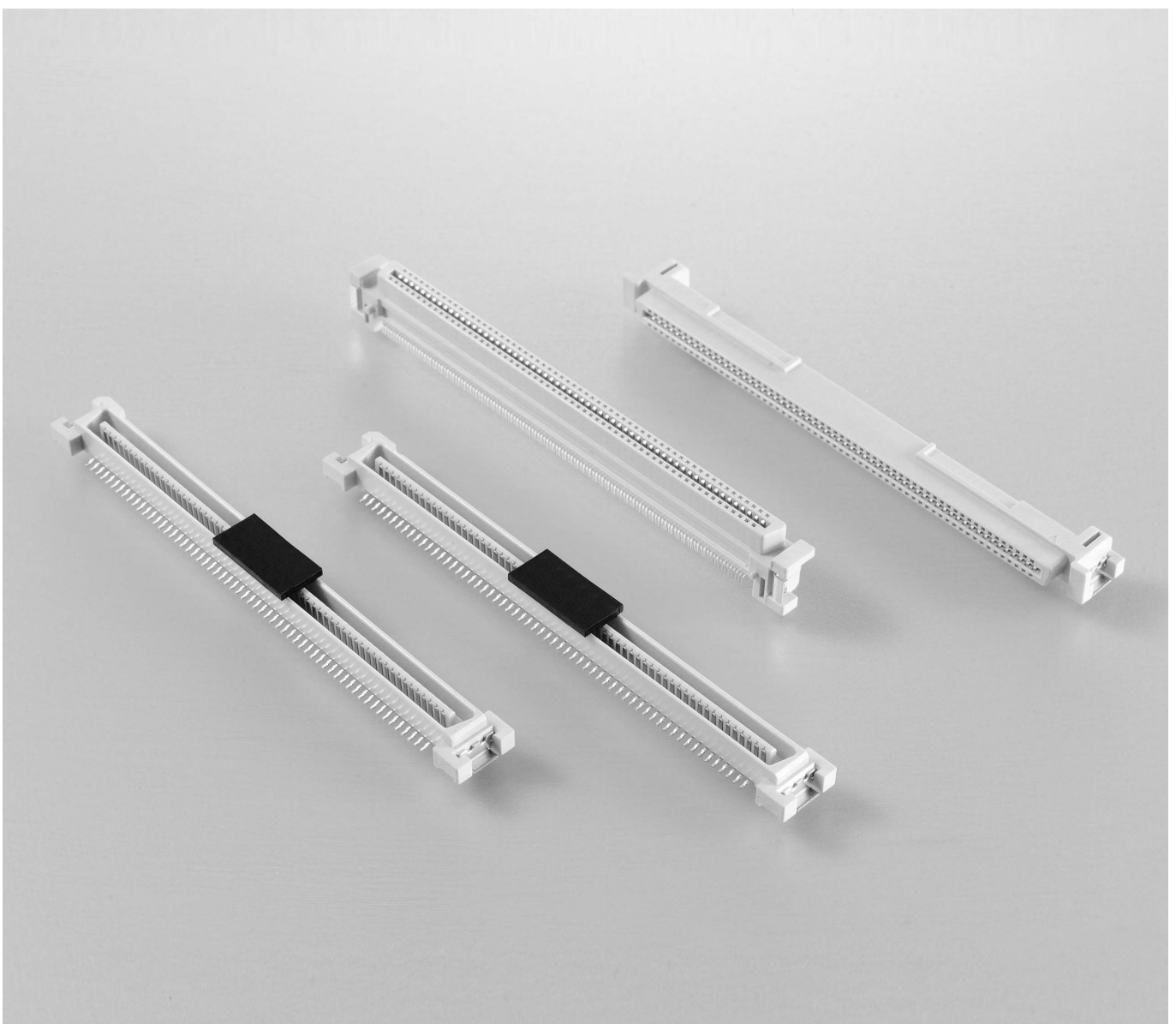
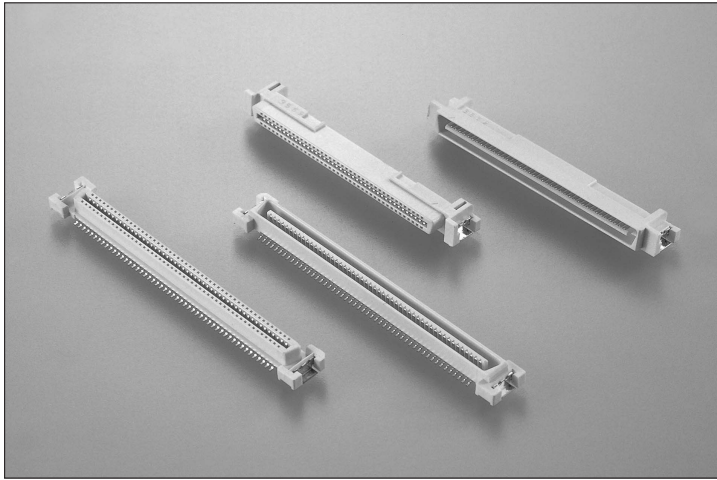


