

# **FUJIPOLY<sup>®</sup>**

## **GOLD 8000 Connector**

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**FUJIPOLY DATA SHEET NUMBER FPDS 2K-30 / Version 3**

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# **FUJIPOLY<sup>®</sup> DATA SHEET** FPDS 2K-30 (Version 3)

## **1] Product Name :**

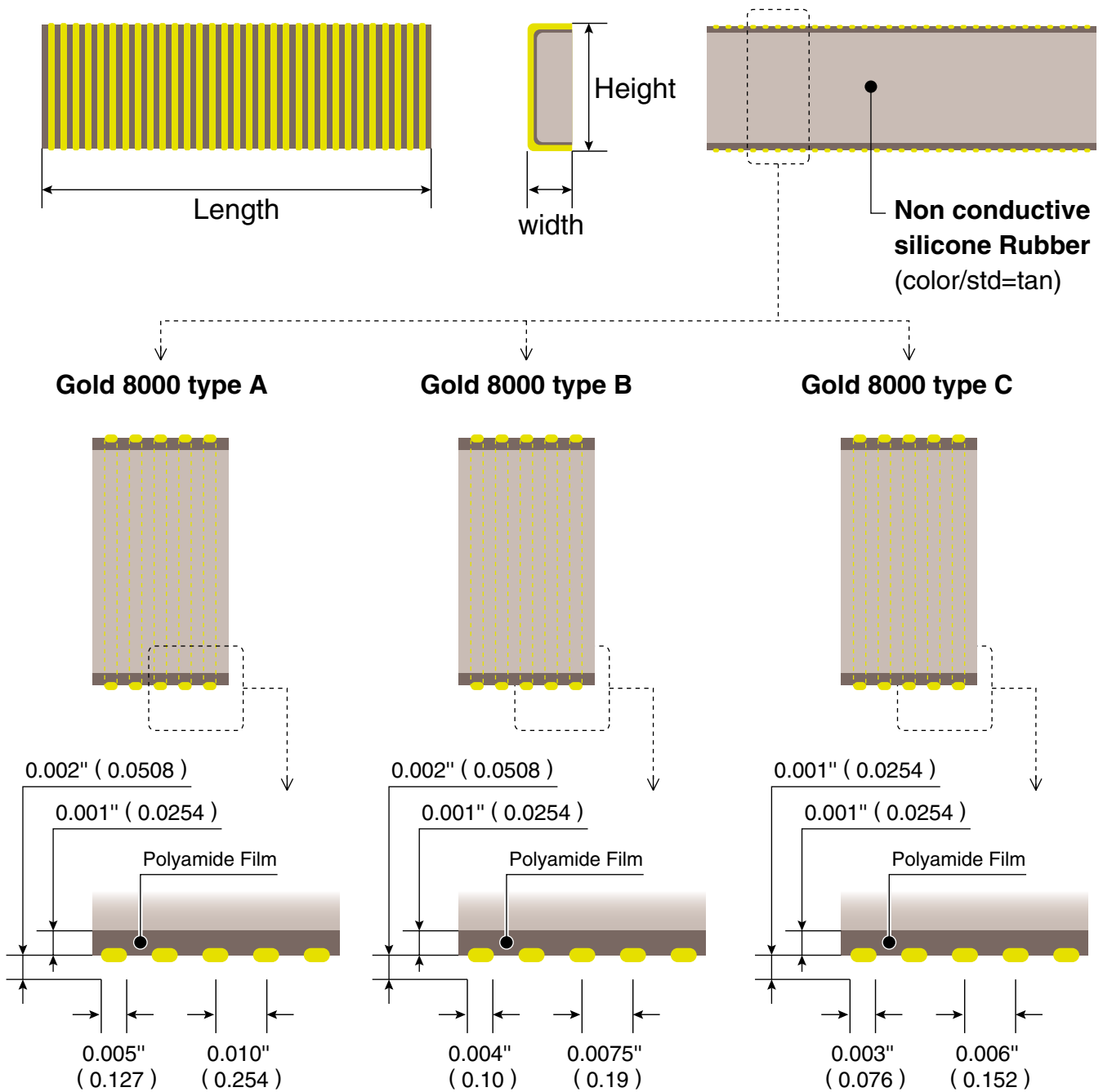
Gold 8000 Type A Connector  
Gold 8000 Type B Connector  
Gold 8000 Type C Connector

## **2] Features :**

Gold 8000 elastomeric connector elements are D-shaped with low durometer silicone rubber cores around which flat metallic gold-plated conductors are vulcanised in a row parallel to each other. The tips of the metallic conductors are turned upward so that point contact can be effected; in addition, contact is made to the flat area when the connector element is positioned between two printed circuit contaminants which might be present on the surface oxides or contact pads, thus assuring reliable electrical connection on two planes. Also available are standard board to board assemblies which include connector and connector holder.

