

Fine Pitch SMT Board to Board Connectors Series 5046



Series 5046 is the board to board, fine pitch connector which meets the requirement for high density circuitry in the market and designed especially for portable equipment. Mated height between boards can be from 3.0mm to 4.5mm.

FEATURES

Series 5046 is offered with or without strain relief.

Designed to have the strong resistance against torque forces on mating area to achieve the high reliability in the natural fall shock environment.

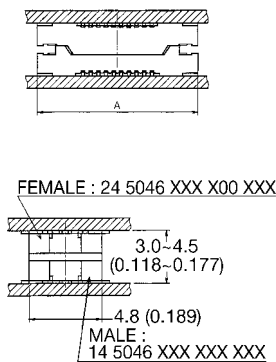
Adoption of bellows type contact with excellent contact reliability.

High durability to achieve 50 mating cycles.

Parts are supplied in tape and reel with 1000 pieces per reel.

SPECIFICATIONS

Series	5046
Mated Height	3.0, 3.5, 4.0, 4.5mm
Pitch	0.5mm
Current	0.4A Max
Voltage	50V Max
D.W. Voltage	500V rms/min.
Mating Cycles	50



No. of Pos.	Dimension A
020	10.5 (0.413)
030	13.0 (0.512)
040	15.5 (0.610)
050	18.0 (0.709)
060	20.5 (0.807)
070	23.0 (0.906)
080	25.5 (1.004)
090	28.0 (1.102)
100	30.5 (1.201)
110	33.0 (1.299)
120	35.5 (1.398)

Series	Variation	Mated Height	Gold Plating	Strain Relief	Vacuum Cover	Part Number				Number of Positions														
										020	030	040	050	060	070	080	090	100	110	120				
5046	Plug	3.0mm	0.1µm	O	O	14 5046	XXX	6	30	829	O	O	O	O	O	O	O	O	O	O	O	O		
					1	14 5046	XXX	1	30	829	O	O	O	O	O	O	O	O	O	O	O	O		
				1	O	14 5046	XXX	5	30	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
					1	14 5046	XXX	0	30	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
		3.5mm	0.1µm	O	O	14 5046	XXX	6	35	829	O	O	O	O	O	O	O	O	O	O	O	O		
					1	14 5046	XXX	1	35	829	O	O	O	O	O	O	O	O	O	O	O	O		
				1	O	14 5046	XXX	5	35	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
					1	14 5046	XXX	0	35	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
		4.0mm	0.1µm	O	O	14 5046	XXX	6	40	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
					1	14 5046	XXX	1	40	829	O	O	O	O	O	O	O	O	O	O	O	O		
				1	O	14 5046	XXX	5	40	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
					1	14 5046	XXX	0	40	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
		4.5mm	0.1µm	O	O	14 5046	XXX	6	45	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
					1	14 5046	XXX	1	45	829	O	O	O	O	O	O	O	O	O	O	O	O		
				1	O	14 5046	XXX	5	45	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
					1	14 5046	XXX	0	45	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
	Receptacle		0.1µm	O	O	24 5046	XXX	6	00	829	O	O	O	O	O	O	O	O	O	O	O	O		
					1	24 5046	XXX	1	00	829	O	O	O	O	O	O	O	O	O	O	O	O		
				1	O	24 5046	XXX	5	00	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
					1	24 5046	XXX	2	00	829	O	O	O	O	O	O	O	O	O	O	O	O	O	
				O	O	24 5046	XXX	6	00	829	O	O	O	O	O	O	O	O	O	O	O	O	O	O
					1	24 5046	XXX	1	00	829	O	O	O	O	O	O	O	O	O	O	O	O	O	O

Types without strain relief offer greater space saving on the pcb

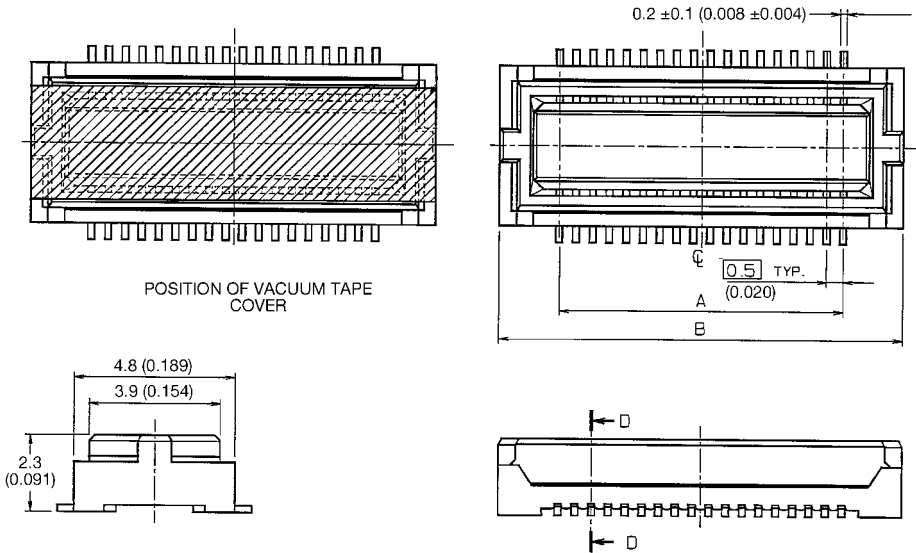
O = Available
1 = Not available

Fine Pitch SMT Board to Board Connectors

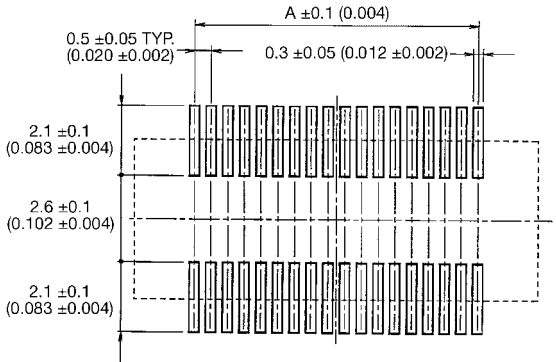
Series 5046

Plug for Mated Height with Receptacle of 3.0mm

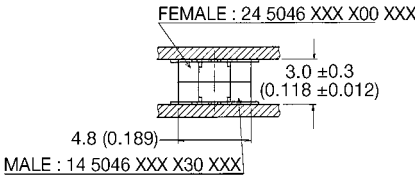
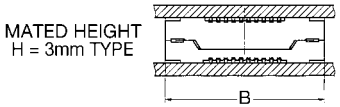
Without Strain Relief