**3 DIMENSIONAL MATING HIGH RELIABILITY,
LOW PROFILE 1mm PITCH 2 PIECE SMT CONNECTOR**

87 SERIES





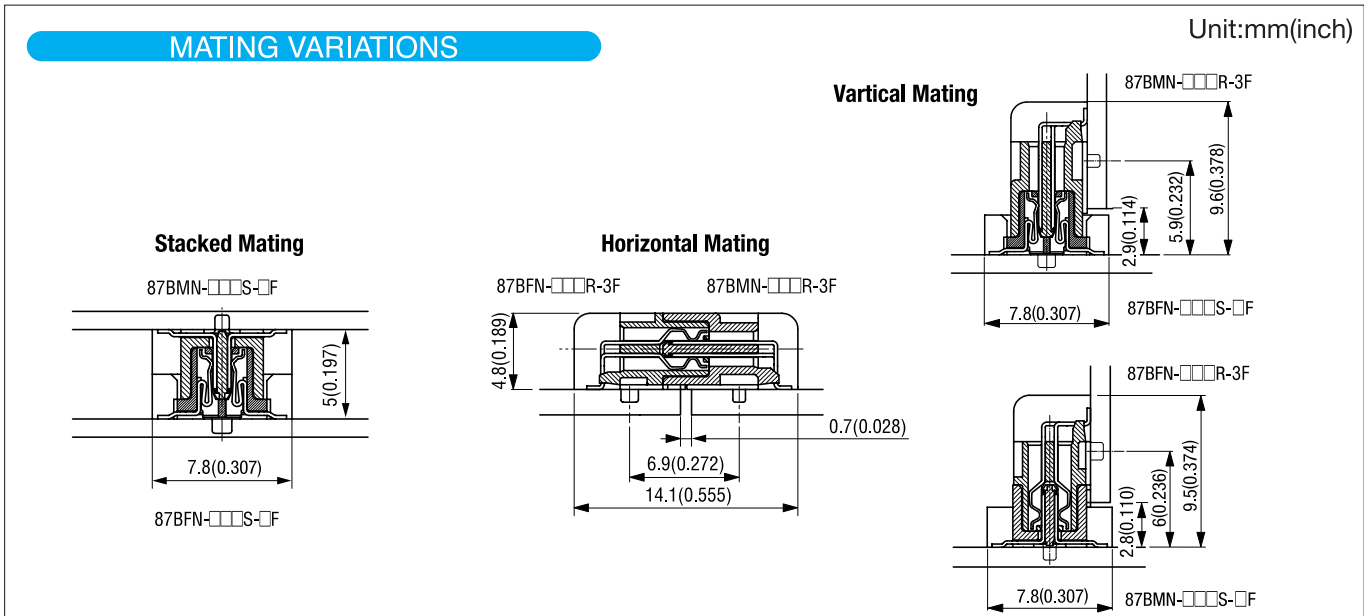
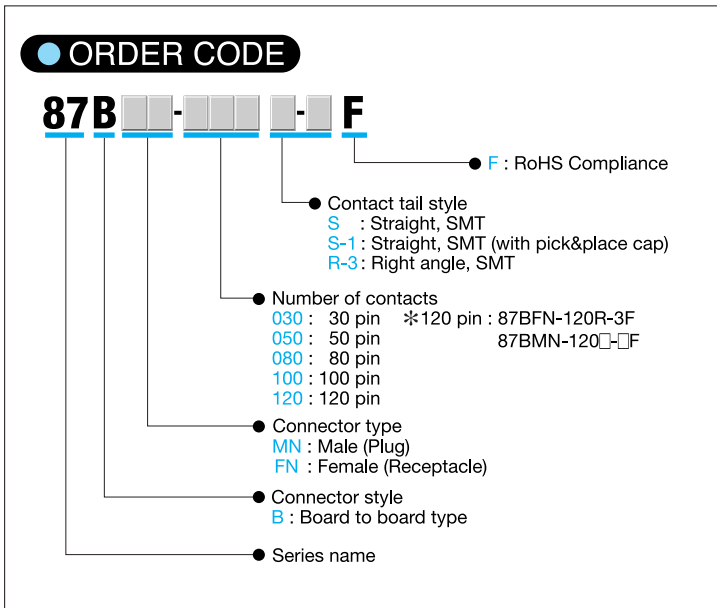
FEATURES

