

Hirose Korea I/F Connector

KQ09S*-Series

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No.	제 품 명	Pin 수	Size (가로*세로*높이)	관련 page
1	KQ09S-24P(***)	24	16.3*7.2*4.4mm	4
2	KQ09S1-24P(***)	24	16.3*7.2*4.0mm	4
3	KQ09S2-24P(***)	24	16.3*7.2*3.9mm	4
4	KQ09S2-24P/3(25)	24P/3	25.3*11.0*4.7mm	5
5	KQ09S2-24P/3(2.7)	24P/3	25.3*11.0*4.7mm	6
6	KQ09S2-24P/3(35)	24P/3	23.6*8.5*4.5mm	7
7	KQ09-5P-DS	5	16.4*7.0*5.4mm	8

4.Reflow profile (Conventional)-----page 9

5.Reflow profile (Lead-free)-----page 10

HHP I/F Connector

KQ09S* - Series



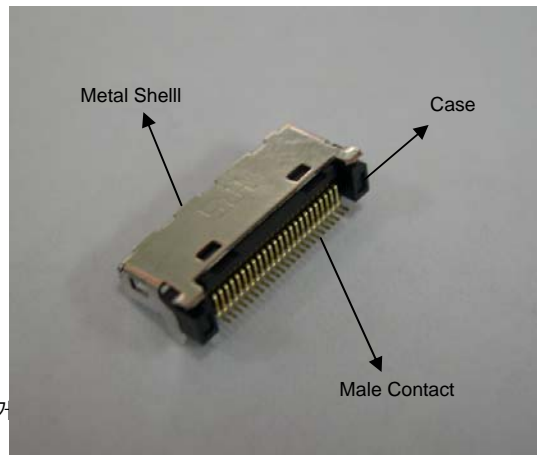
■ 특징

1. 정통부 표준 Type의 HHP용 I/F Connector

국내 정통부 표준 Type의 24 Pin Connector 로써
PCB 실장시 Lead-free에 완전 대응 가능한
Type의 제품임

2. 호환성

기존 양산 공급중인 KQ04S Series 제품의
VE Type으로서 실장 호환성 및 기본 성능을 동일하게
유지 하면서 가격 경쟁력을 갖추고 있음



3. PCB 두께에 따른 사양품 보유

PCB 두께에 따라 Metal shell boss 길이가 1.4/1.0/0.9mm 인
3종의 제품으로 구성 되어 있으며 표준화된 설계구조로
상대물인 PLUG와도 조립성이 우수 함



■ 제품 규격

Rating	Current (Signal : 0.5A) Unselected4EA contact:1A	Operating temperature range	Storage temperature range
	Voltage AC 100V	-30 °C ~ +80 °C	-40 °C ~ +85 °C (Include package)

Item	Test Method	Condition
1. Insulation Resistance	DC 250V	1000MΩ Min
2. Voltage Proof	AC 350V for 1min	No Flashover or Breakdown
3. Contact Resistance	100mA(DC or 1000Hz)	50mΩ Max
4. Vibration	Frequency 10~55Hz Single Amplitude 0.76mm at 2Hr for 3Direction.	No Electrical Discontinuity of 10μs
5. Humidity	Temperature : 40±2°C Relative Humidity : 90~95% Duration : 96Hr	Contact Resistance : 100mΩMax
		Insulation Resistance : 10MΩMin
6. Mechanical Operation	Mated 5000 Times	Contact Resistance : 100mΩMax

■ 부품별 적용 원재료

(SOCKET)

Part	Material	Finish	Remark
Case	PA / LCP	Black	UL94V-0
Male Contact	Copper Alloy	Gold plating	-
Metal Shell	Stainless Steel	Selective SnPbP or NiP	-

※ Reflow 최대 온도 250 °C를 만족시킴으로 Lead-free Soldering의 요구조건에 적합한 제품이다.

