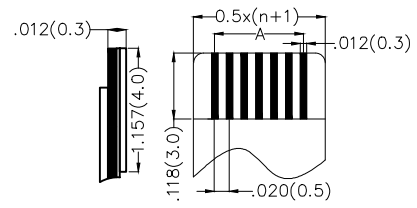
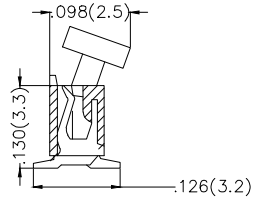
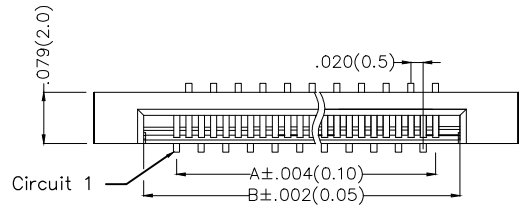


REV	LOCATIONS	DESCRIPTION	DATE	REVISED	APPD

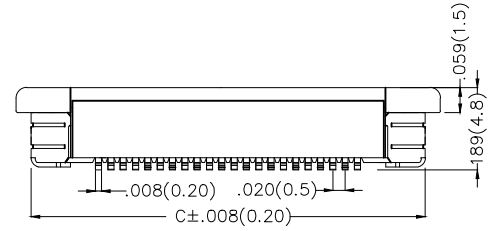
SPECIFICATIONS

Electrical
 Current Rating: 0.5A AC(rms)/DC
 Voltage Rating: 50V AC(rms)/DC
 Contact Resistance: 20 mΩ Max
 Insulation Resistance: 500 MΩ MIN
 Withstanding Voltage: 500V AC r.m.s
 Operating Temperature: -40°C~+85°C

Material
 Housing: PA6T UL 94V-0
 Actuator: Heat Resistant Polymer UL 94V-0
 Contact: Phosphor Bronze/ Tin or gold plated



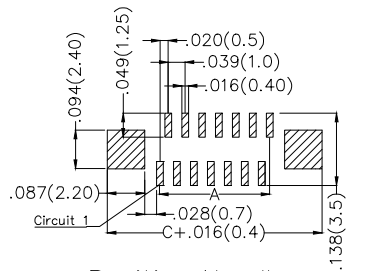
Applicable FFC Recommended Dimension



Ordering Information

FFC 050 12 — XX S S A 1 X 4 W5 M
 1 2 3 4 5 6 7 8 9 10 11 12

1 Category FFC-FPC	2 Series Number 050-Pitch0.50mm	3 Distinction No. 12	4 Circuits XX	5 Assemble Layout S-SMT	6 Entry Angle S-180° Vertical
7 Contact Position A-Positive Needle	8 ZIF 1-ZIF	9 Plating 2-Tin Plated 1-Gold Plated	10 Material-Resin 4-PA6T	11 Color-Resin W5-Housing: Natural, Actuator: Black	12 Packaging M-Reel



Positive Needle



Recommended P.C.Board Layout

<p>THIRD ANGLE PROJECTION</p>	GENERAL TOLERANCES (UNLESS SPECIFIED)		APPROVE BY FRANK	DATE 18/JUN/13	PART NO. FFC05012-XXSSA1X4W5M	ITEM NO. FFC05012	<p>Leader Of Industry</p>
	DESIGN UNITS Inch (metric)	X.±.012(0.30) X.X±.008(0.20)	X.±5° .X'±2'	CHECKED BY CHERRY	DATE 18/JUN/13	TITLE FPC/FFC connector 0.5mm Positive needle SMT	
SCALE 5:1	SIZE A4	X.XX±.006(0.15) X.XXX±.004(0.10)	.XX±1° .XXX±0.5°	DRAWN BY KEVIN	DATE 18/JUN/13	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

