佑泰電子股份有限公司
YUTEK TRONIC INC.

Yutek Tronic Inc., founded in 1992 with over a decade of R&D experiences , is one of few leading high quality LCD heat seal connector manufacturers in the world. Incorporating the most advanced technology and know-how , we provide more varieties of heat seal connectors then that of other makers with better response, faster delivery and more reasonable price, especially in customer-made design.

What is the Heat Seal Connector?

Heat Seal Connectors consist of Carbon/Silver traces printed onto polyester film. Bonding material , in which conductive particles are dispersed ,is applied to the traces to heat-seal the connectors to PCB's, LCD's and other components.

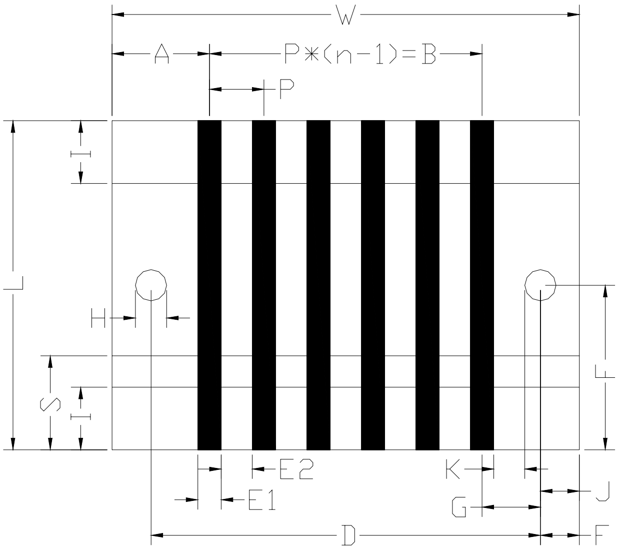
Special Features

HSCs offer the following unique advantage to component design:

Minimizing in dimension	◎**HSC is smaller, thinner and of less weight than any other connectors.**
Design flexibility	◎**HSCs offer designers dimensional flexibility.**
Simplified procedures	◎**HSC does not have to be set under the complicatied procedures.**
Easy to assemble	◎**HSCs provide reliable solderless connections for a wide variety of components.**
Reduce cost	◎**HSCs offer much simplified connecting work at lower cost.**

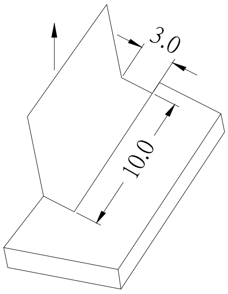
Design & Physical Parameters

	Pitch<1.0	**Pitch≧1.0**
W	**±0.25**	**±0.25**
L	**±0.25**	**±0.25**
B≦100	**±0.05**	**±0.10**
100<B≦150	**±0.06**	**±0.10**
B>150	**±0.07**	**±0.10**
D	**±0.20**	**±0.20**
P	**±0.05**	**±0.07**
A	**±0.25**	**±0.25**
G	**±0.20**	**±0.20**
F	**±0.30**	**±0.30**
E1/E2	**±0.05**	**±0.10**
H (min, ∮1.2)	**±0.15**	**±0.15**
K (min,0.5)	**-----**	**-----**
J (min,1.0)	**-----**	**-----**
I (uv)	**±0.25**	**±0.25**
I (pet)	**±0.50**	**±0.50**
S	**±0.50**	**±0.50**

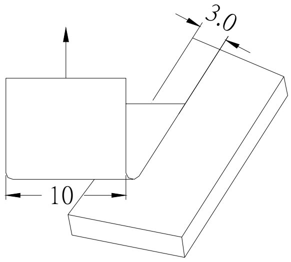


Basic Properties

Item	Properties
Conductive resistance	Carbon≦40Ω/□ Mix≦2.0Ω/□ Silver≦0.2Ω/□
Insulation resistance	≧100MΩ
Peel strength-X-Direction	≧500g/cm^2 ,105mm/min speed
Y-Direction	≧200g/cm^2 ,105mm/min speed
Storage time	Keep under 25℃,RH＜50%, use within 6 month.



X-Direction(mm)



Y-Direction(mm)

***The resistance is measured between electrode of ITO on LCD and gold plated electrode on PCB.**

Reliability

Test Conditions

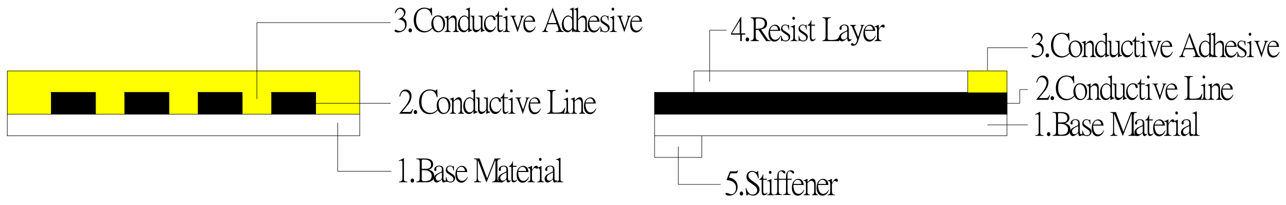
Temperature and Humidity Test	
Storage，High Temp.	500 hrs at 85±2℃
Storage，Low Temp.	500 hrs at -40±3℃
Storage，High Temp. & High Humidity	500 hrs at 60±2℃ & 90 % RH (+0，-5%)
Heat Cycle，High-Low Temp. at High Humidity	12 hrs at 60±2℃，90 % RH (+0，-5%) thence to -40±3℃ for 12hrs 50cycles of the above
Heat Cycle，High Temp. & Ambient-Low Temp.	30 min at 85±2℃，to Ambient Temp. for 5 min thence to -40±3℃ for 30 min 100cycles of the above

Test Results

Items	Description	Graphite	Silver
Conductive Resistance	Ambient Environment	40 ohm/sq	0.2 ohm/sq
	Rated Temp. Humidity	60 ohm/sq	0.5 ohm/sq
Peeling Strength	Ambient Environment	more than 500grm	more than 500grm
	Rated Temp. Humidity	more than 400grm	more than 400grm

Structure of Product

No	Material Description		Thickness
1	Base Material	Polyester Film	25 or 38µ
2	Conductive Line	Carbon / Silver / Mix Paste	10~15 µ
3	Conductive Adhesive	Synthetic Rubber	10~15 µ
4	Resist Layer	Polyester Resin(UV) / Film(PET)	10~15µ/25µ
5	Stiffener	Polyester Film	180 or 250µ



Bonding Conditions Range

Melting point for Resin in Heat-seal process. (Peak Temperature)	160℃~180℃
A. Sealing time	5~7sec.
B. Temperature setting at Surface of HSC when sealing	min. 160℃
C. Sealing pressure	35~45kg/sq cm^2

***This temperature should be applied just to bonding film.
Surfaces should be free of dust and contamination.**