No. of Pos.	Dimension	
	A	B
020	4.5 (0.177)	8.1 (0.319)
030	7.0 (0.276)	10.6 (0.417)
040	9.5 (0.374)	13.1 (0.516)
050	12.0 (0.472)	15.6 (0.614)
060	14.5 (0.571)	18.1 (0.713)
070	17.0 (0.669)	20.6 (0.811)
080	19.5 (0.768)	23.1 (0.909)
090	22.0 (0.866)	25.6 (1.008)
100	24.0 (0.945)	28.1 (1.106)
110	27.0 (1.063)	30.5 (1.201)
120	29.5 (1.161)	33.1 (1.303)



RECOMMENDED P.C. BOARD LAYOUT



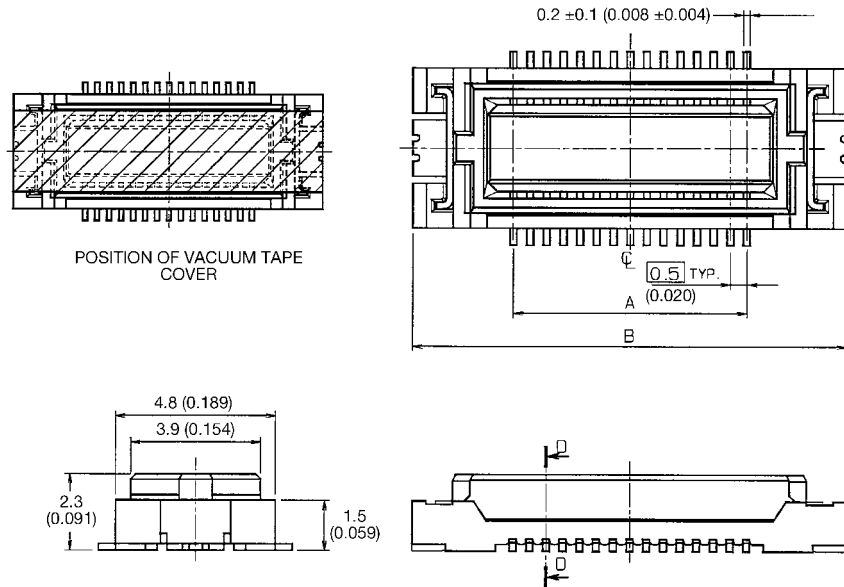
Fine Pitch SMT Board to Board Connectors

Series 5046

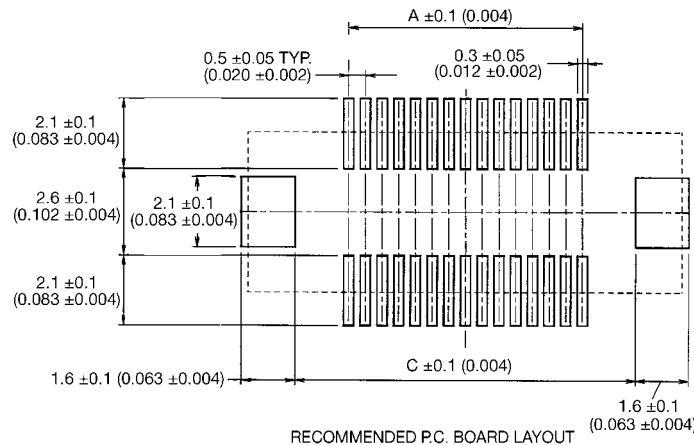
Plug for Mated Height with Receptacle of 3.0mm



With Strain Relief



No. of Pos.	Dimension		
	A	B	C
020	4.5 (0.177)	10.5 (0.413)	7.7 (0.303)
030	7.0 (0.276)	13.0 (0.512)	10.2 (0.402)
040	9.5 (0.374)	15.5 (0.610)	12.7 (0.500)
050	12.0 (0.472)	18.0 (0.709)	15.2 (0.598)
060	14.5 (0.571)	20.5 (0.807)	17.7 (0.697)
070	17.0 (0.669)	23.0 (0.906)	20.2 (0.795)
080	19.5 (0.768)	25.5 (1.004)	22.7 (0.894)
090	22.0 (0.866)	28.0 (1.102)	25.2 (0.992)
100	24.5 (0.965)	30.5 (1.201)	27.7 (1.091)
110	27.0 (1.063)	33.0 (1.299)	30.2 (1.189)
120	29.5 (1.161)	35.5 (1.398)	32.7 (1.287)



HOW TO ORDER

14	5046	XXX	X30	829
Prefix 14 = Male	Series Number	Number of Positions	Variation Code 0 = Without strain relief 1 = With strain relief 5 = Without strain relief, with vacuum cover 6 = With strain relief, with vacuum cover	Finish Code
		020 030 040 050 060 070 080 090 100 110 120		

Parts are supplied in tape and reel packaging with 1000 pieces per reel.

Mated Height	P/N	
3.0mm	Female	24 5046 XXX X00 829
	Male	14 5046 XXX X30 829

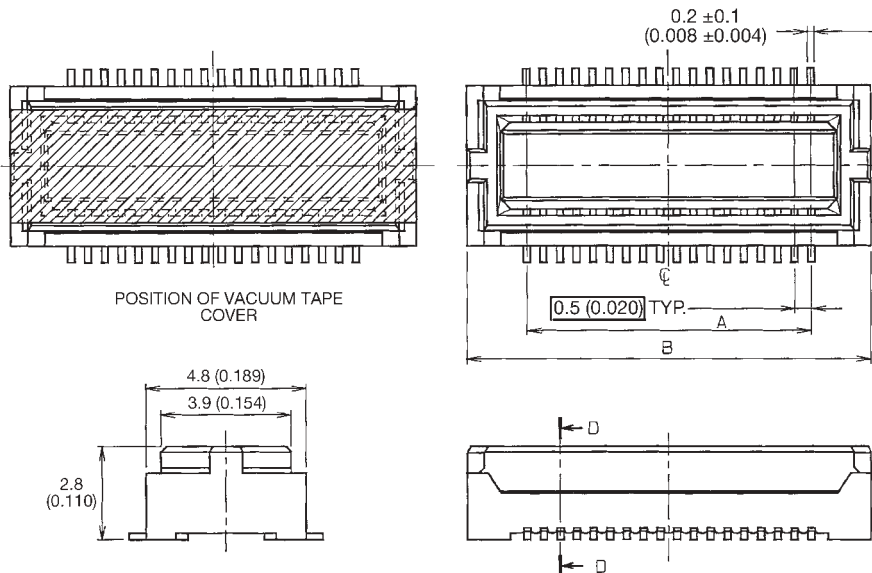
Fine Pitch SMT Board to Board Connectors