1 2 3 4 5 6 7 8

REV	LOCATIONS	DESCRIPTION	DATE	REVISED	APPD

Circuits (n)	Part No.	Dimensions(in/mm)			Circuits (n)	Part No.	Dimensions(in/mm)		
		A	B	C			A	B	C
4	FFC05012-04SSA1X4W5M	.059(1.50)	.102(2.60)	.256(6.50)	20	FFC05012-20SSA1X4W5M	.374(9.50)	.417(10.60)	.571(14.50)
5	FFC05012-05SSA1X4W5M	.079(2.00)	.122(3.10)	.276(7.00)	21	FFC05012-21SSA1X4W5M	.394(10.00)	.437(11.10)	.591(15.00)
6	FFC05012-06SSA1X4W5M	.098(2.50)	.142(3.60)	.295(7.50)	22	FFC05012-22SSA1X4W5M	.413(10.50)	.457(11.60)	.610(15.50)
7	FFC05012-07SSA1X4W5M	.118(3.00)	.161(4.10)	.315(8.00)	24	FFC05012-24SSA1X4W5M	.453(11.50)	.496(12.60)	.650(16.50)
8	FFC05012-08SSA1X4W5M	.138(3.50)	.171(4.60)	.335(8.50)	25	FFC05012-25SSA1X4W5M	.472(12.00)	.516(13.10)	.689(17.00)
9	FFC05012-09SSA1X4W5M	.157(4.00)	.201(5.10)	.354(9.00)	26	FFC05012-26SSA1X4W5M	.492(12.50)	.535(13.60)	.689(17.50)
10	FFC05012-10SSA1X4W5M	.177(4.50)	.221(5.60)	.374(9.50)	27	FFC05012-27SSA1X4W5M	.512(13.00)	.555(14.10)	.709(18.00)
11	FFC05012-11SSA1X4W5M	.197(5.00)	.240(6.10)	.394(10.00)	28	FFC05012-28SSA1X4W5M	.531(13.50)	.575(14.60)	.728(18.50)
12	FFC05012-12SSA1X4W5M	.217(5.50)	.260(6.60)	.413(10.50)	29	FFC05012-29SSA1X4W5M	.551(14.00)	.595(15.10)	.748(19.00)
13	FFC05012-13SSA1X4W5M	.236(6.00)	.280(7.10)	.433(11.00)	30	FFC05012-30SSA1X4W5M	.571(14.50)	.614(15.60)	.768(19.50)
14	FFC05012-14SSA1X4W5M	.256(6.50)	.299(7.60)	.453(11.50)	32	FFC05012-32SSA1X4W5M	.610(15.50)	.654(16.60)	.807(20.50)
15	FFC05012-15SBA1X4W5M	.276(7.00)	.319(8.10)	.472(12.00)	33	FFC05012-33SSA1X4W5M	.630(16.00)	.673(17.10)	.827(21.00)
16	FFC05012-16SSA1X4W5M	.295(7.50)	.339(8.60)	.492(12.50)	34	FFC05001-34SSA1X4W5M	.650(16.50)	.693(17.60)	.846(21.50)
17	FFC05012-17SSA1X4W5M	.315(8.00)	.359(9.10)	.512(13.00)	35	FFC05012-35SSA1X4W5M	.669(17.00)	.713(18.10)	.866(22.00)
18	FFC05012-18SSA1X4W5M	.335(8.50)	.378(9.60)	.531(13.50)	36	FFC05012-36SSA1X4W5M	.689(17.50)	.732(18.60)	.886(22.50)
19	FFC05012-19SSA1X4W5M	.354(9.00)	.398(10.10)	.551(14.00)	40	FFC05012-40SSA1X4W5M	.768(19.50)	.811(20.60)	.965(24.50)

 THIRD ANGLE PROJECTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		APPROVE BY FRANK	DATE 18/JUN/13	PART NO. FFC05012-XXSSA1X4W5M	ITEM NO. FFC05012	 Leader Of Industry	
	X.±.012(0.30)	X.±5'	CHECKED BY CHERRY	DATE 18/JUN/13	TITLE FFC/FFC connector 0.5mm Positive needle SMT			REV 0
	DESIGN UNITS Inch (metric)	X.X±.008(0.20)	.X±2'	DRAWN BY KEVIN	DATE 18/JUN/13	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
	SCALE 5:1	SIZE A4	X.XX±.006(0.15)	.XX±1'	X.XXX±.004(0.10)	.XX±0.5'		

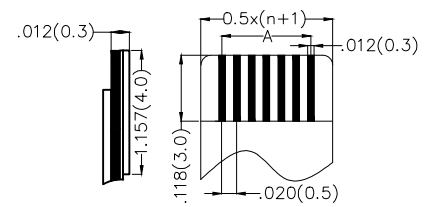
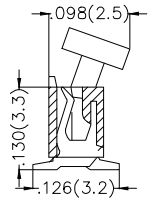
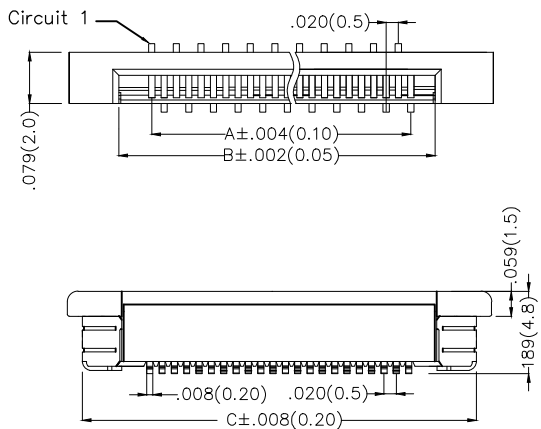
1 2 3 4 5 6 7 8