- 1mm pitch, high density and high reliability
- Low profile (5mm stacking height)
- Coplanarity 0.15mm, Skew ± 0.1 mm
- 3 mating variations (horizontal, stack and vertical)
- SMT retention clips reduce the stress on SMT lead pins
- 75% smaller than existing half pitch connectors
- Positioning posts for placement by hand
- RoHS compliance

SPECIFICATIONS

- Insulator : Glass-filled LCP (UL 94V-0), White
- Contact material : Copper alloy
- Plating : Contact area ; $0.05\mu\text{m}$ min. Gold over Nickel
Terminal area ; $0.03\mu\text{m}$ min. Gold over Nickel
- Current rating : 0.5A per contact
- Contact resistance : $50\text{m}\Omega$ max.
- Dielectric withstanding voltage : 315V AC for 1 minute
- Insulation resistance : $1,000\text{M}\Omega$ min. at 500V DC
- Operating temperature : -55°C to $+85^\circ\text{C}$

- * Please order in multiples of quantity per packaging tray.
 - 30 and 50 pins — 80 pcs. / tray
 - 80,100 and 120 pins — 40 pcs. / tray
- * Care is required in reflow working; please consult sales of our company in advance.

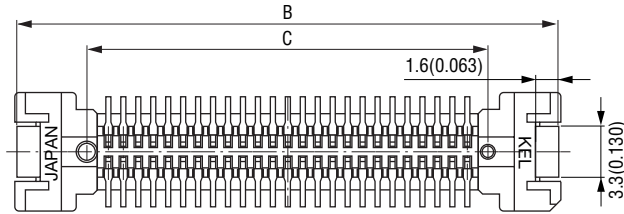
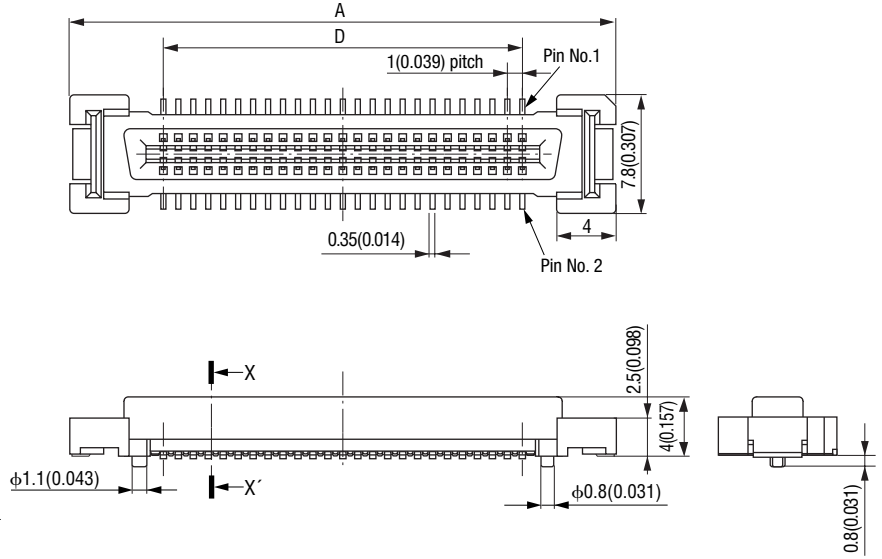
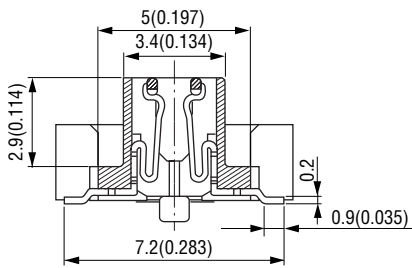