Series 5046

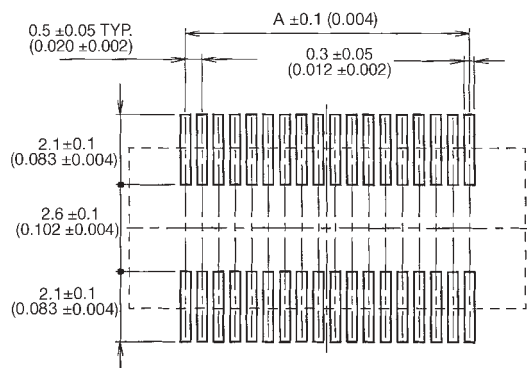
Plug for Mated Height with Receptacle of 3.5mm



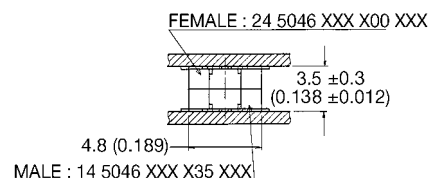
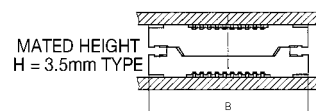
Without Strain Relief



No. of Pos.	Dimension	
	A	B
020	4.5 (0.177)	8.1 (0.319)
030	7.0 (0.276)	10.6 (0.417)
040	9.5 (0.374)	13.1 (0.516)
050	12.0 (0.472)	15.6 (0.614)
060	14.5 (0.571)	18.1 (0.713)
070	17.0 (0.669)	20.6 (0.811)
080	19.5 (0.768)	23.1 (0.909)
090	22.0 (0.866)	25.6 (1.008)
100	24.0 (0.945)	28.1 (1.106)
110	27.0 (1.063)	30.5 (1.201)
120	29.5 (1.161)	33.1 (1.303)



RECOMMENDED P.C. BOARD LAYOUT



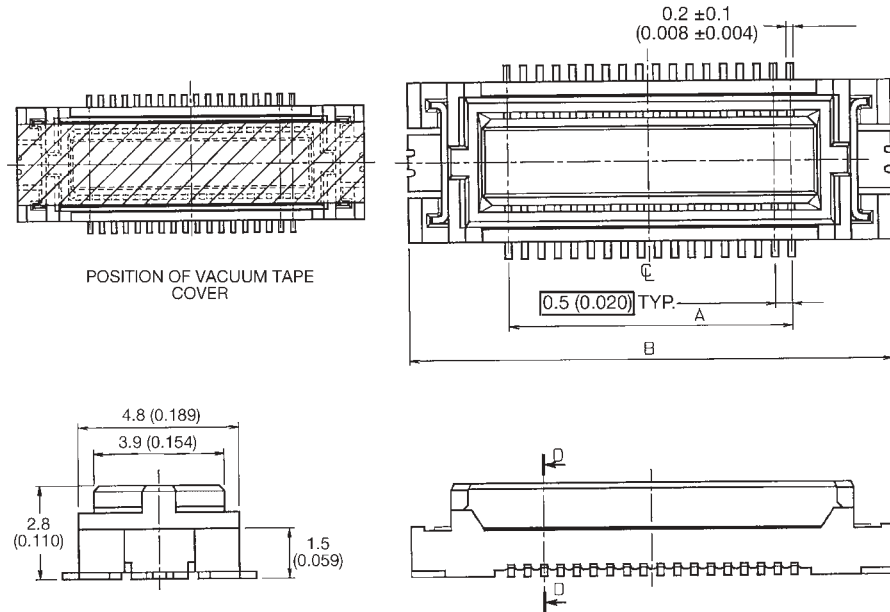
Fine Pitch SMT Board to Board Connectors

Series 5046

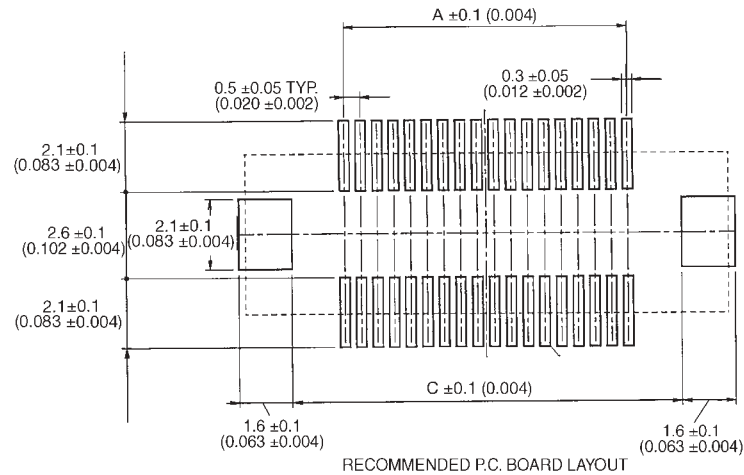
Plug for Mated Height with Receptacle of 3.5mm



With Strain Relief



No. of Pos.	Dimension		
	A	B	C
020	4.5 (0.177)	10.5 (0.413)	7.7 (0.303)
030	7.0 (0.276)	13.0 (0.512)	10.2 (0.402)
040	9.5 (0.374)	15.5 (0.610)	12.7 (0.500)
050	12.0 (0.472)	18.0 (0.709)	15.2 (0.598)
060	14.5 (0.571)	20.5 (0.807)	17.7 (0.697)
070	17.0 (0.669)	23.0 (0.906)	20.2 (0.795)
080	19.5 (0.768)	25.5 (1.004)	22.7 (0.894)
090	22.0 (0.866)	28.0 (1.102)	25.2 (0.992)
100	24.5 (0.945)	30.5 (1.201)	27.7 (1.091)
110	27.0 (1.063)	33.0 (1.299)	30.2 (1.189)
120	29.5 (1.161)	35.5 (1.398)	32.7 (1.287)



HOW TO ORDER

14

Prefix
14 = Male

5046

Series Number

XXX

Number of Positions

X35

Variation Code
0 = Without strain relief
1 = With strain relief
5 = Without strain relief,
with vacuum cover
6 = With strain relief,
with vacuum cover

829

Finish Code

Parts are supplied in tape and reel packaging
with 1000 pieces per reel.