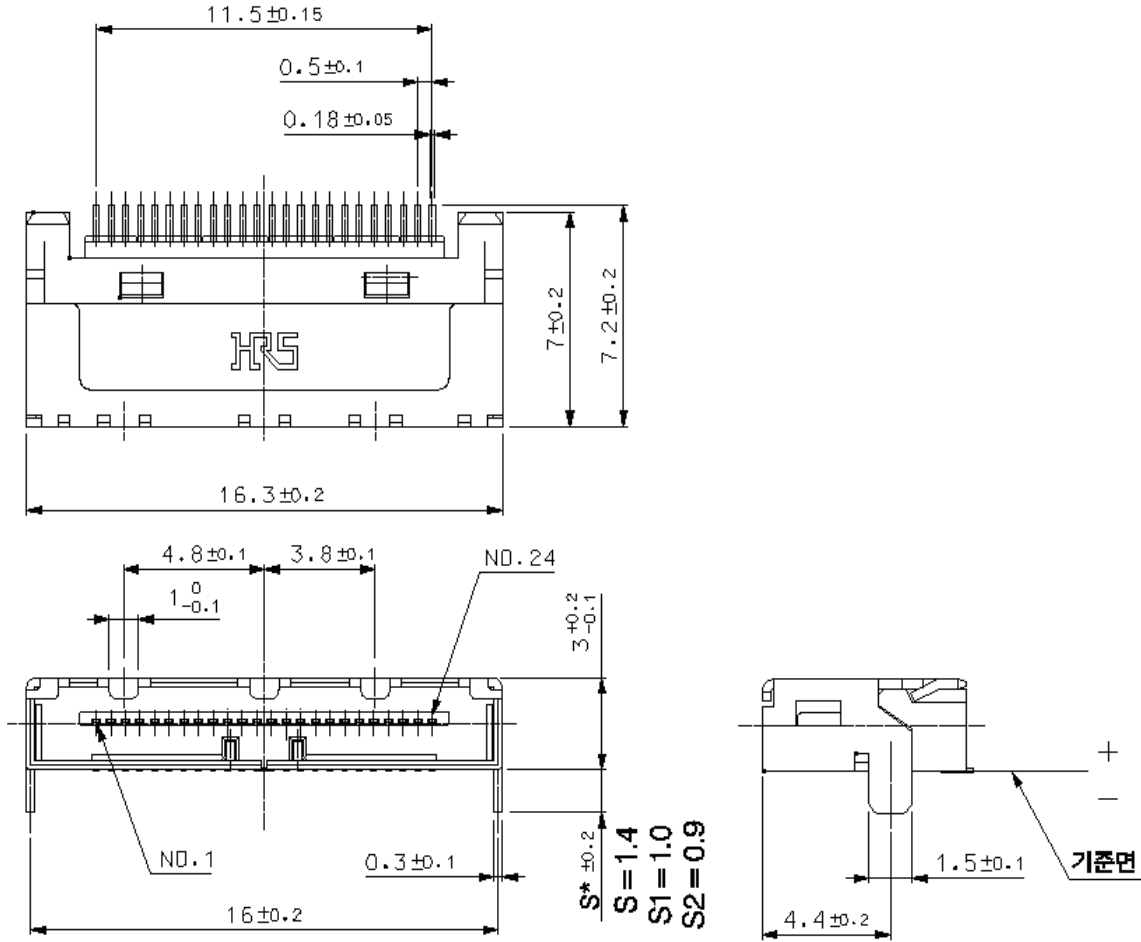
■ Part Number 의 구성

KQ09 S* - 24P(***)

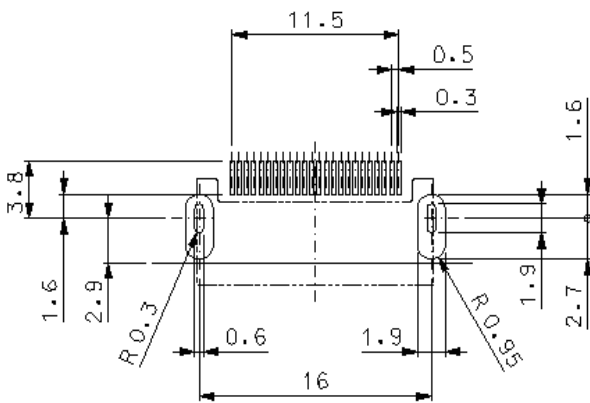
① ② ③ ④

①	Serial Name	고유ID
②	S	Metal Shell Boss 길이 1.4mm
	S1	Metal Shell Boss 길이 1.0mm
	S2	Metal Shell Boss 길이 0.9mm
③	Signal Contact 수	24pin
④	Metal Shell 도금사양	기본사양 : Selective SnPbP
		(011) 사양 : NiP