87BFN-□□□S-□F (Receptacle)

Unit:mm(inch)

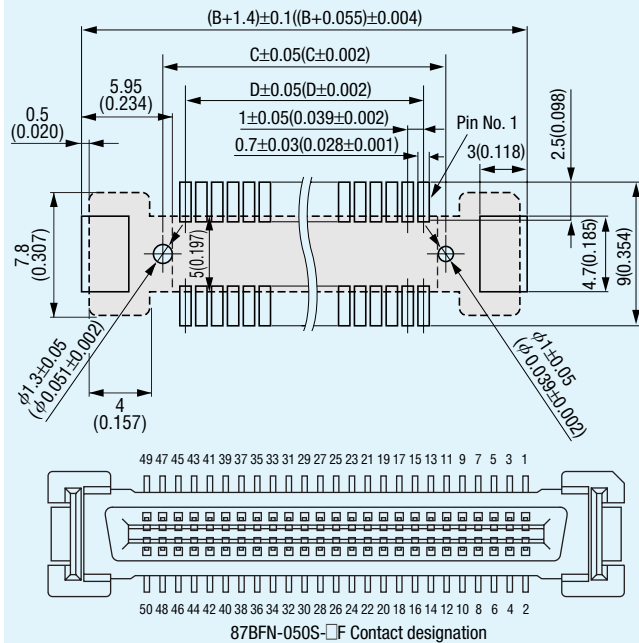


X-X' Cross Section



SMT lead thickness: T=0.2(0.008)
Metal retention pad thickness: T=0.3(0.012)

Printed Circuit Board Layout (Component Side View)



87BFN-050S-□F Contact designation

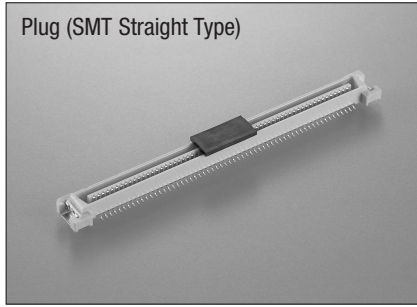
Packaging style
Tray

Product Table / Dimensions

No. of Contacts	Part Number	A	B	C	D	Number of packaging
30	87BFN-030S-□F	26.5 (1.043)	26.1 (1.028)	17.0 (0.669)	14.0 (0.551)	80
50	87BFN-050S-□F	36.5 (1.437)	36.1 (1.421)	27.0 (1.063)	24.0 (0.945)	80
80	87BFN-080S-□F	51.5 (2.028)	51.1 (2.012)	42.0 (1.654)	39.0 (1.535)	40
100	87BFN-100S-□F	61.5 (2.421)	61.1 (2.406)	52.0 (2.047)	49.0 (1.929)	40

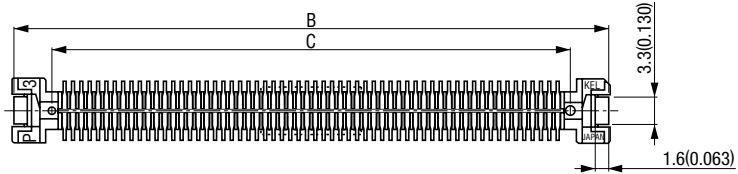
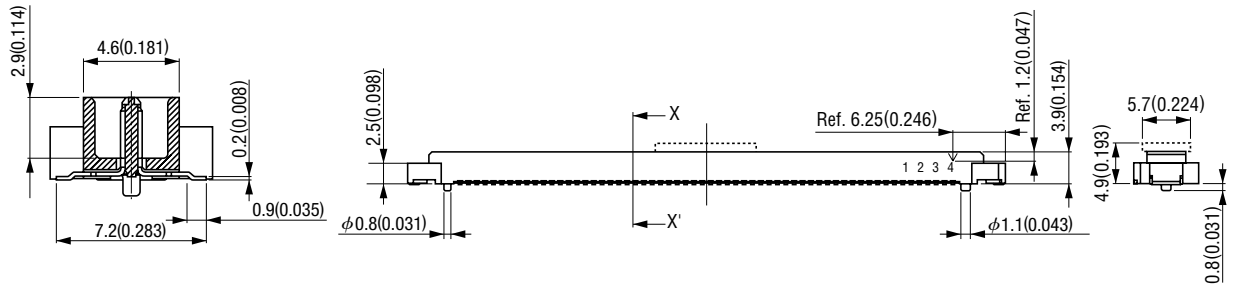
87BMN-□□□S-□F (Plug)

