

Hirose Korea FFC To Board Connector

TF13-Series

목 차

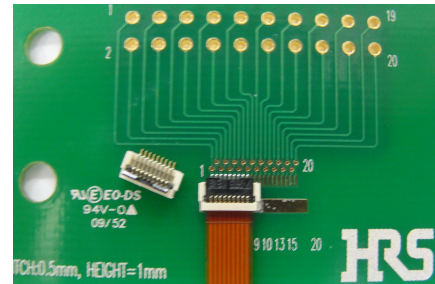
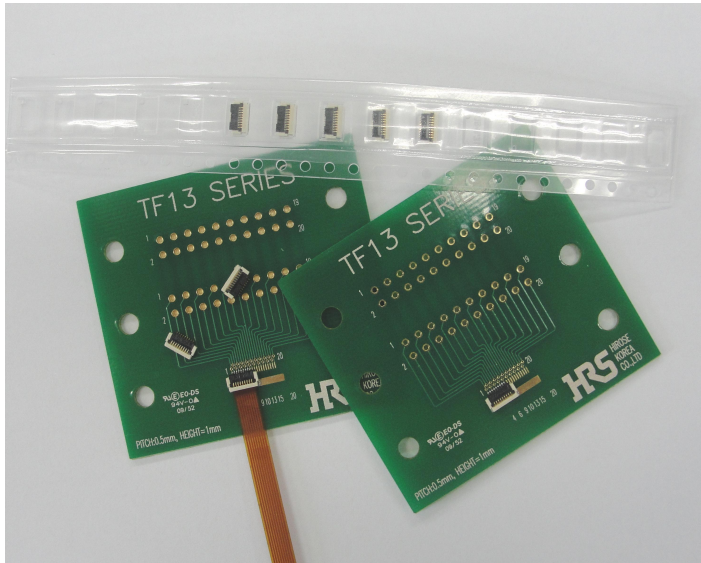
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No.	제 품 명	Pin 수	사양	관련 page
1	TF13-9S-0.4SH	9	0.4 Pitch , 0.9mm 높이/	4~5

- 5.Reflow profile (Lead-free)-----page 6

TF13 - SERIES

0.4mm PITCH Back-Flip Type, 1 열 하(下) 접점방식 FFC To Board CONNECTOR



■ 특징

1. **LOW PROFILE** 제품에서 높은 **FPC 발거력 / MISS ALIGN** 방지

- 1) 돌기형 FPC말단 형상과 SLIDER의 돌기형 HOOK가 체결시 결합하는 구조로 FPC발거력 향상 구현
- 2) 체결시 결합 구조로 FPC오삽입 등에 의한 CONTACT MISS ALIGN방지

2. **BACK-FLIP** 방식에 의한 우수한 작업성 / 접촉 신뢰성 향상

- 1) BACK-FLIP방식 채택으로 FRONT-FLIP방식 대비 실장후 FPC체결 작업시 우수한 작업성 실현
- 2) BACK-FLIP방식은 FPC 수직 발거방향과 SLIDER OPEN방향이 서로 역방향으로 장기적인 접촉 신뢰성을 향상시킴.

3. **LOW PROFILE** 제품에서 우수한 **FPC**삽입 작업성

- 1) FPC삽입구 폭(두께 방향)은 MIN. 0.32로 0.2t FPC 사용시 60% 마진 확보

4. 개별 단자와 **SLIDER**의 결합구조로 **SLIDER**이탈 현상 방지

5. 단자와 금구의 전/후 **PATTERN**으로 납땜 **BALANCE** 및 **PCB**고정 강도 향상

6. 단자의 **Ni BARRIER**도금으로 **LOW PROFILE** 제품에서의 **FLUX**오름 방지

- 1) CONTACT부 및 LEAD부(SOLDER부) Au도금, 중간부 Ni BARRIER도금 적용으로 납땜시 FLUX오름에 의한 접촉 불량현상 방지

7. **CASE** 상측, **SLIDER** 등면을 확용한 실장 흡착으로 **PICK-UP ERROR** 감소

■ 용도

- NOTE PC LED BLU Interconnecting.
- Compact devices for interconnecting the main circuite board with the HHP, LCD, PDA, HDD or other device.