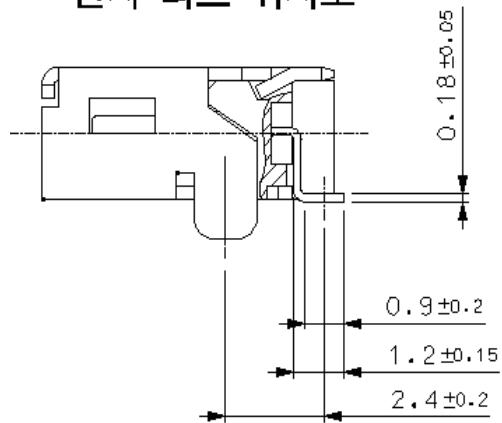
KQ09S*-24P



PCB LAYOUT

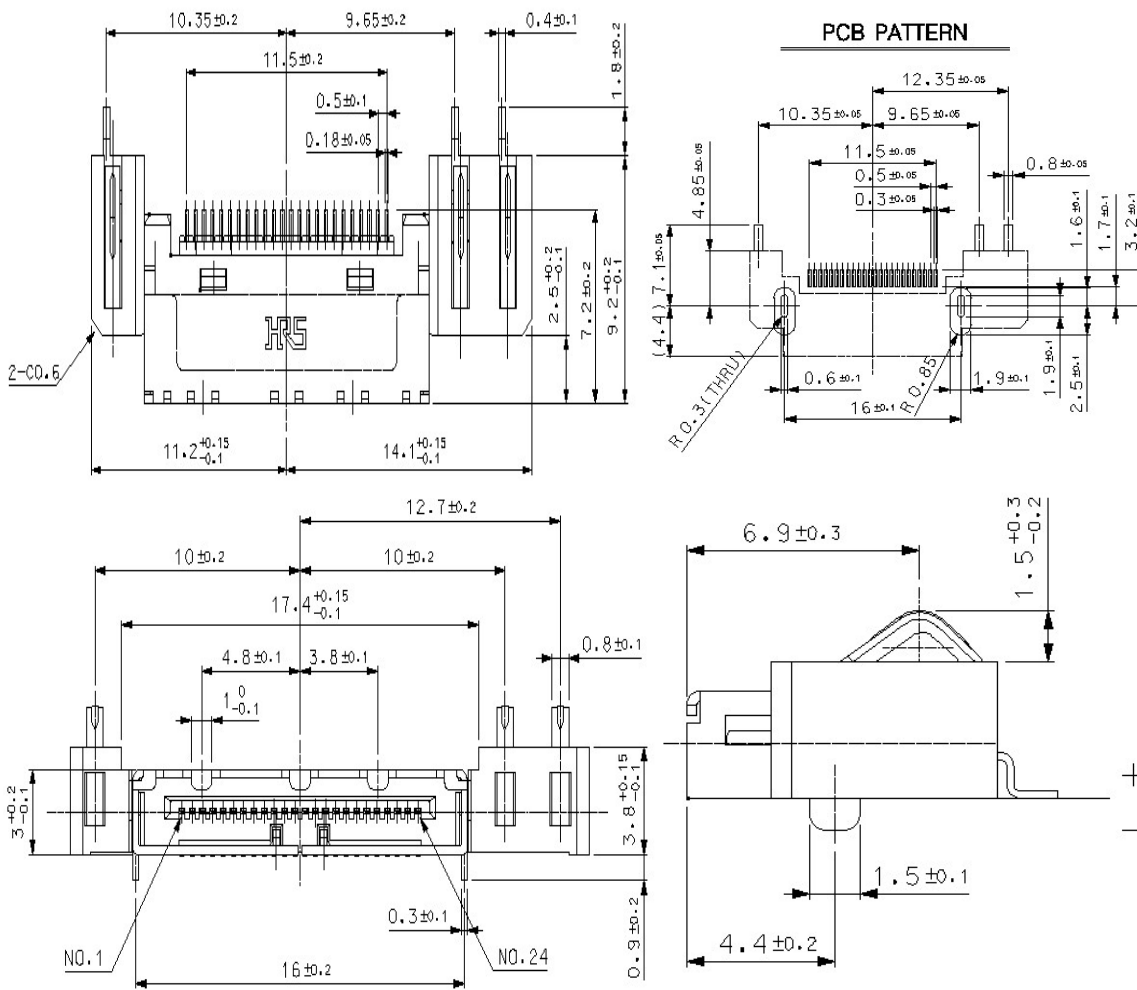


단자 리드 위치도



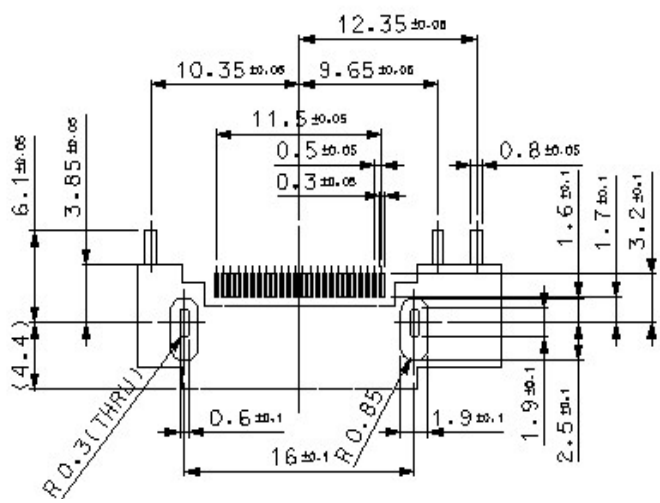
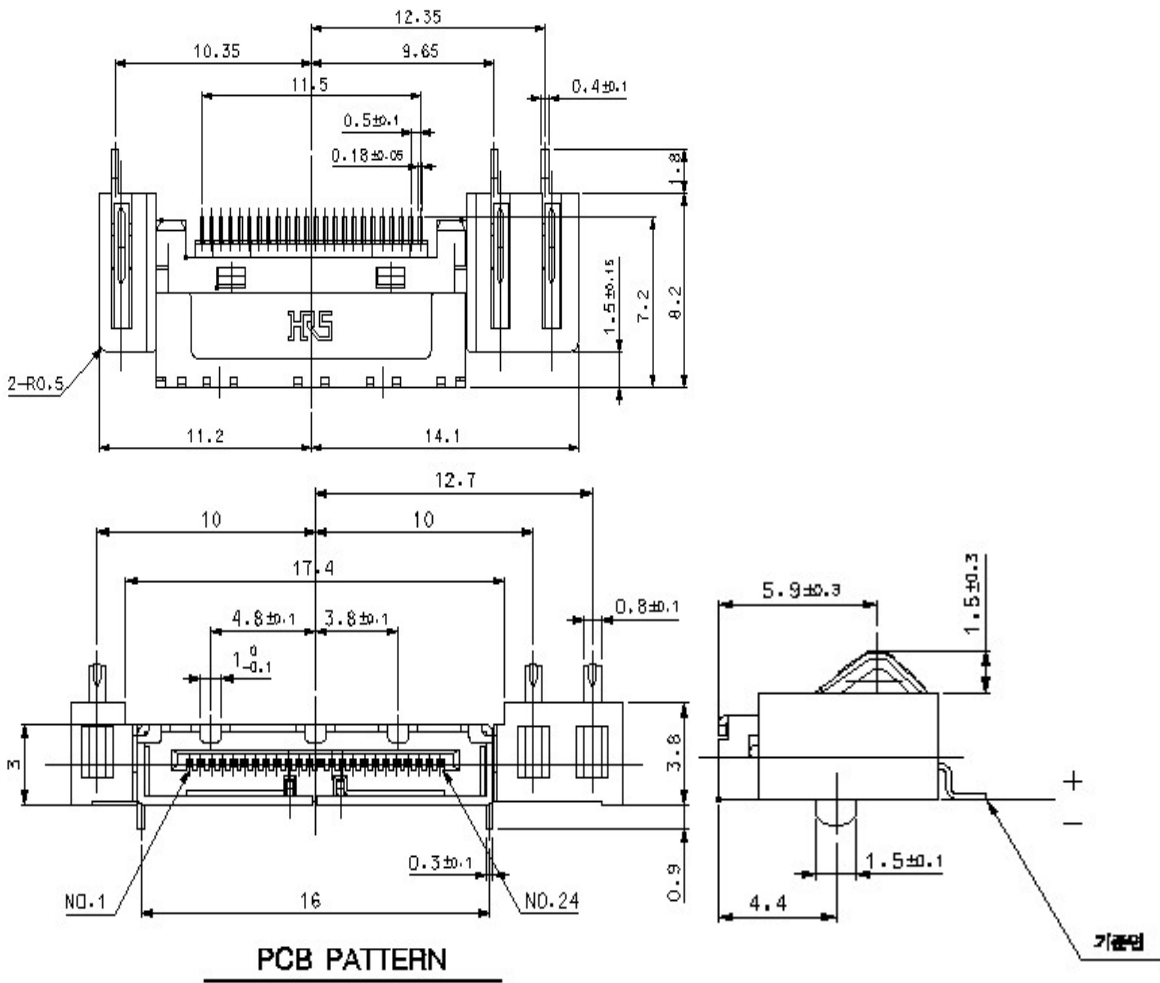
Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0069-6-	KQ09S-24P(***)	24P	Emboss Tape	1,000ea/Reel
CL 6226-0070-5-	KQ09S1-24P(***)	24P	Emboss Tape	1,000ea/Reel
CL 6226-0071-8-	KQ09S2-24P(***)	24P	Emboss Tape	1,000ea/Reel