Unit:mm(inch)



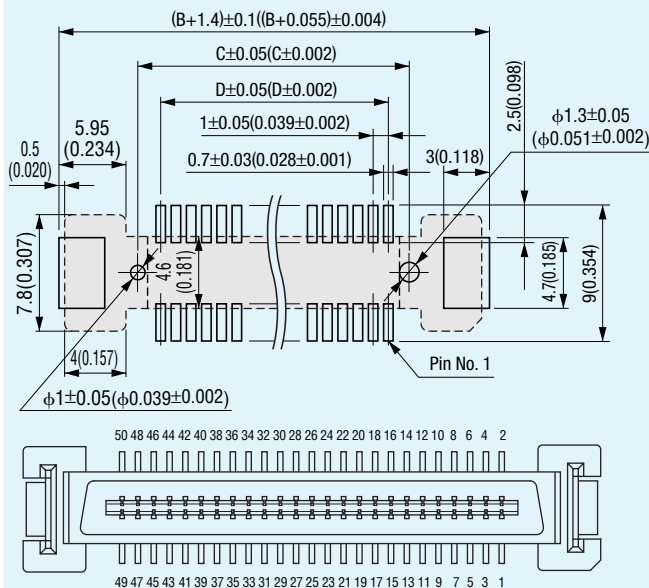
Plug (SMT Straight Type)

X-X' Cross Section



SMT lead thickness: T=0.2(0.008)
Metal retention pad thickness: T=0.3(0.012)

Printed Circuit Board Layout (Component Side View)



87BMN-050S-□F Contact designation

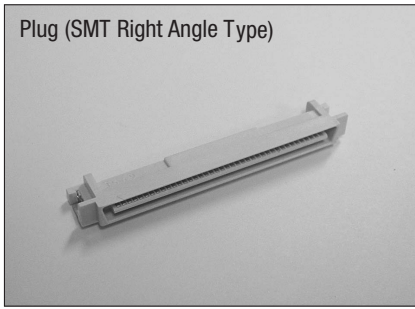
Packaging style
Tray

Product Table / Dimensions

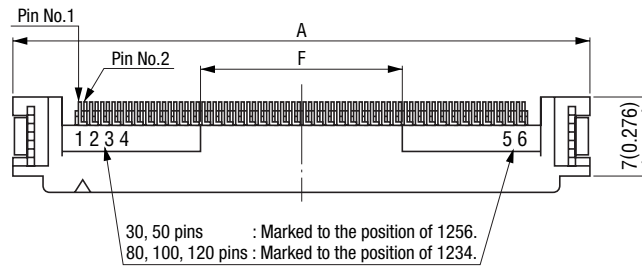
No. of contacts	Part Number	A	B	C	D	E	Number of packaging
30	87BMN-030S-□F	26.5 (1.043)	26.1 (1.028)	17.0 (0.669)	14.0 (0.551)	13.25 (0.522)	80
50	87BMN-050S-□F	36.5 (1.437)	36.1 (1.421)	27.0 (1.063)	24.0 (0.945)	18.25 (0.719)	80
80	87BMN-080S-□F	51.5 (2.028)	51.1 (2.012)	42.0 (1.654)	39.0 (1.535)	25.75 (1.014)	40
100	87BMN-100S-□F	61.5 (2.421)	61.1 (2.406)	52.0 (2.047)	49.0 (1.929)	30.75 (1.211)	40
120	87BMN-120S-□F	71.5 (2.815)	71.1 (2.799)	62.0 (2.441)	59.0 (2.323)	35.75 (1.407)	40

87BMN-□□□R-3F(Plug)