REV	LOCATIONS	DESCRIPTION	DATE	REVISED	APPD

SPECIFICATIONS

Electrical
 Current Rating: 0.5A AC(rms)/DC
 Voltage Rating: 50V AC(rms)/DC
 Contact Resistance: 20 mΩ Max
 Insulation Resistance: 500 MΩ MIN
 Withstanding Voltage: 500V AC r.m.s
 Operating Temperature: -40°C~+85°C

Material
 Housing: PA6T UL 94V-0
 Actuator: Heat Resistant Polymer UL 94V-0
 Contact: Phosphor Bronze/ Tin or gold plated

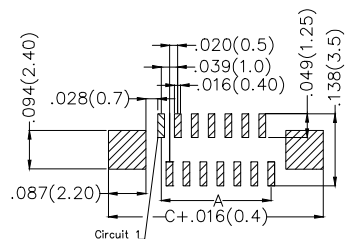


Applicable FFC
Recommended Dimension

Ordering Information

FFC 050 12 — XX S S B 1 X 4 W5 M
 1 2 3 4 5 6 7 8 9 10 11 12

1 Category FFC-FPC	2 Series Number 050-Pitch0.50mm	3 Distinction No. 12	4 Circuits XX	5 Assemble Layout S-SMT	6 Entry Angle S-180° Vertical
7 Contact Position B-Versa Needle	8 ZIF 1-ZIF	9 Plating 2-Tin Plated 1-Gold Plated	10 Material-Resin 4-PA6T	11 Color-Resin W5-Housing: Natural, Actuator: Black	12 Packaging M-Reel



Versa Needle
Recommended P.C.Board Layout

 THIRD ANGLE PROJECTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		APPROVE BY FRANK	DATE 18/JUN/13	PART NO. FFC05012-XXSSB1X4W5M	ITEM NO. FFC05012	 Leader Of Industry
	DESIGN UNITS Inch (metric)	X.±.012(0.30) X.X±.008(0.20)	X.±5° .X'±2'	CHECKED BY CHERRY	DATE 18/JUN/13	TITLE FPC/FFC connector 0.5mm Versa needle SMT	
SCALE 5:1	SIZE A4	X.XX±.006(0.15) X.XXX±.004(0.10)	.XX'±1° .XXX'±0.5°	DRAWN BY KEVIN	DATE 18/JUN/13	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