KQ09S2-24P/3(25)



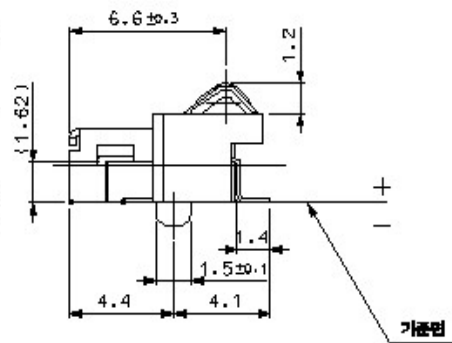
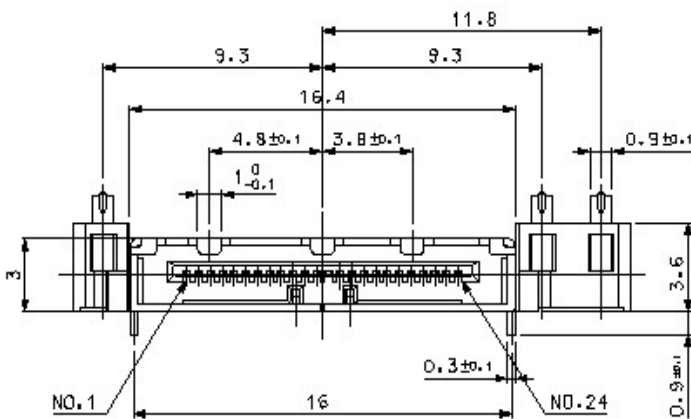
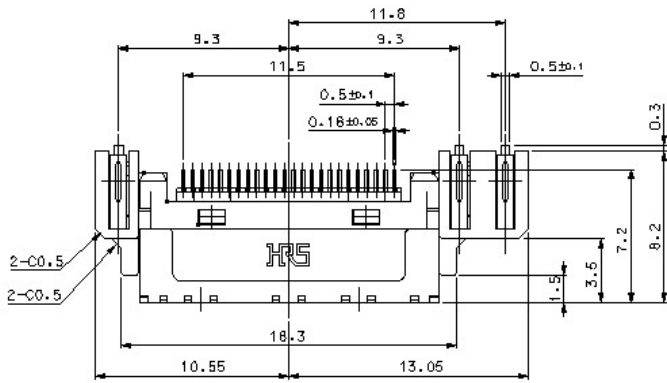
Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0087-8	KQ09S2-24P/3(25)	24P/3	Emboss Tape	500ea/Reel

■ KQ09S2-24P/3(2.7)

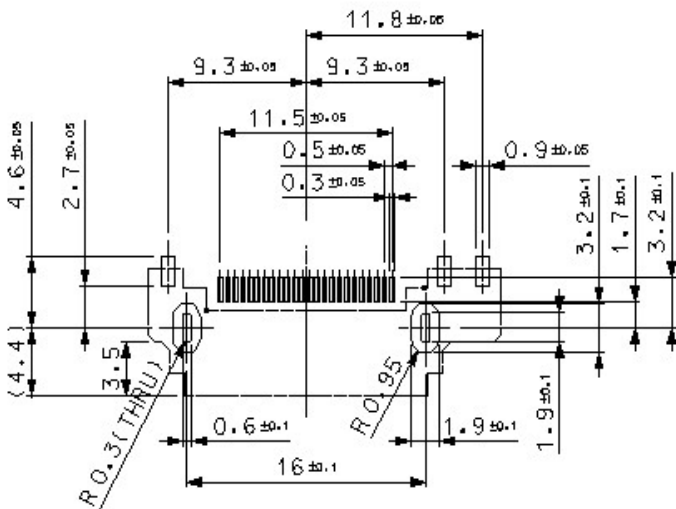


Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0080-9	KQ09S2-24P/3(2.7)	24P/3	Emboss Tape	500ea/Reel