■ 제품 규격

Rating	Current 0.5A	Operating temperature range	Storage temperature range
	Voltage 50V	- 55 °C ~ + 85 °C	- 10 °C ~ + 50 °C

Item	Specification	Conditions
1.Insulation Resistance	500MΩ Min	Measured at 100V DC
2.Withstand voltage	Neither shot or insulation beakdown	150V AC for 1 minute
3.Contact Resistance	100m Max	Measured at 1mA(or 1,000Hz)
4.FPC Retention Force	Ver.:130gf MIN/Hor.:130gf MIN	Measure at 0.2±0.03mm FPC
5.Mechanical operation	Contact Resistance : 100m Max	20 Time insertions and extractions.
6.Moisture Resistance	Temperature : 40±2°C	Contact Resistance : 100m Max Insulation Resistance : 50M Min
	Relative Humidity : 90 ~ 95%	
	Duration : 96Hr	
7.Resistance to Soldering heat	Reflow : 217°C MIN. 90~120s, 245±5°C 30±5s	No deformation of components affecting performance.

■ 부품별 적용 원재료

Part	Material	Finish	Remarks
CASE	LCP	NATURAL(Beige)	UL94V-0
SLIDER	LCP	BLACK	UL94V-0
Contact	Phosphor Bronze	Gold plating over Ni	Ni Barrier
Metal Fitting	Phosphor Bronze	Sn plating over Ni	-

※ Reflow최대 온도 260°C를 만족시킴으로 Lead-free Soldering의 요구조건에 적합한 제품임.

※ RoHS지침 및 유해 물질 관리 기준에 적합한 제품임.

