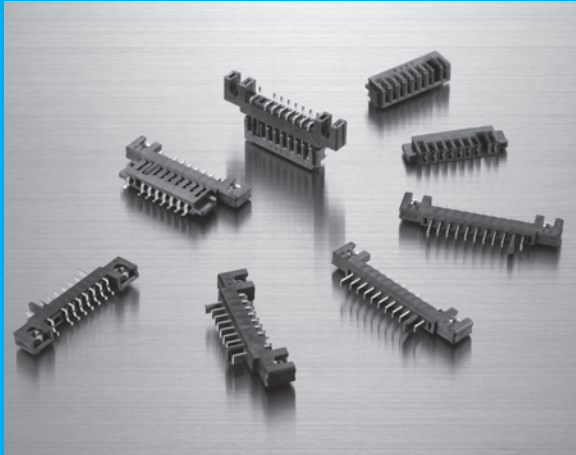


# GF SERIES

## 2mm PITCH 2 PIECE BATTERY CONNECTOR

RoHS  
Compliant



### FEATURES

- ▶ 2 piece type with a highly reliable connection.
- ▶ Hot Swap type available.
- ▶ 2mm (0.079") pitch connector.
- ▶ Horizontal and Vertical mating combinations.
- ▶ Assures 5,000 mating cycles.
- ▶ Low profile 2.6mm(0.102"). (GF31 series)

### ORDER CODE

GF    -    -    F

①            ②            ③            ④

\*Please order in multiples of the quantity per package.

- ① **[Type]** Plug **GF01** : SMT, Standard type **GF02** : SMT, Reverse type **GF21** : SMT, Standard type, Low profile **GF22** : SMT, Reverse type, Low profile Receptacle **GF11** : SMT **GF12** : Through hole **GF31** : SMT, Low profile
- ② **[Number of contacts]** **08** : 8pin **10** : 10pin (GF21, GF22 and GF31 only)
- ③ **[Nut]** (GF01/GF02) **1** : With Nuts **12** : Without Nuts **[Tail length]** (GF12) **1** : 1.5mm(0.059") **2** : 2.3mm(0.091")  
**[Option]** (GF11/GF21/GF22/GF31) **1**
- ④ **[RoHS]** **F** : RoHS compliant

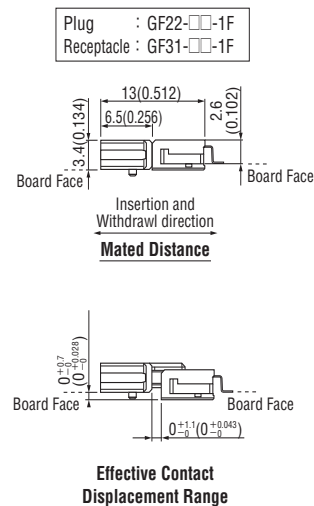
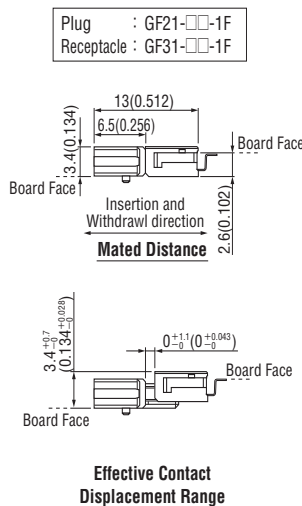
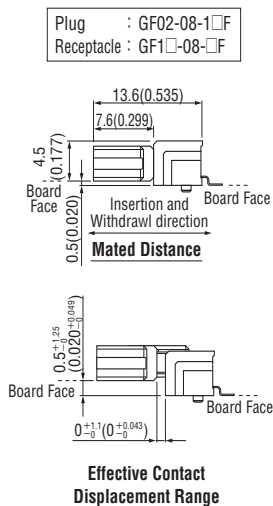
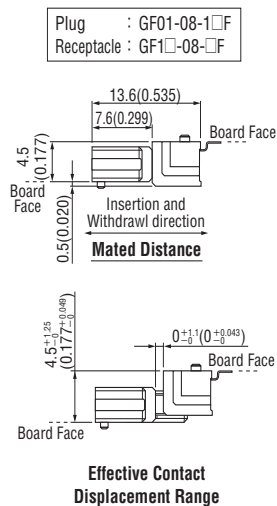
### SPECIFICATIONS