KQ09S2-24P/3(35)

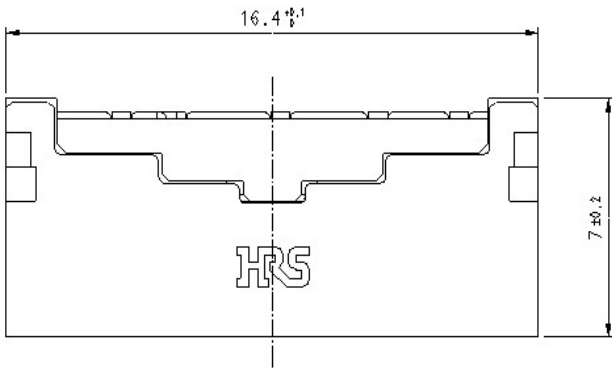


PCB PATTERN



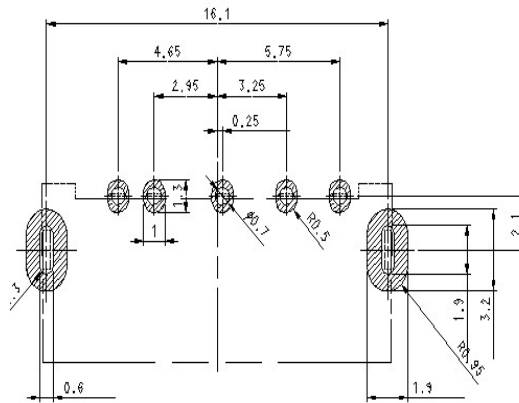
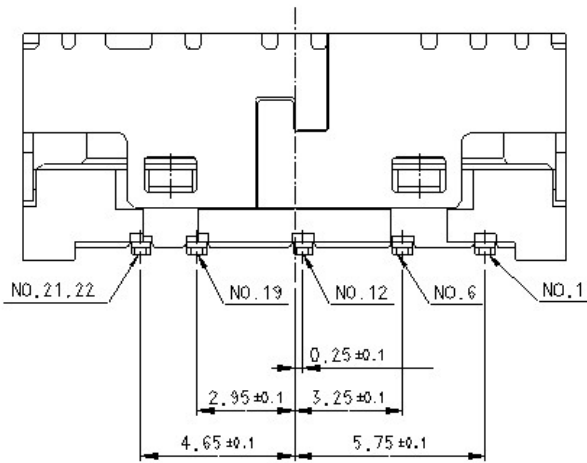
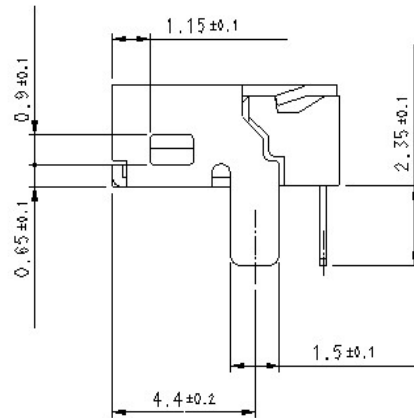
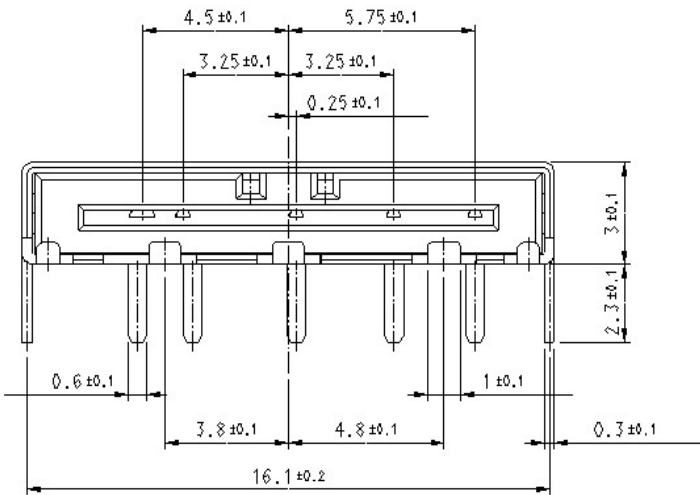
Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0091-5	KQ09S2-24P/3(35)	24P/3	Emboss Tape	500ea/Reel