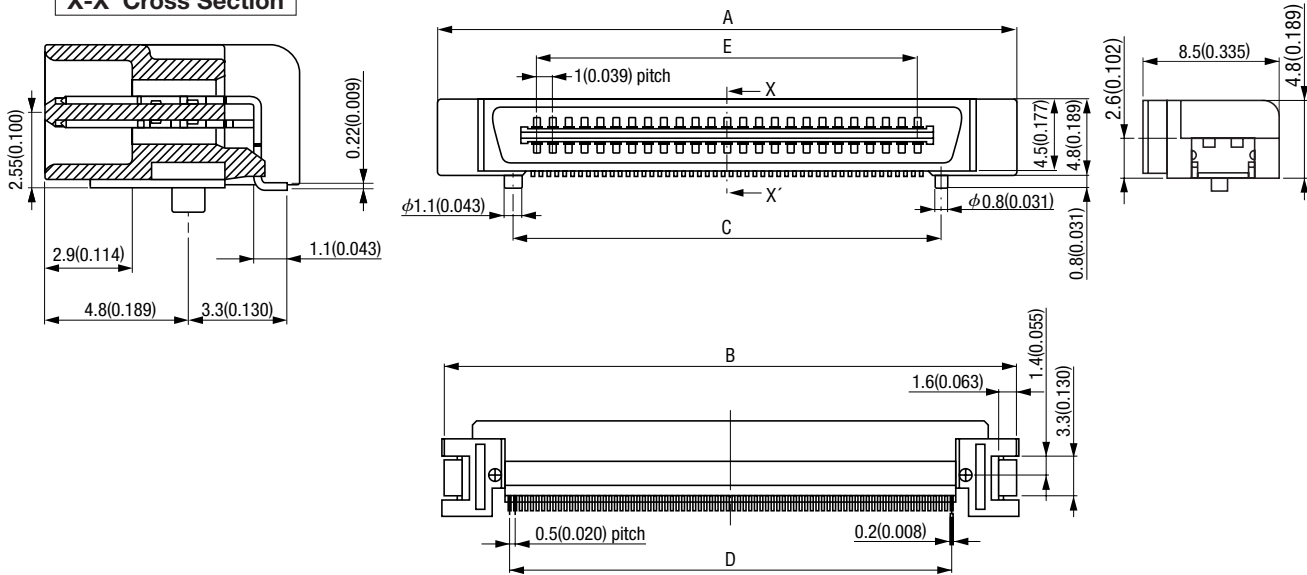
Unit:mm(inch)



Plug (SMT Right Angle Type)

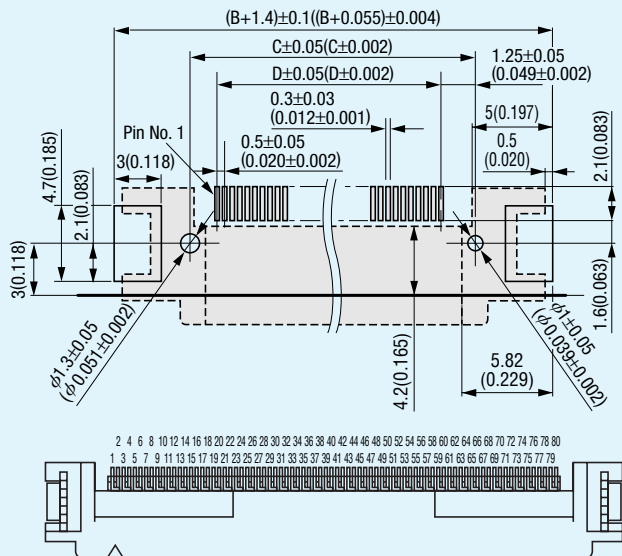


X-X' Cross Section



SMT lead thickness: T=0.22(0.009)
Metal retention pad thickness: T=0.3(0.012)

Printed Circuit Board Layout (Component Side View)