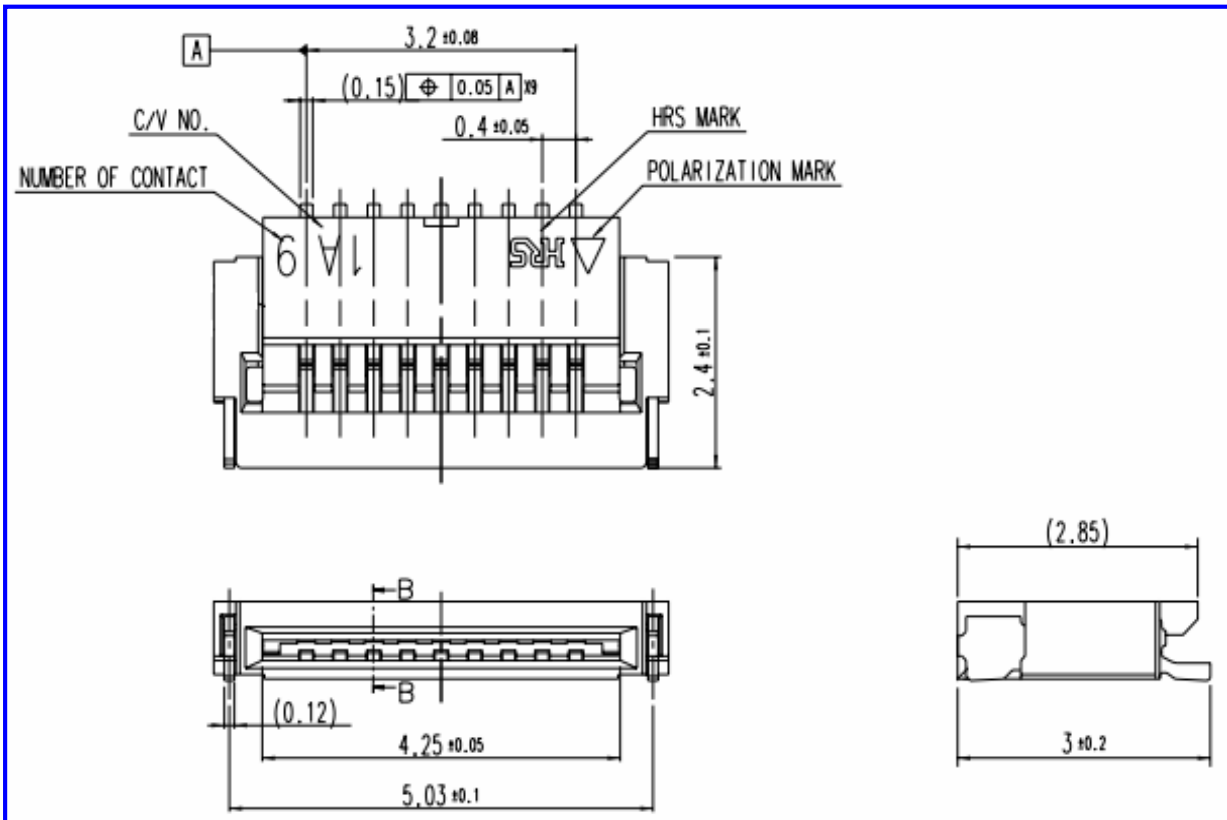
■ Part Number의 구성

TF 13 # - ** S - 0.4 SH

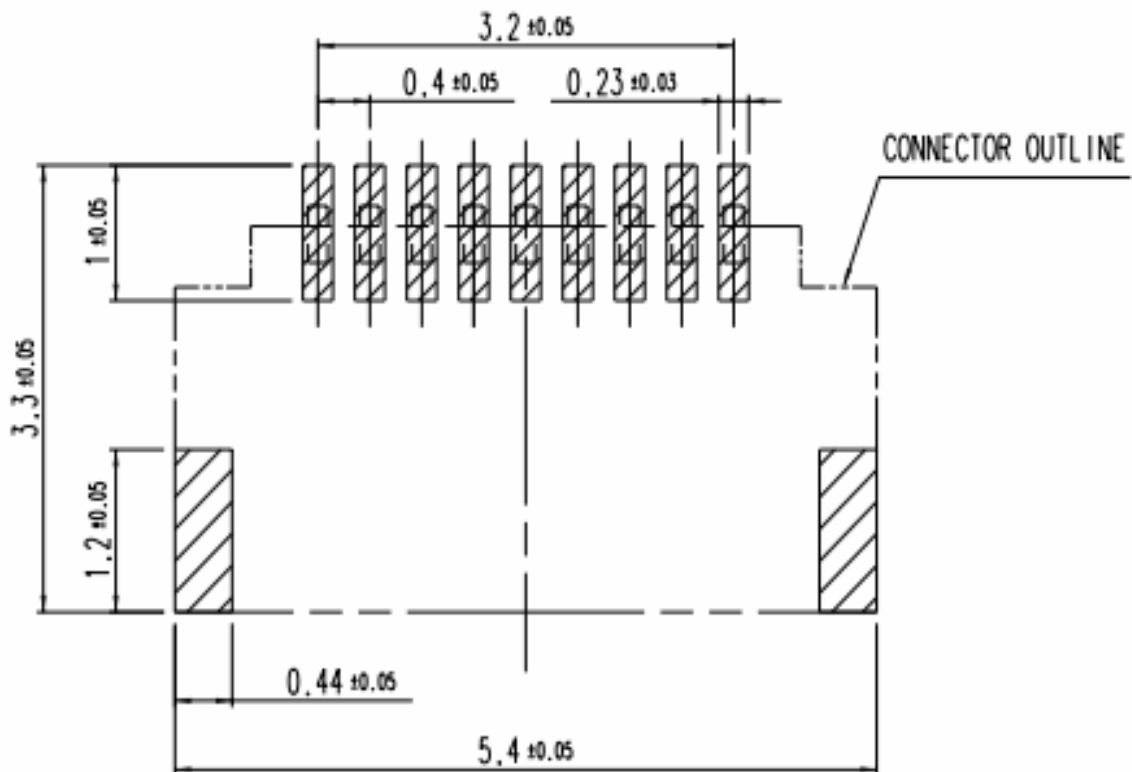
① ② ③ ④ ⑤ ⑥ ⑦

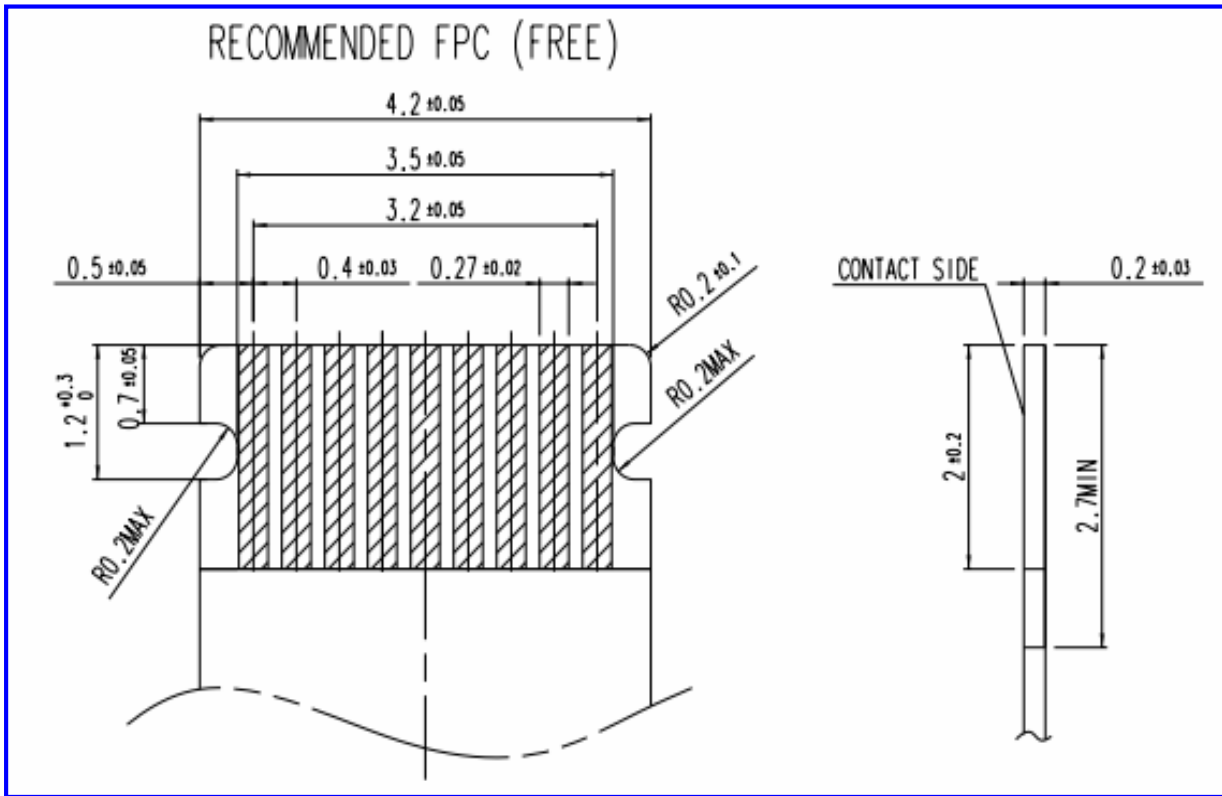
①	Serial Name	TF
②	Serial No.	13
③	Blank	Standard type
④	Contact 수	9 Cotacts
⑤	Contact 분류	S : Socket
⑥	Contact Pitch	0.4mm
⑦	Contact type	SH(SMT horizontal mount type)