Material and plating		Electrical Characteristics	
Insulator material	Glass-filled LCP (UL94V-0), Black	Current rating	[GF0□ X GF1□] 7A per contact (2 contacts only) 0.5A per contact (other contact)
Contact material	Copper alloy		[GF2□ X GF1□/31] 5A per contact (2 contacts only) 0.5A per contact (other contact)
Contact plating	Gold over Nickel	Current voltage	30V DC
M2 Hexagon Nut	Steel	Contact resistance	20mΩ max.
M2 Hexagon Nut plating	Nickel	Dielectric withstanding voltage	650V AC for 1 minute
		Insulation resistance	500MΩ min. at 500V DC
		Operating temperature	-55°C to +85°C

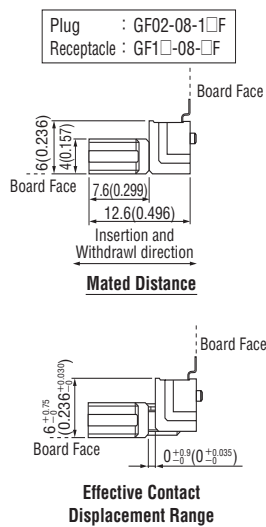
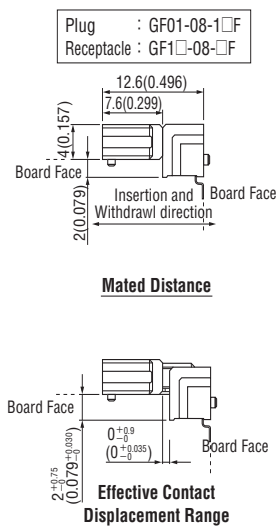
### GF Series Mating Matrix

		Receptacle Connector		
		GF11-08-1F	GF12-08-□F	GF31-□□-1F(Low profile)
Plug Connector	GF01-08-1F	Horizontal / Vertical	Horizontal / Vertical	No
	GF01-08-12F	Horizontal / Vertical	Horizontal / Vertical	No
	GF02-08-1F	Horizontal / Vertical	Horizontal / Vertical	No
	GF02-08-12F	Horizontal / Vertical	Horizontal / Vertical	No
	GF21-□□-1F(Low profile)	Horizontal	Horizontal	Horizontal
	GF22-□□-1F(Low profile)	Horizontal	Horizontal	Horizontal

◆ Horizontal Mating

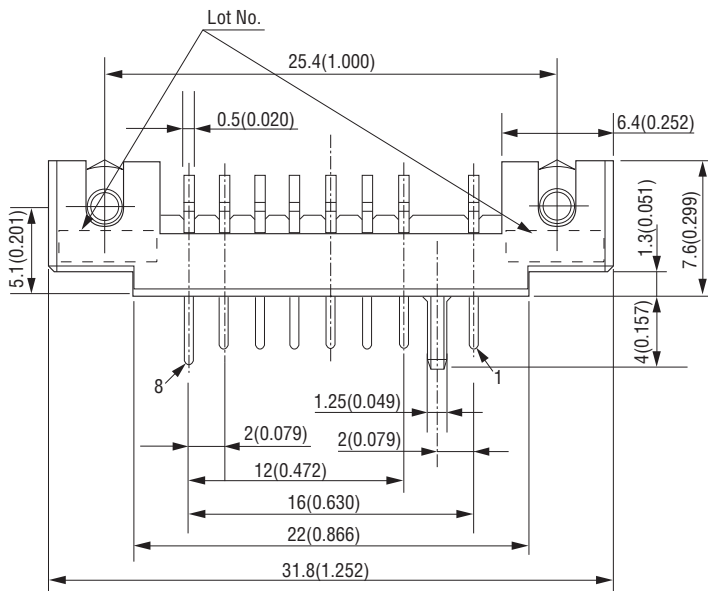
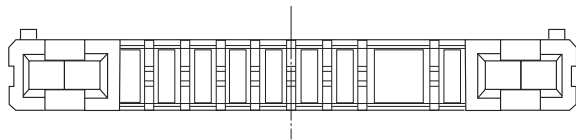
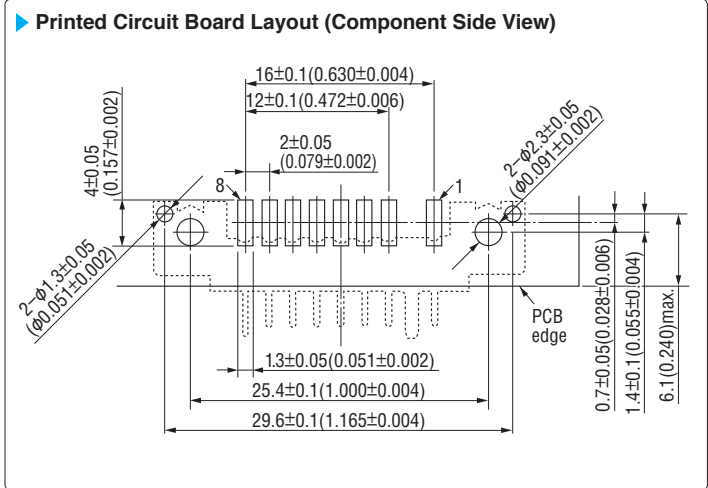