87BMN-050R-3F Contact designation

Packaging style
Tray

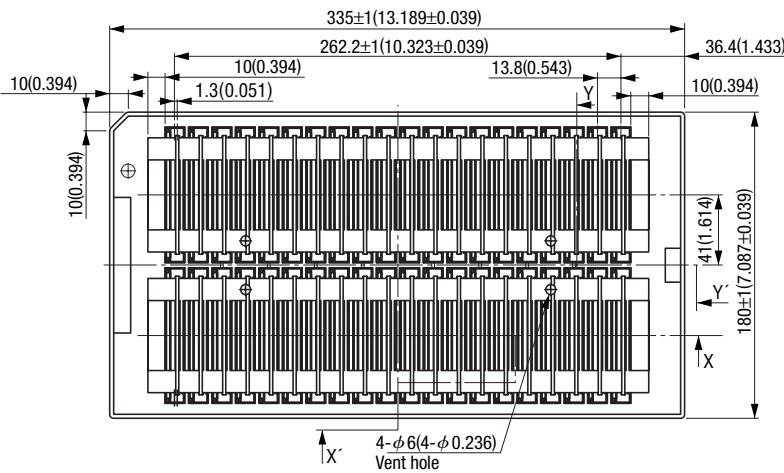
Product Table / Dimensions

No. of contacts	Part Number	A	B	C	D	E	F	Number of packaging
30	87BMN-030R-3F	26.5 (1.043)	26.1 (1.028)	17.0 (0.669)	14.5 (0.571)	14.0 (0.551)	10.0 (0.394)	80
50	87BMN-050R-3F	36.5 (1.437)	36.1 (1.421)	27.0 (1.063)	24.5 (0.965)	24.0 (0.945)	15.0 (0.591)	80
80	87BMN-080R-3F	51.5 (2.028)	51.1 (2.012)	42.0 (1.654)	39.5 (1.555)	39.0 (1.535)	18.0 (0.709)	40
100	87BMN-100R-3F	61.5 (2.421)	61.1 (2.406)	52.0 (2.047)	49.5 (1.949)	49.0 (1.929)	18.0 (0.709)	40
120	87BMN-120R-3F	71.5 (2.815)	71.1 (2.799)	62.0 (2.441)	59.5 (2.343)	59.0 (2.323)	20.0 (0.787)	40

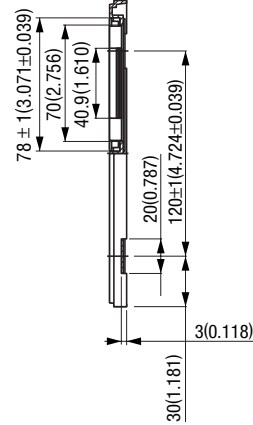
For 87BFN-□□□R-3F (Right Angle Type)

- 30 and 50 pins — 80 pcs. / tray
- 80,100 and 120 pins — 40 pcs. / tray

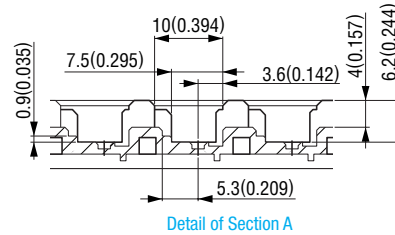
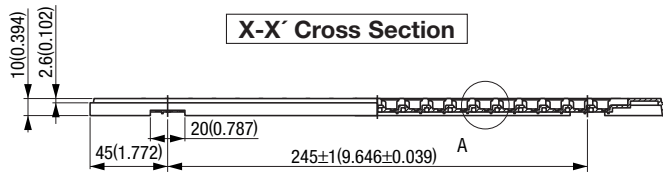
Unit:mm(inch)



Y-Y' Cross Section



X-X' Cross Section



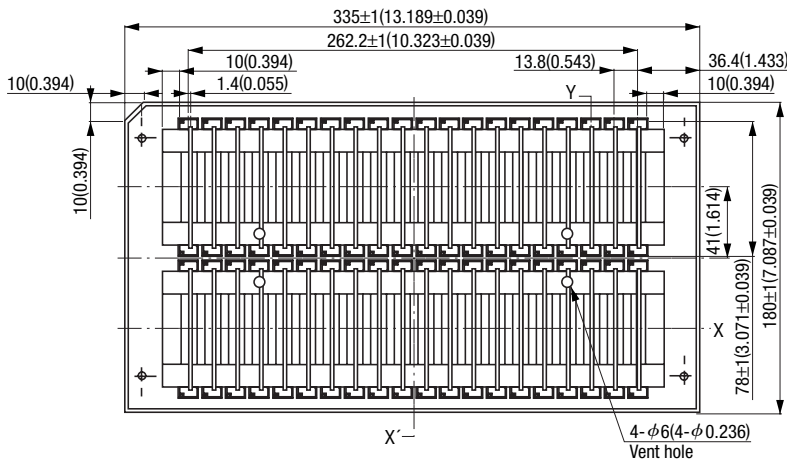
Number of packaging

No. of contacts	Tray
30	80
50	80
80	40
100	40
120	40

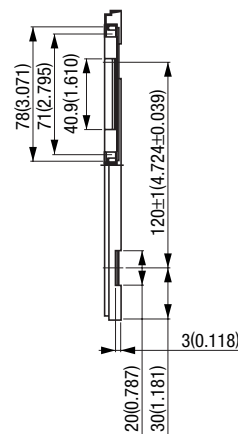
For 87BMN-□□□R-3F (Right Angle Type)