KQ09-5P-DS



FUNCTIONAL PIN ALLOCATION

PIN NO.	SIGNAL NAME	
NO.1	BATTERY ID	
NO.6	ON SWITCH	
NO.12	POWER GROUND	
NO.19	POWER GROUND	
NO.21	POWER	COMMON
NO.22	POWER	

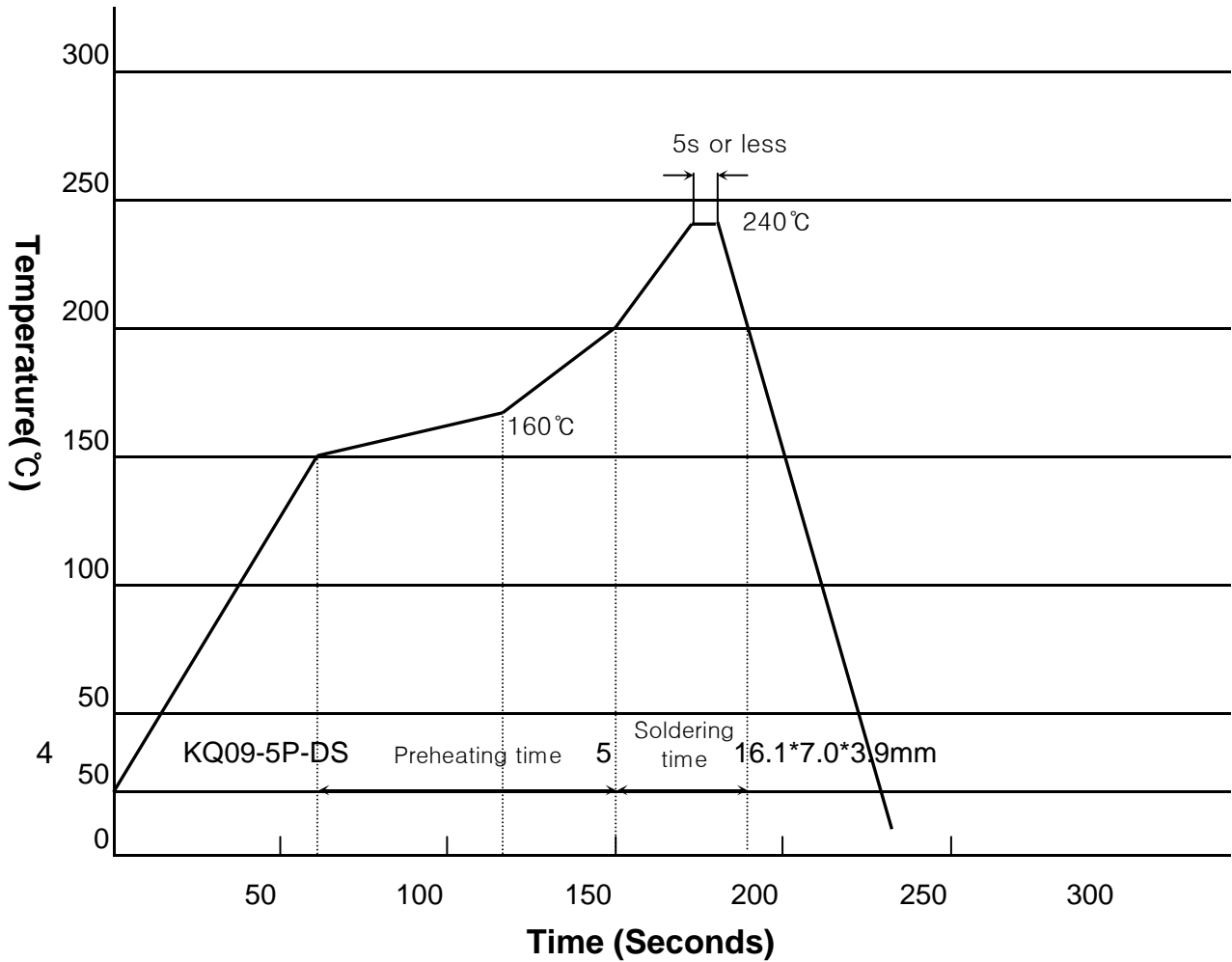


RECOMMENDE PCB PATTERN TOLERANCE : ±0.05

Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0114-9	KQ09-5P-DS	5	TRAY	5000ea/BOX

