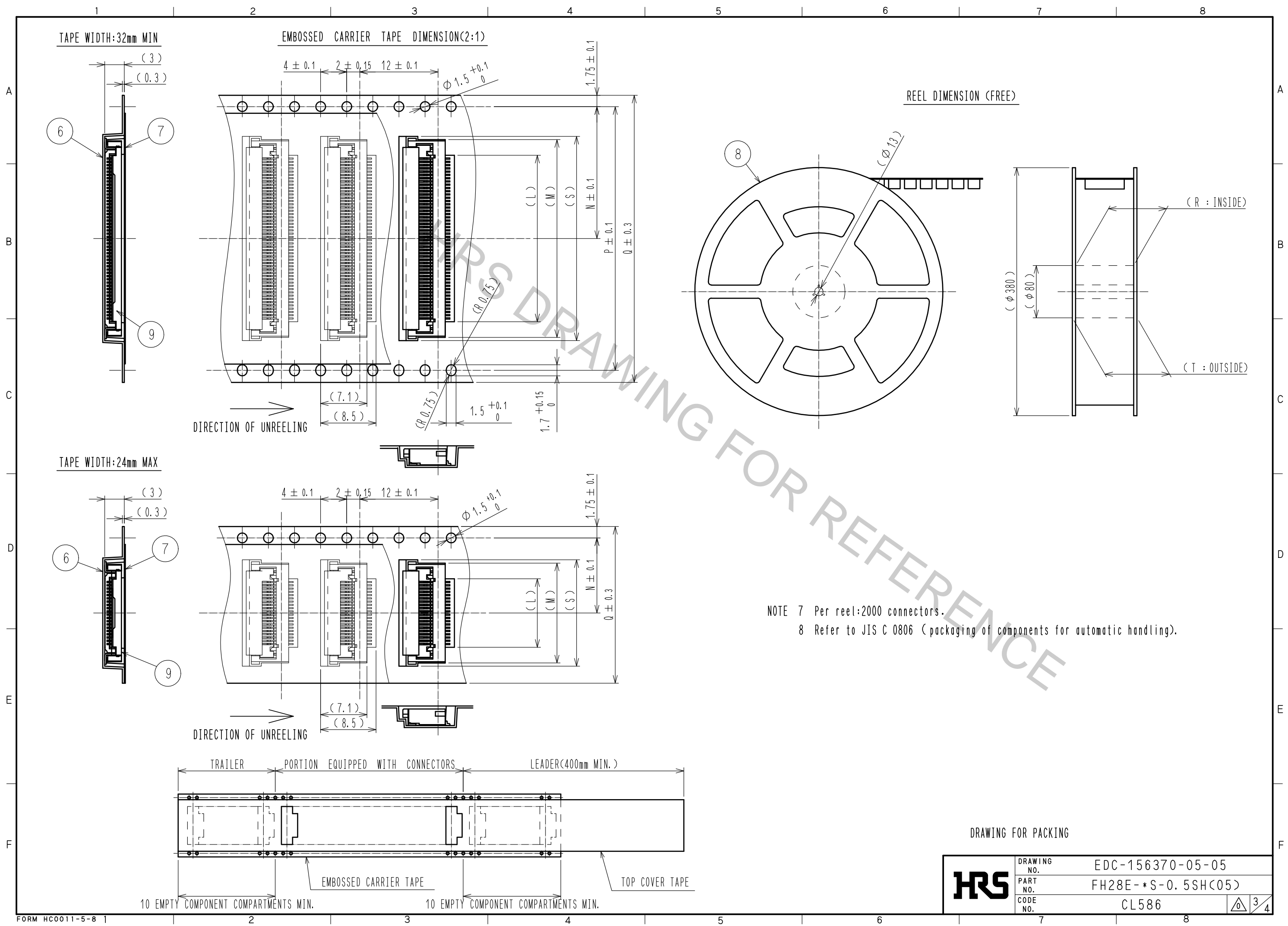
| MATERIAL NAME                   | MATERIAL                                       | THICKNESS(μm) |
|---------------------------------|--|---------------|
| COVERING FILM LAYER             | POLYIMIDE 1mil thick.                          | (25)          |
| COVER ADHESIVE                  |  | (25)          |
| SURFACE TREATMENT               | Nickel undercoat 1 to 5μm + Gold plating 0.2μm | 3             |
| COPPER FOIL                     | Cu 1 oz  | 35            |
| BASE ADHESIVE                   | HEAT-HARDENED ADHESIVE                         | 25            |
| BASE FILM                       | POLYIMIDE 1mil thick                           | 25            |
| REINFORCEMENT MATERIAL ADHESIVE | HEAT-HARDENED ADHESIVE                         | 30            |
| STIFFENER FILM                  | POLYIMIDE 7 mil thick                          | 175           |