■ TF13-SERIES

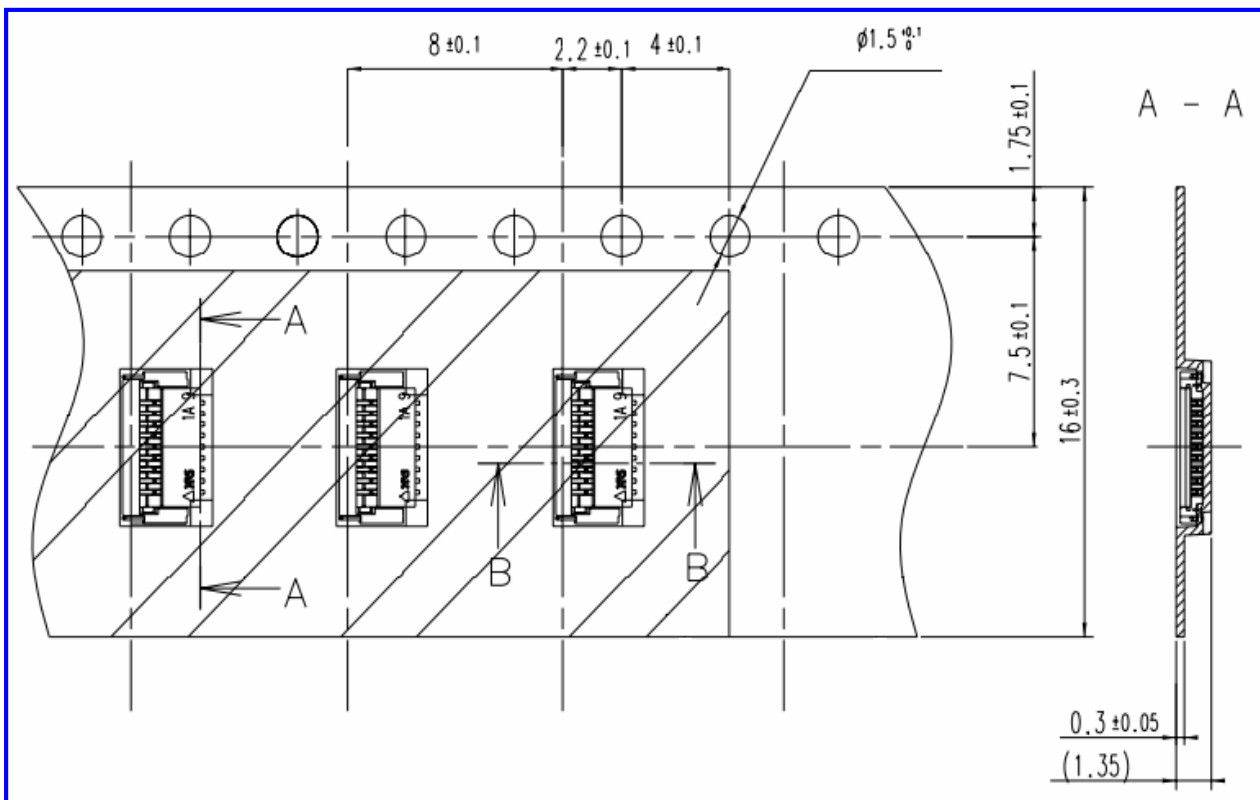


RECOMMENDED LAND PATTERN, METAL MASK (FREE)
RECOMMENDED METAL MASK THICKNESS: $t=0.10$



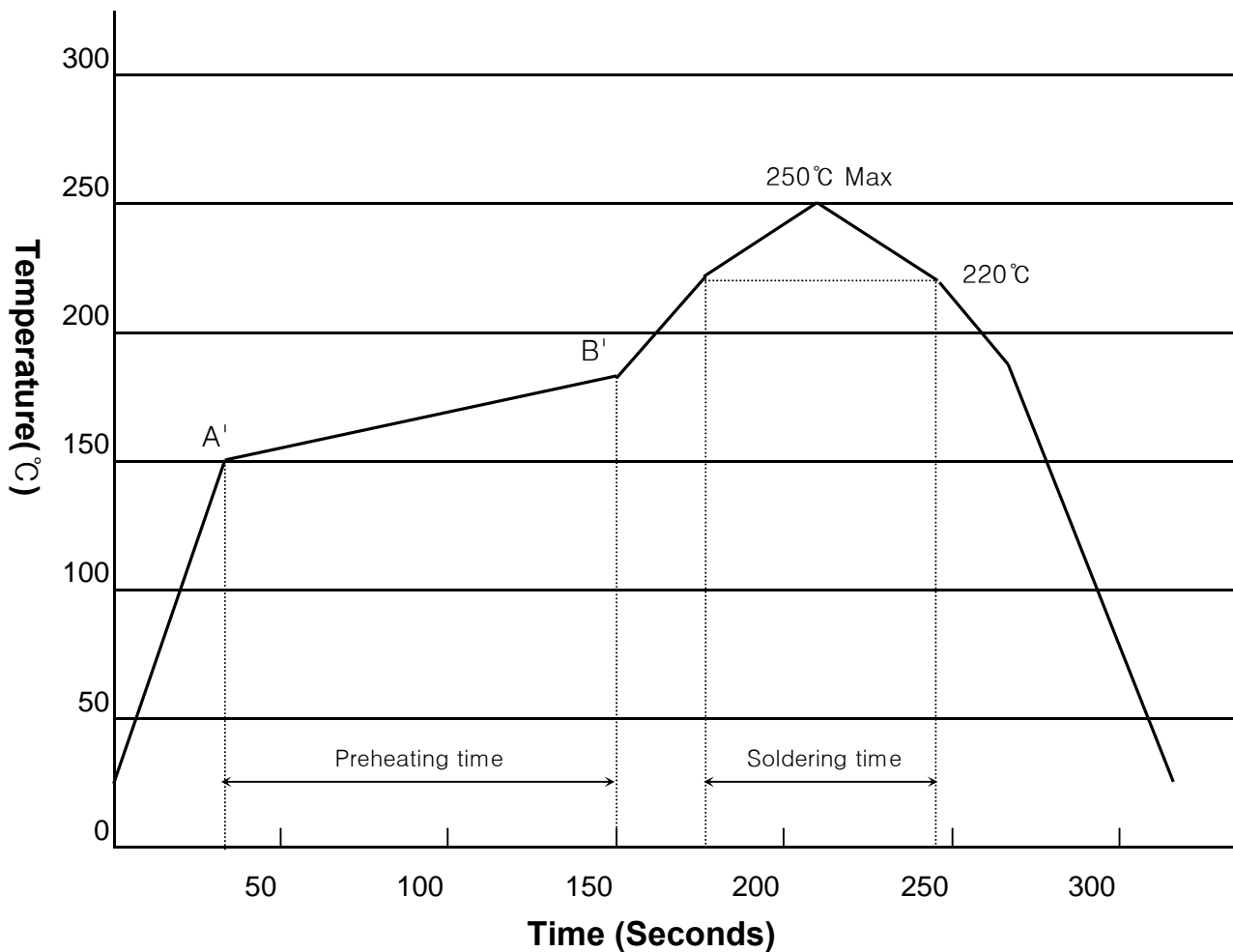


PACKING DIMENSION



■ Reflow Profile

Using Lead-free Solder Paste



Recommended Application Conditions

Reflow System: IR reflow

Solder: Cream type Sn / 3 Ag / 0.5 Cu

Flux content 11%wt

Metal mask thickness: 0.15mm

Preheating time: 135°C ~ 190°C, 90±30seconds

A'=135°C ~ 170°C, B'=170°C ~ 190°C

Soldering time: 250°C Max

220°C Min, 20~55 seconds

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