- a ) Very low contact resistance, high current capacity.
- b ) Can be used for minimum 0.5mm ( 0.020 inches ) electrode pitch.

### 3] Variety of Gold 8000 Connector. ( Figure -1 )



**Table - 1**

	Gold 8000 type A	Gold 8000 type B	Gold 8000 type C
<b>Conductive wire per inch</b>	100 wires / 25.4mm	133 wires / 25.4mm	166 wires / 25.4mm
<b>Conductive Wire</b>	0.002" x 0.005"	0.002" x 0.004"	0.001" x 0.003"
<b>Support Film</b>	0.001"(0.0254mm) Thickness Polyamide Film		
<b>Connector Body</b>	Non conductive Silicone Rubber		

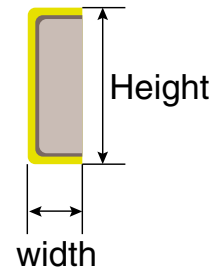
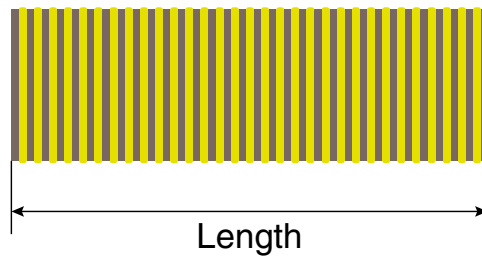
#### 4] Available Size and Tolerance of Gold 8000 Connector Type A, B, C.

**Table - 2**

Measurement	Mark	MM ( metric system )		Inch	
		Minimum	Maximum	Minimum	Maximum
Length	L	5.08mm ± 0.127mm	152.4mm ± 0.762mm	0.200" ± 0.005"	6.000" ± 0.030"
Height	H	2.54mm ± 0.127mm	12.70mm ± 0.381mm	0.100" ± 0.005"	0.500" ± 0.015"
Width	W	1.52mm ± 0.127mm	3.18mm ± 0.254mm	0.060" ± 0.005"	0.125" ± 0.010"

Note :

For good design practice and low deflection force requirements, The High (H) should be twice the width (W) For other sizes consult factory.



## 5] Typical product Properties.

**Table - 3**

Measurement	Mark	Gold 8000 Type A	Gold 8000 Type B	Gold 8000 Type C
Operating Temperature Range	°C	-20°C ~125°C		
	°F	-4°F ~255°F		
Contact Resistance	Ohms	Less than 0.025 (0.025"wide contact - Pads)		
Current Carrying Capacity	mA	500mA / wire maximum		250mA / wire maximum
Insulation Resistance	Ohms	Minimum 10 <sup>12</sup> , between adjacent Conductive wire		
Capacitance	PF	Minimum 0.10, per adjacent pad at 1MHZ and 0.100 height.		
Inductance		Minimum 7nanohenries, per adjacent pad at 1MHZ and 0.100 height.		
Deflection		8% to 20%. Recommended 10% to 15% of original height.		

## 6] Basic Environmental Testing Characteristics

**Table - 4**

Item	Test Method	Test Condition	Test Result
Temperature Cycling	Based on MIL-202-102A	Test Cycle -55°C → +25°C → +125°C (-67°F → +77°F → +25°F)	There was No change in the physical properties
Humidity(Steady-state) (Moisture Test)	Based on MIL-202-103B	Room Temperature 95%RH	There was No appreciable change in contact resistance after 500hrs exposure.
Corrosive Environment		1000hrs exposure at 1.0ppm H <sub>2</sub> S 60°C / 75%RH 1.0ppm SO <sub>2</sub>	Slight change in contact resistance : no evidence of contact peeling or blistering
Salt spray Test	Based on MIL-202-101D Condition B	5% Salt Solution 35°C / 48hrs	There was No evidence of blistering or peeling of the contact material.

## 7] Structure Materials

**Table - 5**

Parts	Materials
Conductive wire	Gold Plated Copper wire (Gold 0.00001" Thickness)
Connector body	Non Conductive Low Compression Set Silicone Rubber. Flame test / UL 94 - HB
Film	0.001" (0.025mm) Thickness Polyamide Film

## 8] Others Technical Informations.

FujiPoly website <http://www.fujipoly.com>

January. 31th 2002 version 3

December. 8th 2000 version 2

ISSUED : July. 31th 2000 version 1

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