FFC CONFIGURATION (REFERENCE EXAMPLE) (SCALE:FREE)

| MATERIAL NAME                | MATERIAL                | THICKNESS(μm) |
|------------------------------|-------------------------|---------------|
| POLYESTER FILM               |                         | 12            |
| ADHESIVE                     | THERMOPLASTIC POLYESTER | 30            |
| GOLD PLATED SOFT COPPER FILM |                         | 35            |
| ADHESIVE                     | POLYESTER               | 30            |
| POLYESTER                    |                         | 12            |
| ADHESIVE                     | POLYESTER               | 30            |
| STIFFENER FILM               | POLYESTER               | 188           |

|            |             |                    |
|------------|-------------|--------------------|
| <b>HRS</b> | DRAWING NO. | EDC-156370-05-05   |
|            | PART NO.    | FH28E-*S-0.5SH<05> |
|            | CODE NO.    | CL586              |

2/4



1 2 3 4 5 6 7 8

A  
B  
C  
D  
E  
F

A  
B  
C  
D  
E  
F

HRS DRAWING REFERENCE

| PART NO.              | CODE NO.        | Number of contact | DIMENSION TABLE OF CONNECTOR, FPC, FFC, LAND PATTERN AND STENCIL PATTERN |      |       |       |       |      |      |      |      |    | DIMENSION TABLE OF DRAWING FOR PACKING |      |      |      |    |      |      |      |
|-----------------------|-----------------|-------------------|--|------|-------|-------|-------|------|------|------|------|----|--|------|------|------|----|------|------|------|
|                       |                 |                   | A  | B    | C     | D     | E     | F    | G    | H    | J    | K  | L                                      | M    | N    | P    | Q  | R    | T    | S    |
| FH28E-20S-0.5SH(05)   | CL580-1822-2-05 | 20                | 9.5  | 14.9 | 10.57 | 11.15 | 12.35 | 15.7 | 10.5 | 12.1 | 16.7 | 12 | 10.5                                   | 15.3 | 11.5 | -    | 24 | 25.4 | 29.4 | 16.3 |
| FH28E-30S-0.5SH(05)   | CL580-1833-9-05 | 30                | 14.5   | 19.9 | 15.57 | 16.15 | 17.35 | 20.7 | 15.5 | 17.1 | 21.7 | 17 | 15.5                                   | 20.3 | 14.2 | 28.4 | 32 | 33.4 | 37.4 | 21.3 |
| ⑨ FH28E-40S-0.5SH(07) | CL580-1814-4-07 | 40                | 19.5   | 24.9 | 20.57 | 21.15 | 22.35 | 25.7 | 20.5 | 22.1 | 26.7 | 22 | 20.5                                   | 25.3 | 20.2 | 40.4 | 44 | 45.4 | 49.4 | 26.3 |
| FH28E-50S-0.5SH(05)   | CL580-1815-7-05 | 50                | 24.5   | 29.9 | 25.57 | 26.15 | 27.35 | 30.7 | 25.5 | 27.1 | 31.7 | 27 | 25.5                                   | 30.3 | 20.2 | 40.4 | 44 | 45.4 | 49.4 | 31.3 |
| FH28E-60S-0.5SH(05)   | CL580-1834-1-05 | 60                | 29.5   | 34.9 | 30.57 | 31.15 | 32.35 | 35.7 | 30.5 | 32.1 | 36.7 | 32 | 30.5                                   | 35.3 | 26.2 | 52.4 | 56 | 57.4 | 61.4 | 36.3 |
| FH28E-68S-0.5SH(05)   | CL580-1841-7-05 | 68                | 33.5   | 38.9 | 34.57 | 35.15 | 36.35 | 39.7 | 34.5 | 36.1 | 40.7 | 36 | 34.5                                   | 39.3 | 26.2 | 52.4 | 56 | 57.4 | 61.4 | 40.3 |

⑨ : The specification of (07) is applied to FH28E-40S-0.5SH.

|     |             |                    |
|-----|-------------|--------------------|
| HRS | DRAWING NO. | EDC-156370-05-05   |
|     | PART NO.    | FH28E-*S-0.5SH(05) |
|     | CODE NO.    | CL586              |
|     |             | ④ 4/4              |