1 2 3 4 5 6 7 8

REV	LOCATIONS	DESCRIPTION	DATE	REVISED	APPD

A

A

B

B

C

C

D

D



E

E

F

F

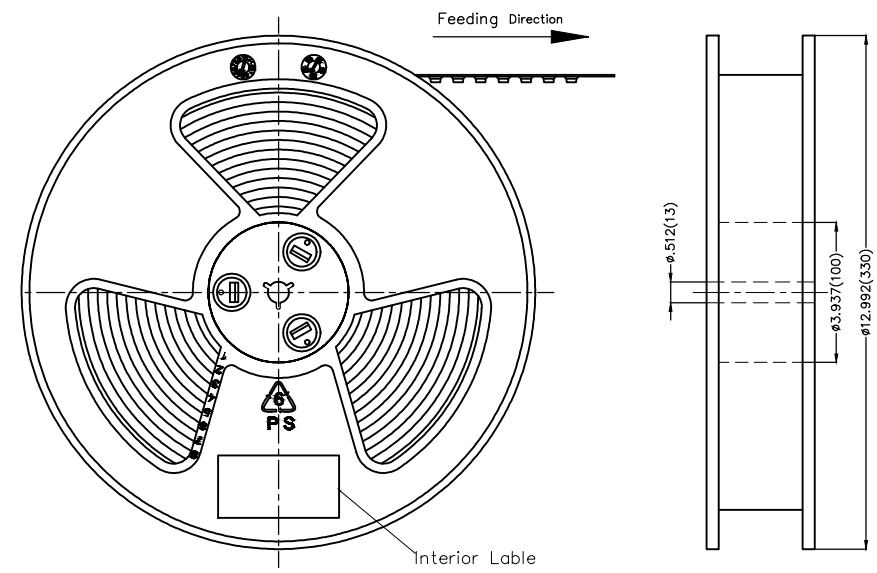
Circuits (n)	Part No.	Dimensions(in/mm)			Circuits (n)	Part No.	Dimensions(in/mm)		
		A	B	C			A	B	C
4	FFC05012-04SSB1X4W5M	.059(1.50)	.102(2.60)	.256(6.50)	20	FFC05012-20SSB1X4W5M	.374(9.50)	.417(10.60)	.571(14.50)
5	FFC05012-05SSB1X4W5M	.079(2.00)	.122(3.10)	.276(7.00)	21	FFC05012-21SSB1X4W5M	.394(10.00)	.437(11.10)	.591(15.00)
6	FFC05012-06SSB1X4W5M	.098(2.50)	.142(3.60)	.295(7.50)	22	FFC05012-22SSB1X4W5M	.413(10.50)	.457(11.60)	.610(15.50)
7	FFC05012-07SSB1X4W5M	.118(3.00)	.161(4.10)	.315(8.00)	24	FFC05012-24SSB1X4W5M	.453(11.50)	.496(12.60)	.650(16.50)
8	FFC05012-08SSB1X4W5M	.138(3.50)	.171(4.60)	.335(8.50)	25	FFC05012-25SSB1X4W5M	.472(12.00)	.516(13.10)	.689(17.00)
9	FFC05012-09SSB1X4W5M	.157(4.00)	.201(5.10)	.354(9.00)	26	FFC05012-26SSB1X4W5M	.492(12.50)	.535(13.60)	.689(17.50)
10	FFC05012-10SSB1X4W5M	.177(4.50)	.221(5.60)	.374(9.50)	27	FFC05012-27SSB1X4W5M	.512(13.00)	.555(14.10)	.709(18.00)
11	FFC05012-11SSB1X4W5M	.197(5.00)	.240(6.10)	.394(10.00)	28	FFC05012-28SSB1X4W5M	.531(13.50)	.575(14.60)	.728(18.50)
12	FFC05012-12SSB1X4W5M	.217(5.50)	.260(6.60)	.413(10.50)	29	FFC05012-29SSB1X4W5M	.551(14.00)	.595(15.10)	.748(19.00)
13	FFC05012-13SSB1X4W5M	.236(6.00)	.280(7.10)	.433(11.00)	30	FFC05012-30SSB1X4W5M	.571(14.50)	.614(15.60)	.768(19.50)
14	FFC05012-14SSB1X4W5M	.256(6.50)	.299(7.60)	.453(11.50)	32	FFC05012-32SSB1X4W5M	.610(15.50)	.654(16.60)	.807(20.50)
15	FFC05012-15SSB1X4W5M	.276(7.00)	.319(8.10)	.472(12.00)	33	FFC05012-33SSB1X4W5M	.630(16.00)	.673(17.10)	.827(21.00)
16	FFC05012-16SSB1X4W5M	.295(7.50)	.339(8.60)	.492(12.50)	34	FFC05001-34SSB1X4W5M	.650(16.50)	.693(17.60)	.846(21.50)
17	FFC05012-17SSB1X4W5M	.315(8.00)	.359(9.10)	.512(13.00)	35	FFC05012-35SSB1X4W5M	.669(17.00)	.713(18.10)	.866(22.00)
18	FFC05012-18SSB1X4W5M	.335(8.50)	.378(9.60)	.531(13.50)	36	FFC05012-36SSB1X4W5M	.689(17.50)	.732(18.60)	.886(22.50)
19	FFC05012-19SSB1X4W5M	.354(9.00)	.398(10.10)	.551(14.00)	40	FFC05012-40SSB1X4W5M	.768(19.50)	.811(20.60)	.965(24.50)

 THIRD ANGLE PROJECTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		APPROVE BY FRANK	DATE 18/JUN/13	PART NO. FFC05012-XXSSB1X4W5M	ITEM NO. FFC05012	 Leader Of Industry	
	X.±.012(0.30)	X'.±5'	CHECKED BY CHERRY	DATE 18/JUN/13	TITLE FFC/FFC connector 0.5mm Versa needle SMT	REV 0		SHEET NO. 4/5
	DESIGN UNITS Inch (metric)	X.XX±.008(0.20)	.X'±2'	DRAWN BY KEVIN	DATE 18/JUN/13	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
	SCALE 5:1	SIZE A4	X.XXX±.004(0.10)	.XX'±1'	.XXX'±0.5"			