Mated Height	P/N	
3.5mm	Female	24 5046 XXX X00 829
	Male	14 5046 XXX X35 829

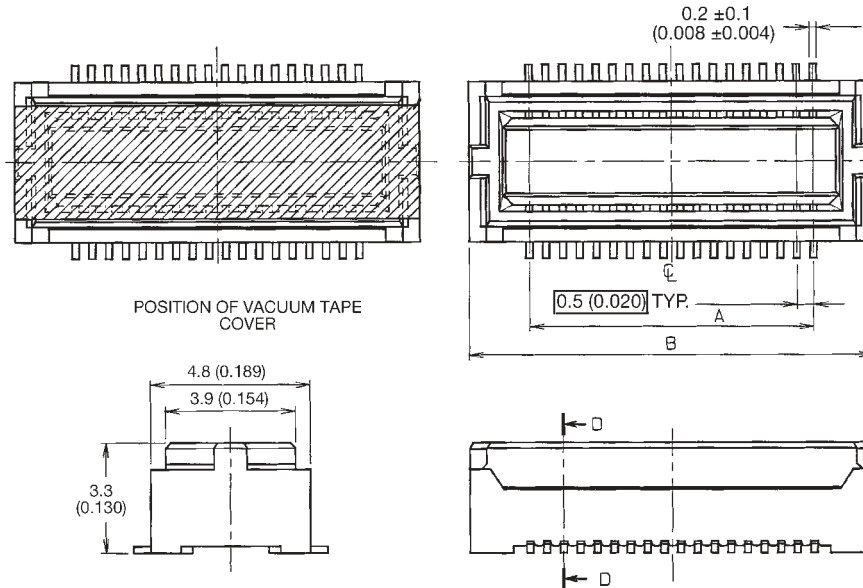
Fine Pitch SMT Board to Board Connectors

Series 5046

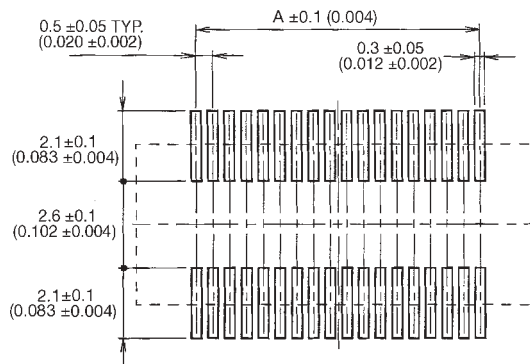
Plug for Mated Height with Receptacle of 4.0mm



Without Strain Relief

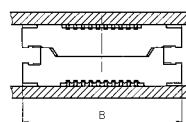


No. of Pos.	Dimension	
	A	B
020	4.5 (0.177)	8.1 (0.319)
030	7.0 (0.276)	10.6 (0.417)
040	9.5 (0.374)	13.1 (0.516)
050	12.0 (0.472)	15.6 (0.614)
060	14.5 (0.571)	18.1 (0.713)
070	17.0 (0.669)	20.6 (0.811)
080	19.5 (0.768)	23.1 (0.909)
090	22.0 (0.866)	25.6 (1.008)
100	24.0 (0.945)	28.1 (1.106)
110	27.0 (1.063)	30.5 (1.201)
120	29.5 (1.161)	33.1 (1.303)

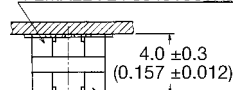


RECOMMENDED P.C. BOARD LAYOUT

MATED HEIGHT
H = 4mm TYPE



FEMALE : 24 5046 XXX X00 XXX



MALE : 14 5046 XXX X40 XXX

4.8 (0.189)

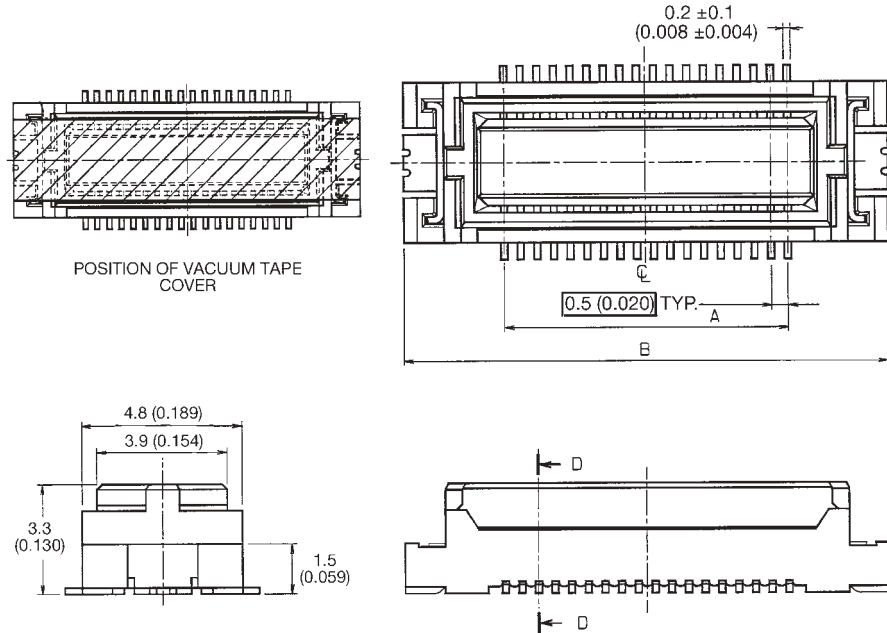
Fine Pitch SMT Board to Board Connectors



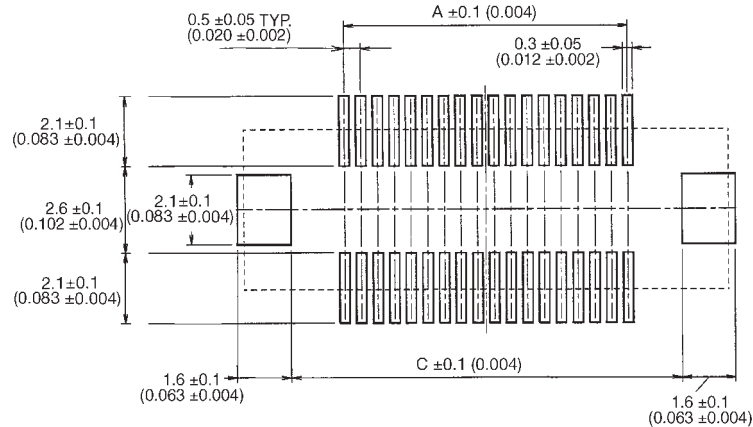
Series 5046

Plug for Mated Height with Receptacle of 4.0mm

With Strain Relief



No. of Pos.	Dimension		
	A	B	C
020	4.5 (0.177)	10.5 (0.413)	7.7 (0.303)
030	7.0 (0.276)	13.0 (0.512)	10.2 (0.402)
040	9.5 (0.374)	15.5 (0.610)	12.7 (0.500)
050	12.0 (0.472)	18.0 (0.709)	15.2 (0.598)
060	14.5 (0.571)	20.5 (0.807)	17.7 (0.697)
070	17.0 (0.669)	23.0 (0.906)	20.2 (0.795)
080	19.5 (0.768)	25.5 (1.004)	22.7 (0.894)
090	22.0 (0.866)	28.0 (1.102)	25.2 (0.992)
100	24.5 (0.965)	30.5 (1.201)	27.7 (1.091)
110	27.0 (1.063)	33.0 (1.299)	30.2 (1.189)
120	29.5 (1.161)	35.5 (1.398)	32.7 (1.287)



RECOMMENDED P.C. BOARD LAYOUT

HOW TO ORDER

14

Prefix
14 = Male

5046

Series Number

XXX

Number of Positions

020
030
040
050
060
070
080
090
100
110
120

X40

Variation Code
0 = Without strain relief
1 = With strain relief
5 = Without strain relief, with vacuum cover
6 = With strain relief, with vacuum cover

829

Finish Code

Parts are supplied in tape and reel packaging with 1000 pieces per reel.

