1. **Scope**

FPC Connector pitch 0.5mm series
This specification covers the FFC05009 series

2. **Ordering information**

Refer to the drawing.

3. **Connector dimensions**

Refer to the drawing.

4. **Material**

Housing: PA6T (UL 94V-0)
Color :Natural ;Flammability rating (UL 94V-0)
Actuator: PPS (UL 94V-0)
Color: Brown;Flammability rating (UL 94V-0)
Contacts terminal: Phosphor bronze
Stopper: Phosphor bronze
Plating:Tin or gold plated

5. **Accommodated P.C.B layout**

Refer to the drawing.

6. **Rating**

Operating voltage(Max.)	50V AC
Current rating(Max.)	0.5A DC
Temperature range-operating	-40°C -- +85°C(Including terminal temperature rese)

7. **Performance**

Electrical Performance

Contact Resistance	20mΩ Max	Mate applicable FPC and measure by dry circuit.20mV Max. 10mA
Insulation Resistance	500MΩ Min	Mate applicable FPC and apply 200V DC between adjacent terminal or ground
Dielectric Strength	No Breakdown	Mate applicable FPC,apply 200V AC(rms)for 1 minute between adjacent terminal or ground

Mechanical Performance

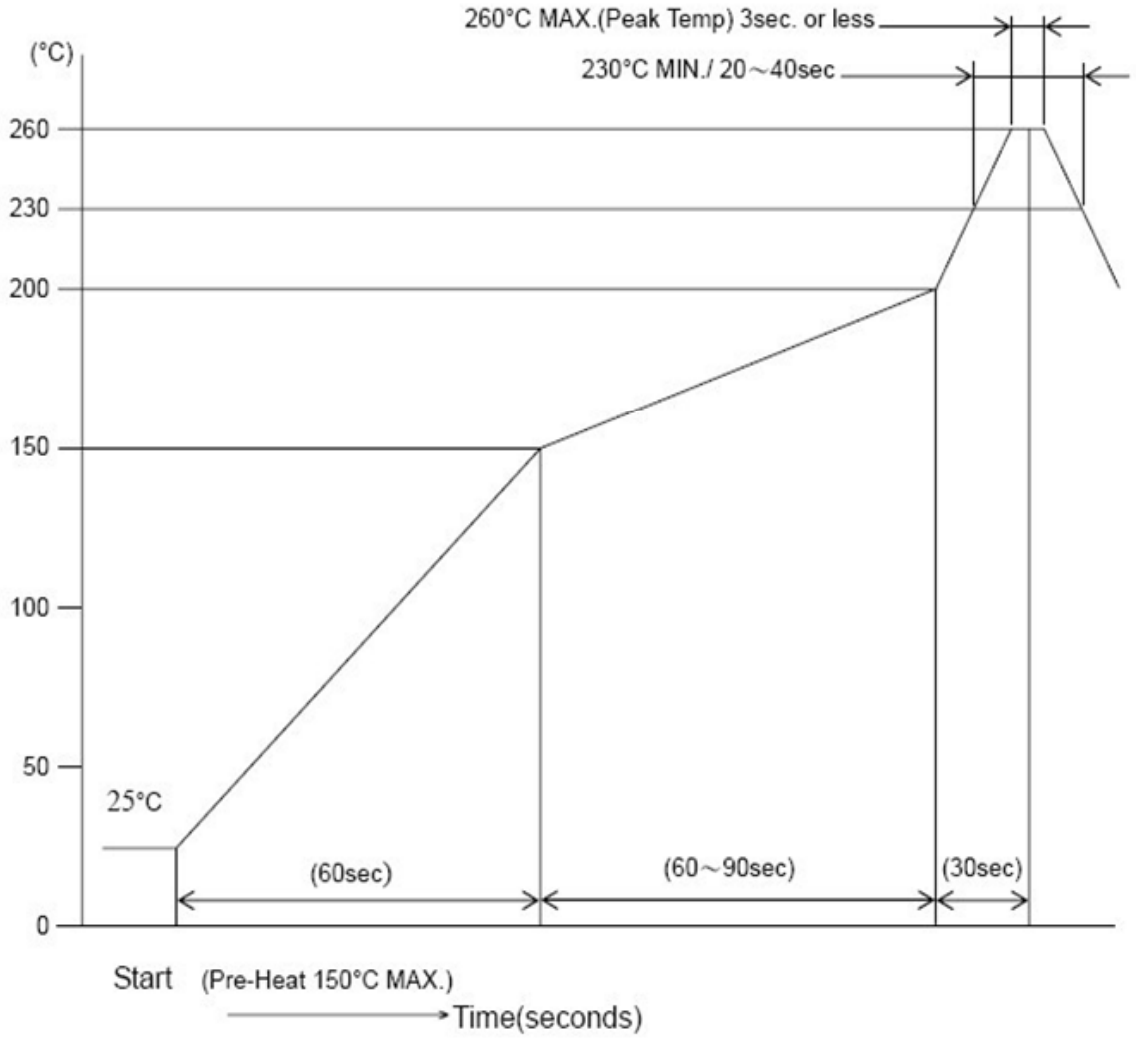
Terminal Retention Force	0.30 Kgf/Circuits(Min)	Apply axial pull out force at the rate of 25±3mm/minute on the terminal assembled in the housing.
FFC Retention Force	0.04kgf/Circuits(Min)	Apply axial pull out force at the rate of 25±3mm/minute on the line assembled in the connector

Environmental Performance and others

Heat Resistance	Mate applicable FPC and expose to 85±2°C for 96 hours.upon completion of the exposure period the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours ,After which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	30mΩ Max
Cold Resistance	Mate applicable FPC and expose to -40±2°C for 96 hours ,upon completion of the exposure period,the test specimens shall be comditioned at ambient room conditions for 1 to 2 hours ,after which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	30mΩ Max
Humidity	Mate applicable FPC and expose to 40±2°C,relative humidity 90 to 95% for 96 hours,upon completion of the exposure period ,the test specimens shall be comditioned at ambient room conditions for 1 to 2 hours ,after which the specified measurements shall be performed.	Appearance	No Damage
		Contact Resistance	30mΩ Max
		Dielectric strength	No Breakdown
		Insulation Resistance	500MΩ Min
Temperature Cycling	Mate applicable FPC and subjectto the following conditions for 5 cycles.upon completion of the exposure period ,the test specimens shall be comditioned at ambient room conditions for 1 to 2 hours ,after which the specified measurements shall be performed. Cycle a)-40±3°C 30minutes b)+85±3°C 30minutes (Transit time shall be with in 3 minutes)	Appearance	No Damage
		Contact Resistance	30mΩ Max
Salt Spray	Mated connector shall be placed in a salt spray chamber on the following conditions. Salt solution density: 5±1% Temperature: 35±2°C Duration: 8 Hours	Appearance	No Damage
		Contact Resistance	30mΩ Max
Solderability	Tip of solder tails and fitting nails into the molten solder (held at 235±5°C) up to 0.1mm form the bottom of the housing for 2±0.5 seconds.	Solder Wetting	90% ofimmersed area must show no voids ,pin holes

Resistance to Soldering Heat	Soldering inon method 0.2mm from terminal tip and fitting nail tip. Soldering time :10±0.5 seconds Solder temperature :260±5°C	Appearance	No Damage

8. **Reference infrared reflow condition**



Temperature condition graph
Temperature on board pattern side