1 2 3 4 5 6 7 8

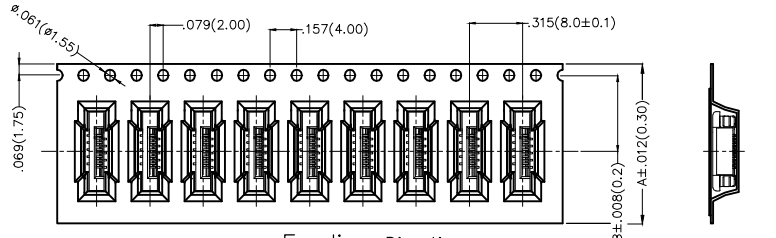
REV	LOCATIONS	DESCRIPTION	DATE	REVISER	APPD

A
B
C
D
E
F

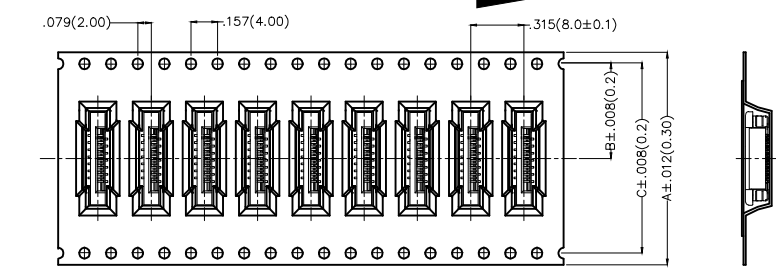


- Note:
1. 10 sprocket hole cumulative tolerance ± 0.2
 2. Carrier camber is within 1.0mm in 250mm
 3. Material: White Conductive polystyrene Alloy 100% recyclable
 4. All dimensions meet EIA-481-3 requirements
 5. Peel off force of cover tape & carrier tape: 20g~130g(0.2N~1.3N)
 6. Component load per 13" reel: 1,000 pcs

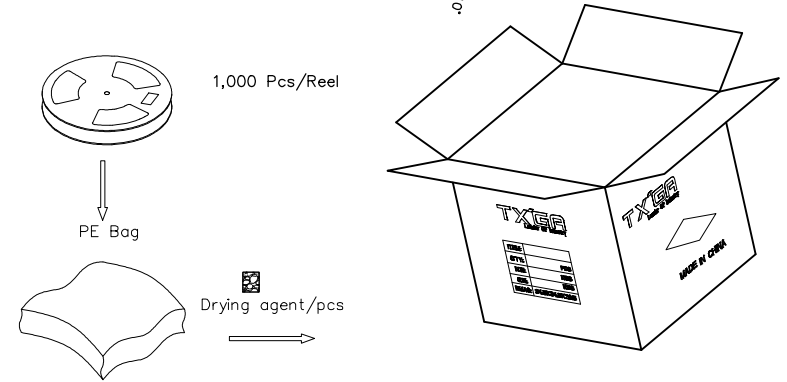
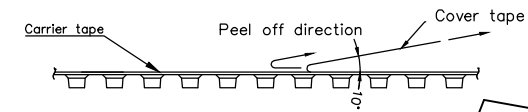
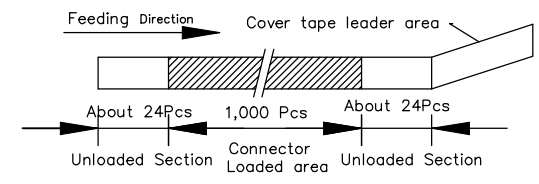
Circuits (n)	Dimensions(in/mm)		
	A	B	C
4~16	.945(24.0)	.453(11.50)	—
17~24	1.260(32.0)	.561(14.25)	1.122(28.50)
25~40	1.732(44.0)	.797(20.25)	1.594(40.50)



Circuits: 4-16 Feeding Direction



Circuits: 17-40 Feeding Direction



<p>THIRD ANGLE PROJECTION</p>	GENERAL TOLERANCES (UNLESS SPECIFIED)		APPROVE BY	DATE	PART NO.	ITEM NO.	<p>Leader Of Industry</p>		
	X. \pm .012(0.30)	X. \pm 5'	FRANK	18/JUN/13	FFC05012-XXSSX1X4W5M	FFC05012			
	DESIGN UNITS Inch (metric)	X.X \pm .008(0.20)	.X \pm 2'	CHECKED BY	DATE	TITLE		REV 0	SHEET NO. 5/5
	SCALE	X.XX \pm .006(0.15)	.XX \pm 1'	CHERRY	18/JUN/13	FPC/FFC connector 0.5mm SMT		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
SIZE	X.XXX \pm .004(0.10)	.XXX \pm 0.5'	DRAWN BY	DATE					
5:1	A4		KEVIN	18/JUN/13					