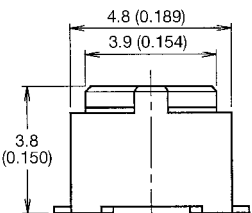
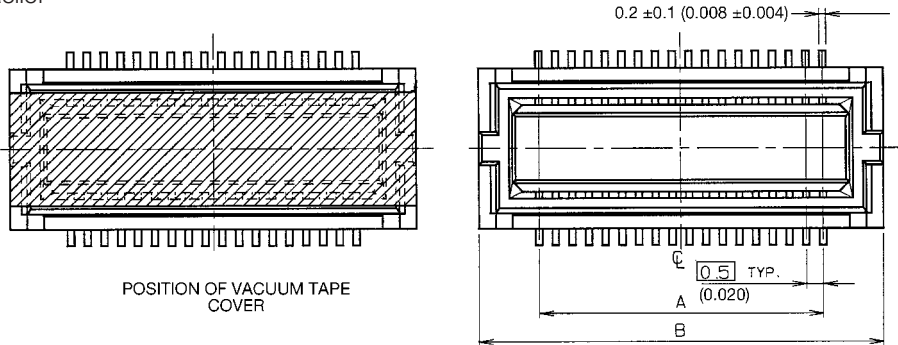
Mated Height	P/N	
4.0mm	Female	24 5046 XXX X00 829
	Male	14 5046 XXX X40 829

Fine Pitch SMT Board to Board Connectors

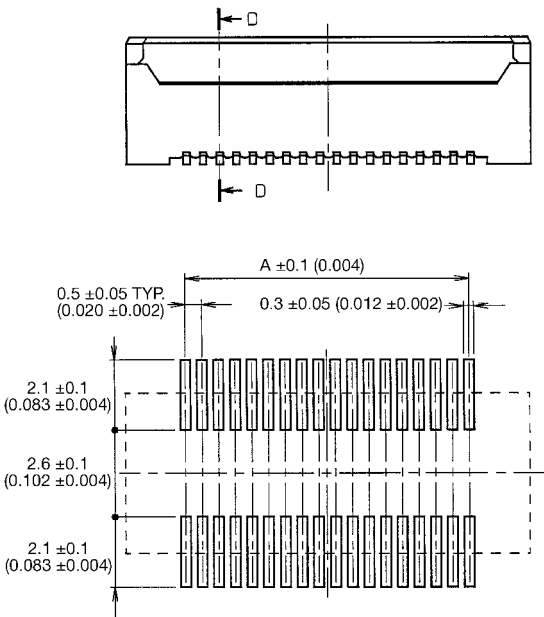
Series 5046

Plug for Mated Height with Receptacle of 4.5mm

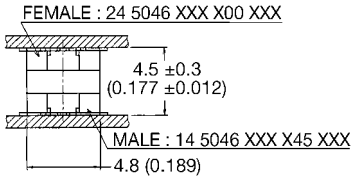
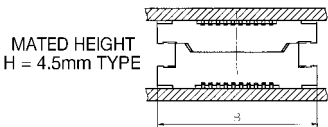
Without Strain Relief



No. of Pos.	Dimension	
	A	B
020	4.5 (0.177)	8.1 (0.319)
030	7.0 (0.276)	10.6 (0.417)
040	9.5 (0.374)	13.1 (0.516)
050	12.0 (0.472)	15.6 (0.614)
060	14.5 (0.571)	18.1 (0.713)
070	17.0 (0.669)	20.6 (0.811)
080	19.5 (0.768)	23.1 (0.909)
090	22.0 (0.866)	25.6 (1.008)
100	24.0 (0.945)	28.1 (1.106)
110	27.0 (1.063)	30.6 (1.205)
120	29.5 (1.161)	33.1 (1.303)