- 30 and 50 pins — 80 pcs. / tray
- 80,100 and 120 pins — 40 pcs. / tray

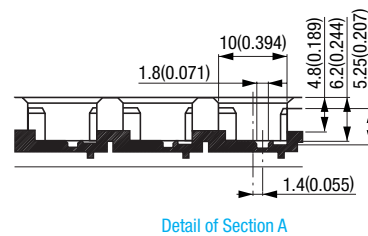
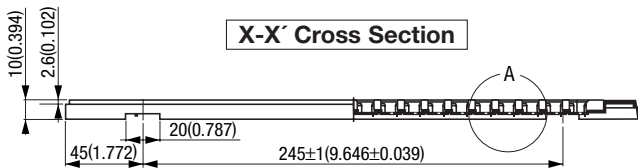
Unit:mm(inch)



Y-Y' Cross Section



X-X' Cross Section



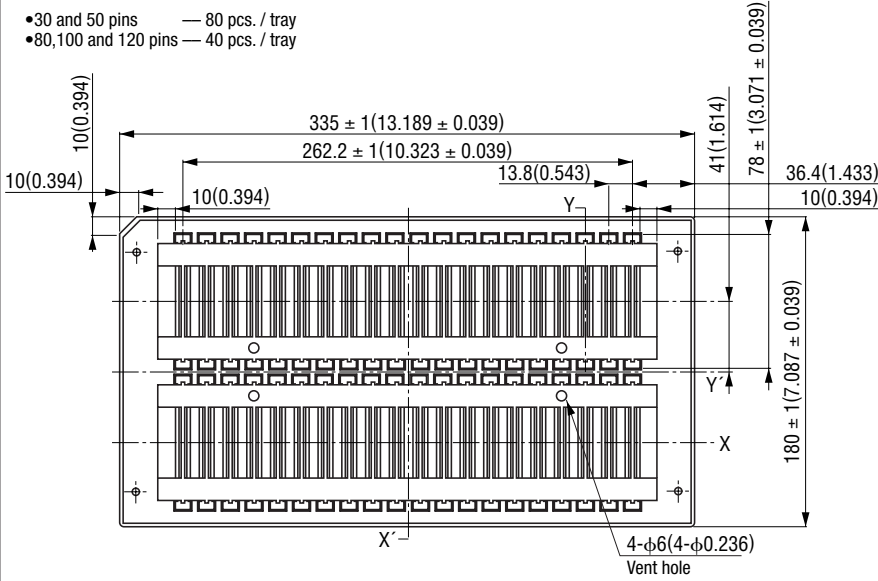
Number of packaging

No. of contacts	Tray
30	80
50	80
80	40
100	40
120	40

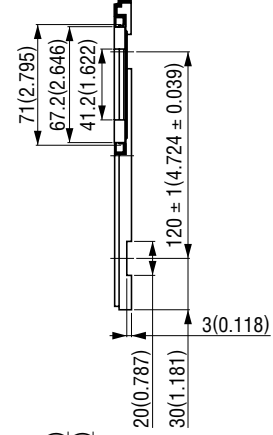
For 87B□N-□□□S-□F (Straight Type)

- 30 and 50 pins — 80 pcs. / tray
- 80, 100 and 120 pins — 40 pcs. / tray

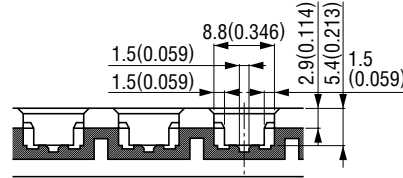
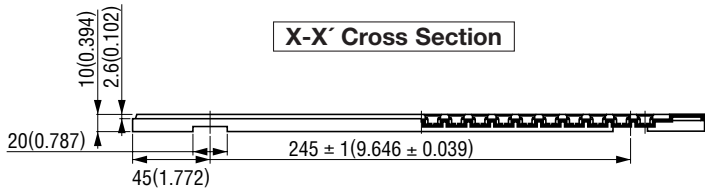
Unit:mm(inch)



Y-Y' Cross Section



X-X' Cross Section



Detail of Section A

■ Number of packaging

No. of contacts	Tray
30	80
50	80
80	40
100	40
120	40