■ Reflow Profile

Using Conventional Solder Paste



Recommended Application Conditions

Reflow System: IR reflow

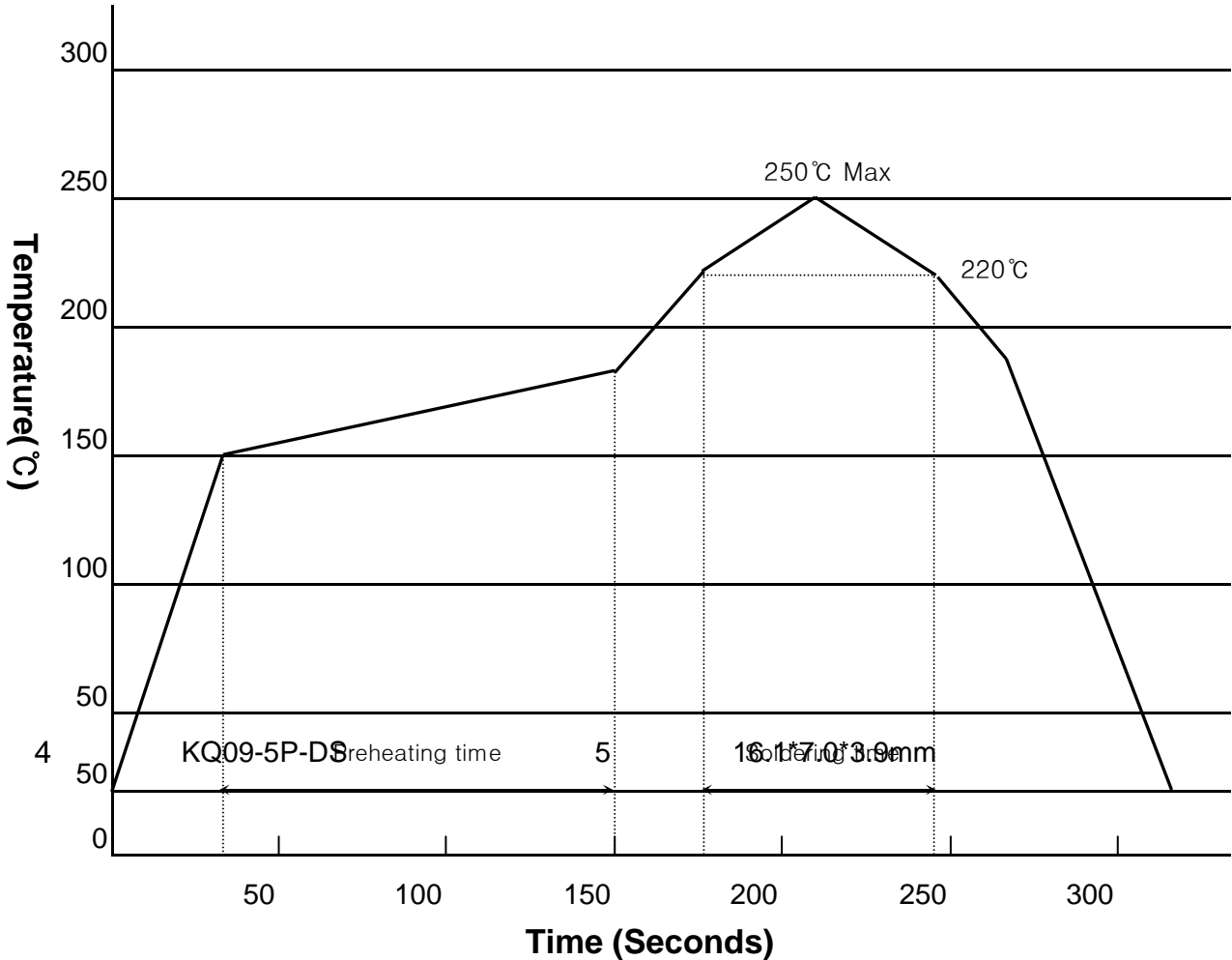
Solder: Cream type 63 Sn / 37 Pb

Flux content 11%wt

Metal mask thickness: 0.15mm

■ Reflow Profile

Using Lead-free Solder Paste



Recommended Application Conditions

Reflow System: IR reflow

Solder: Cream type Sn / 0.3 Ag / 0.5 Cu

Flux content 11%wt

Metal mask thickness: 0.15mm

Preheating time: 150°C~180°C, 90±30seconds

Soldering time: 250°C Max

220°C Min, 60±10seconds