RECOMMENDED P.C. BOARD LAYOUT

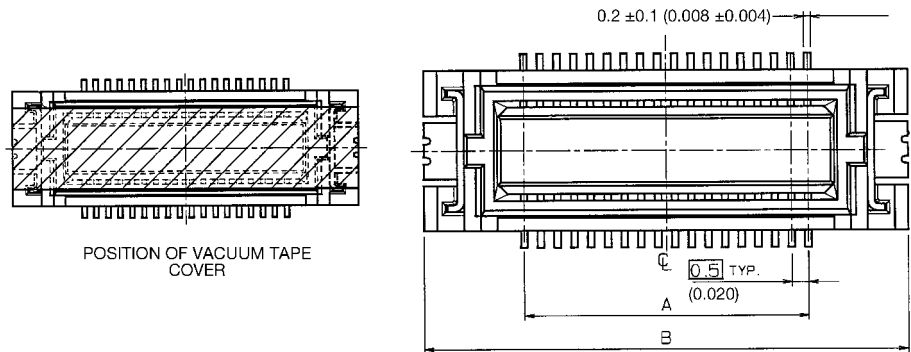


Fine Pitch SMT Board to Board Connectors

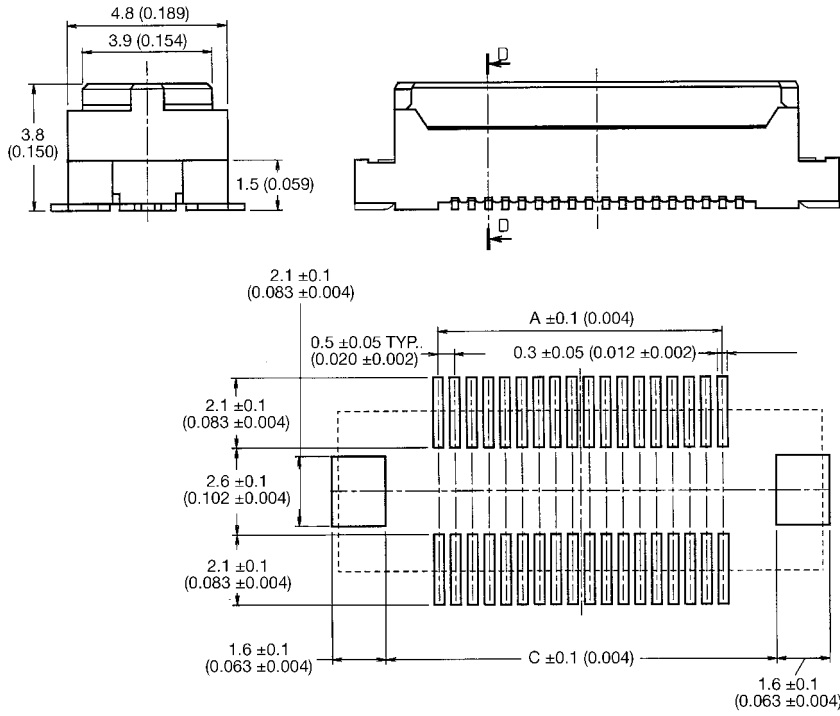
Series 5046

Plug for Mated Height with Receptacle of 4.5mm

With Strain Relief



No. of Pos.	Dimension		
	A	B	C
020	4.5 (0.177)	10.5 (0.413)	7.7 (0.303)
030	7.0 (0.276)	13.0 (0.512)	10.2 (0.402)
040	9.5 (0.374)	15.5 (0.610)	12.7 (0.500)
050	12.0 (0.472)	18.0 (0.709)	15.2 (0.598)
060	14.5 (0.571)	20.5 (0.807)	17.7 (0.697)
070	17.0 (0.669)	23.0 (0.906)	20.2 (0.795)
080	19.5 (0.768)	25.5 (1.004)	22.7 (0.894)
090	22.0 (0.866)	28.0 (1.102)	25.2 (0.992)
100	24.5 (0.965)	30.5 (1.201)	27.7 (1.091)
110	27.0 (1.063)	33.0 (1.299)	30.2 (1.189)
120	29.5 (1.161)	35.5 (1.398)	32.7 (1.287)



RECOMMENDED P.C. BOARD LAYOUT

HOW TO ORDER

14

Prefix
14 = Male

5046

Series Number

XXX

Number of Positions

020
030
040
050
060
070
080
090
100
110
120

X45

Variation Code
0 = Without strain relief
1 = With strain relief
5 = Without strain relief,
with vacuum cover
6 = With strain relief,
with vacuum cover

829

Finish Code

Parts are supplied in tape and reel packaging
with 1000 pieces per reel.

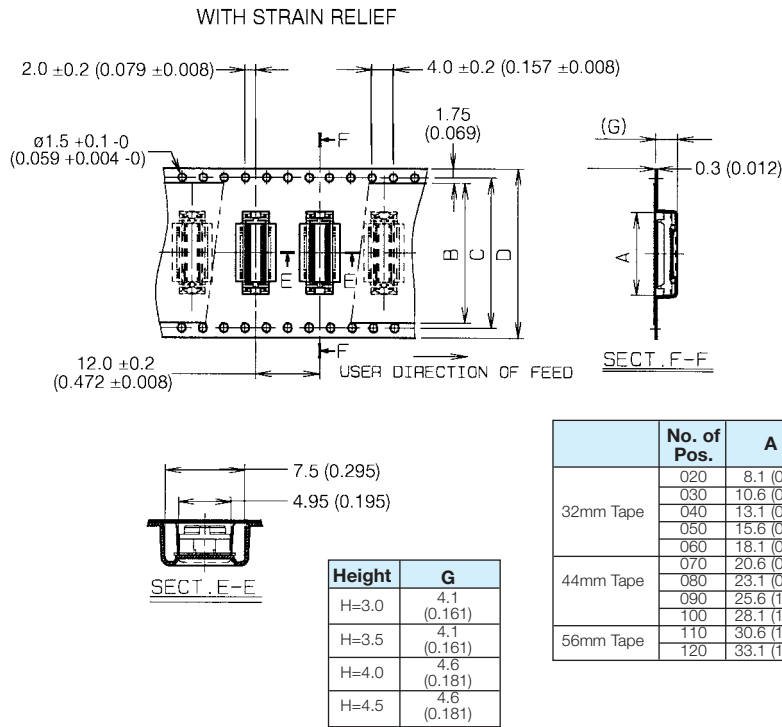
Mated Height	P/N	
4.5mm	Female	24 5046 XXX X00 829
	Male	14 5046 XXX X45 829

Fine Pitch SMT

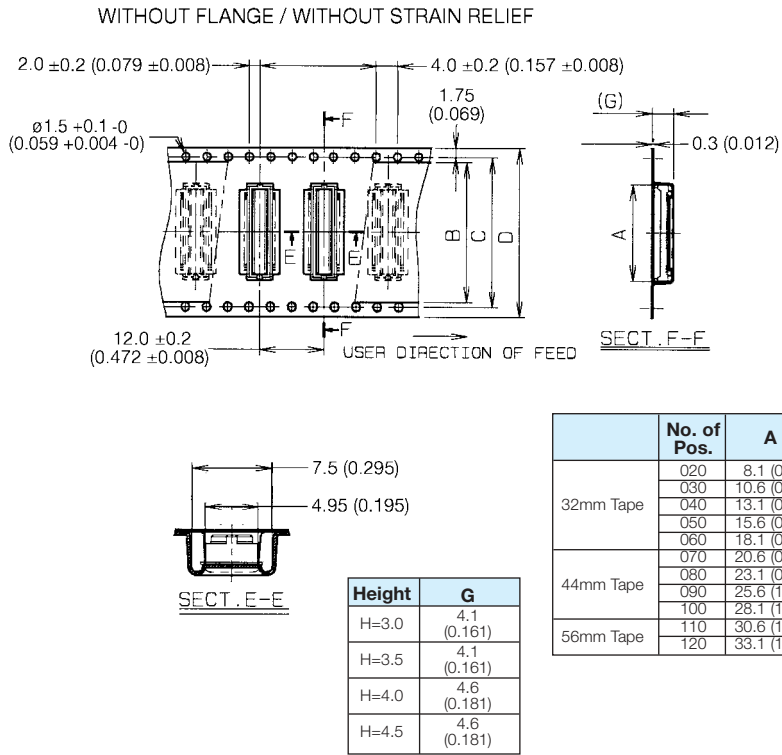
Board to Board Connectors

Series 5046 Plug Tape and Reel Package

H=3.0, 3.5, 4.0, 4.5mm



	No. of Pos.	A	B	C	D
32mm Tape	020	8.1 (0.319)			
	030	10.6 (0.417)			
	040	13.1 (0.516)	26.5 (1.043)	28.4 (1.118)	32.0 (1.260)
	050	15.6 (0.614)			
	060	18.1 (0.713)			
44mm Tape	070	20.6 (0.811)			
	080	23.1 (0.909)	38.5 (1.516)	40.4 (1.591)	44.0 (1.732)
	090	25.6 (1.008)			
	100	28.1 (1.106)			
56mm Tape	110	30.6 (1.205)	50.5 (1.988)	52.4 (2.063)	56.0 (2.205)
	120	33.1 (1.303)			



	No. of Pos.	A	B	C	D
32mm Tape	020	8.1 (0.319)			
	030	10.6 (0.417)			
	040	13.1 (0.516)	26.5 (1.043)	28.4 (1.118)	32.0 (1.260)
	050	15.6 (0.614)			
	060	18.1 (0.713)			
44mm Tape	070	20.6 (0.811)			
	080	23.1 (0.909)	38.5 (1.516)	40.4 (1.591)	44.0 (1.732)
	090	25.6 (1.008)			
	100	28.1 (1.106)			
56mm Tape	110	30.6 (1.205)	50.5 (1.988)	52.4 (2.063)	56.0 (2.205)
	120	33.1 (1.303)			

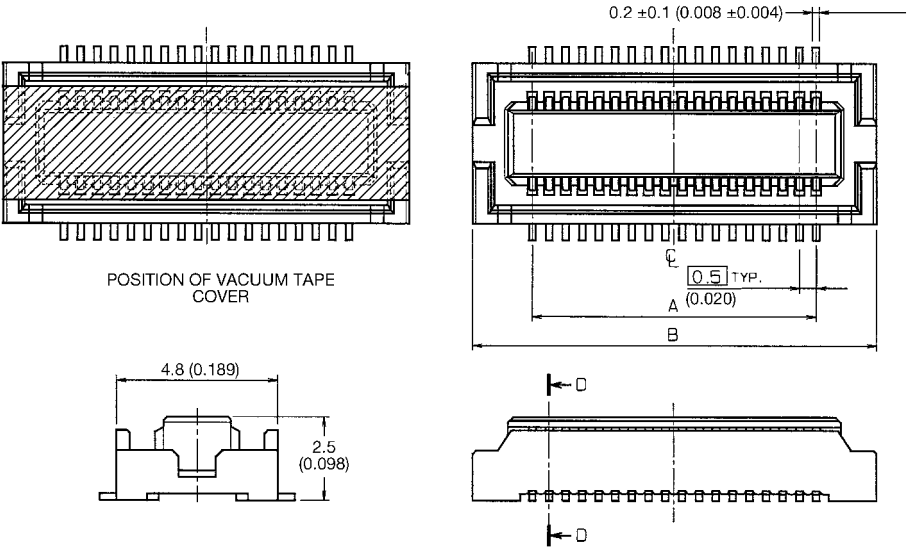
Fine Pitch SMT Board to Board Connectors



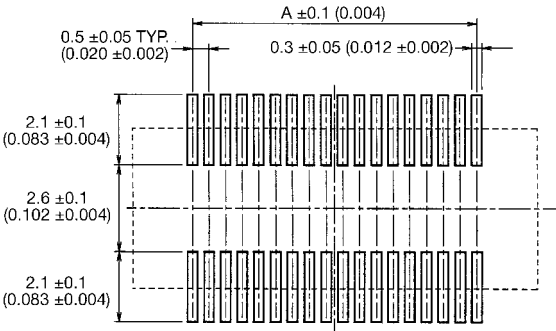
Series 5046

Receptacle for Mated Height with Plug of 3.0, 3.5, 4.0 or 4.5mm

Without Strain Relief



No. of Pos.	Dimension	
	A	B
020	4.5 (0.177)	8.1 (0.319)
030	7.0 (0.276)	10.6 (0.417)
040	9.5 (0.374)	13.1 (0.516)
050	12.0 (0.472)	15.6 (0.614)
060	14.5 (0.571)	18.1 (0.713)
070	17.0 (0.669)	20.6 (0.811)
080	19.5 (0.768)	23.1 (0.909)
090	22.0 (0.866)	25.6 (1.008)
100	24.5 (0.965)	28.1 (1.106)
110	27.0 (1.063)	30.6 (1.205)
120	29.5 (1.161)	33.1 (1.303)



RECOMMENDED P.C. BOARD LAYOUT

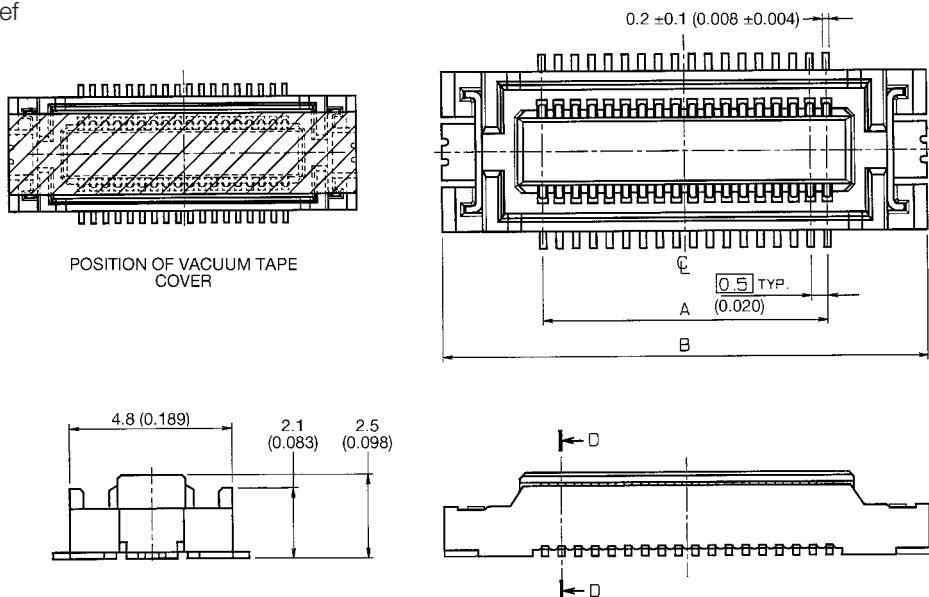
Fine Pitch SMT Board to Board Connectors



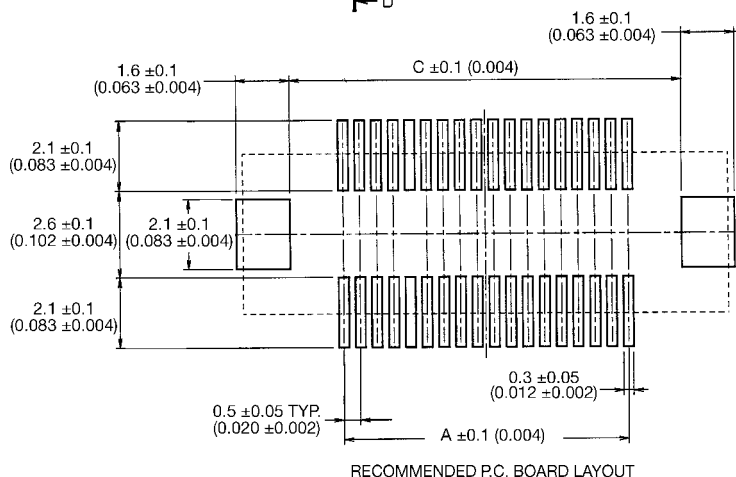
Series 5046

Receptacle for Mated Height with Plug of 3.0, 3.5, 4.0 or 4.5mm

With Strain Relief



No. of Pos.	Dimension		
	A	B	C
020	4.5 (0.177)	10.5 (0.413)	7.7 (0.303)
030	7.0 (0.276)	13.0 (0.512)	10.2 (0.402)
040	9.5 (0.374)	15.5 (0.610)	12.7 (0.500)
050	12.0 (0.472)	18.0 (0.709)	15.2 (0.598)
060	14.5 (0.571)	20.5 (0.807)	17.7 (0.697)
070	17.0 (0.669)	23.0 (0.906)	20.2 (0.795)
080	19.5 (0.768)	25.5 (1.004)	22.7 (0.894)
090	22.0 (0.866)	28.0 (1.102)	25.2 (0.992)
100	24.5 (0.965)	30.5 (1.201)	27.7 (1.091)
110	27.0 (1.063)	33.0 (1.299)	30.2 (1.189)
120	29.5 (1.161)	35.5 (1.398)	32.7 (1.287)



RECOMMENDED P.C. BOARD LAYOUT

HOW TO ORDER

24

Prefix
24 = Female

5046

Series Number

XXX

Number of Positions

020
030
040
050
060
070
080
090
100
110
120

X00

Variation Code

0 = Without strain relief
1 = With strain relief
5 = Without strain relief,
with vacuum cover
6 = With strain relief,
with vacuum cover

829

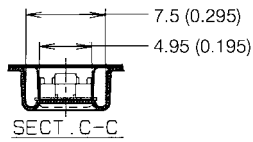
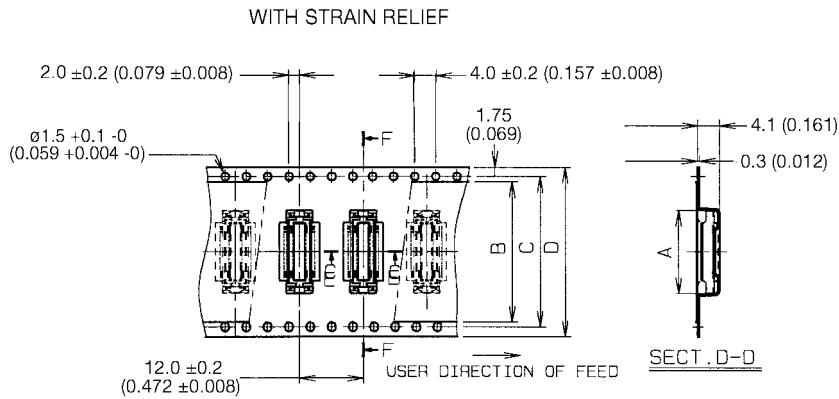
Finish Code

Parts are supplied in tape and reel packaging
with 1000 pieces per reel.

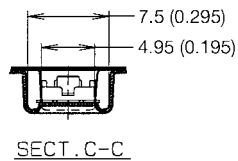
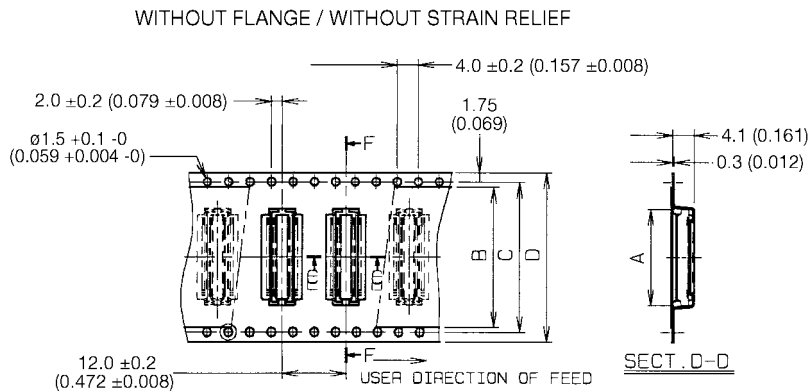
Mated Height	P/N	
4.5mm	Female	24 5046 XXX X00 829
	Male	14 5046 XXX X45 829
4.0mm	Female	24 5046 XXX X00 829
	Male	14 5046 XXX X40 829
3.5mm	Female	24 5046 XXX X00 829
	Male	14 5046 XXX X35 829
3.0mm	Female	24 5046 XXX X00 829
	Male	14 5046 XXX X30 829

Fine Pitch SMT Board to Board Connectors

Series 5046 Receptacle Tape and Reel Package



	No. of Pos.	A	B	C	D
32mm Tape	020	10.65 (0.419)			
	030	13.15 (0.518)			
	040	15.65 (0.616)	26.5 (1.043)	28.4 (1.118)	32.0 (1.260)
	050	18.15 (0.715)			
	060	20.65 (0.813)			
44mm Tape	070	23.15 (0.911)			
	080	25.65 (1.010)	38.5 (1.516)	40.4 (1.591)	44.0 (1.732)
	090	28.15 (1.108)			
	100	30.65 (1.207)			
56mm Tape	110	33.15 (1.305)	50.5 (1.988)	52.4 (2.063)	56.0 (2.205)
	120	35.65 (1.404)			



	No. of Pos.	A	B	C	D
32mm Tape	020	10.65 (0.419)			
	030	13.15 (0.518)			
	040	15.65 (0.616)	26.5 (1.043)	28.4 (1.118)	32.0 (1.260)
	050	18.15 (0.715)			
	060	20.65 (0.813)			
44mm Tape	070	23.15 (0.911)			
	080	25.65 (1.010)	38.5 (1.516)	40.4 (1.591)	44.0 (1.732)
	090	28.15 (1.108)			
	100	30.65 (1.207)			
56mm Tape	110	33.15 (1.305)	50.5 (1.988)	52.4 (2.063)	56.0 (2.205)
	120	35.65 (1.403)			