◆ Vertical Mating

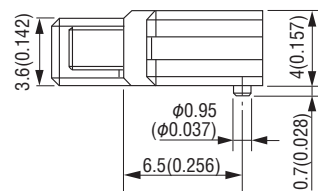
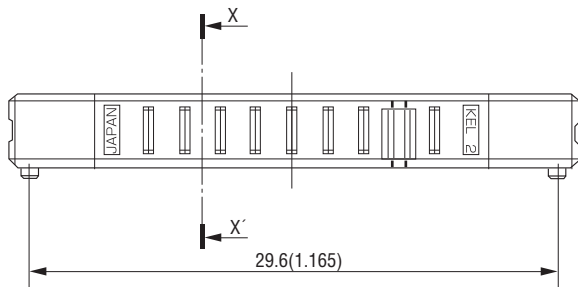
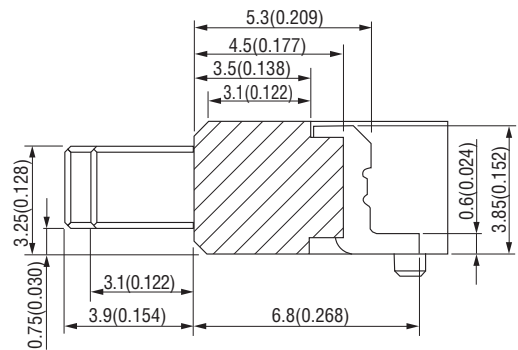


# GF01-08-1F (Plug, SMT, With nuts)

Unit : mm(inch)



X-X' Cross Section

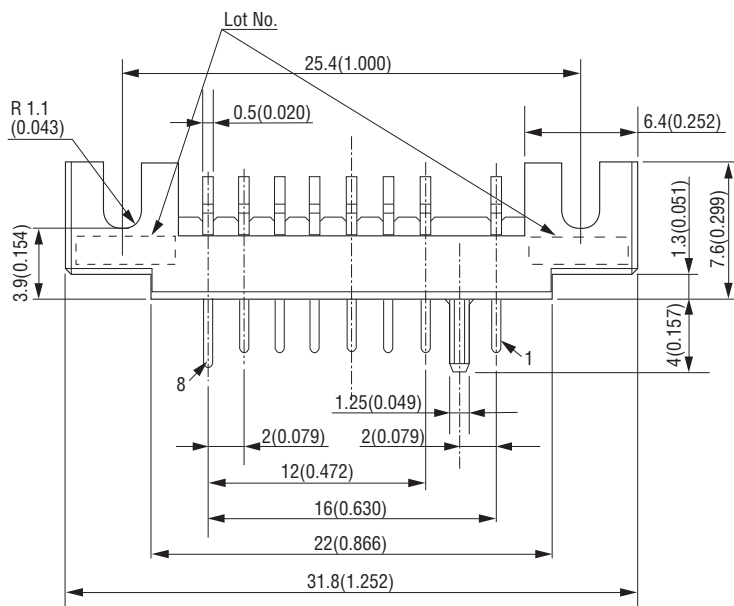
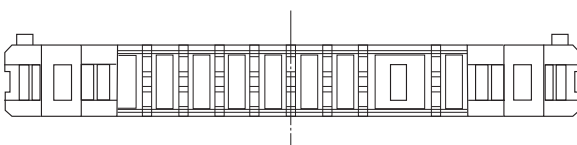
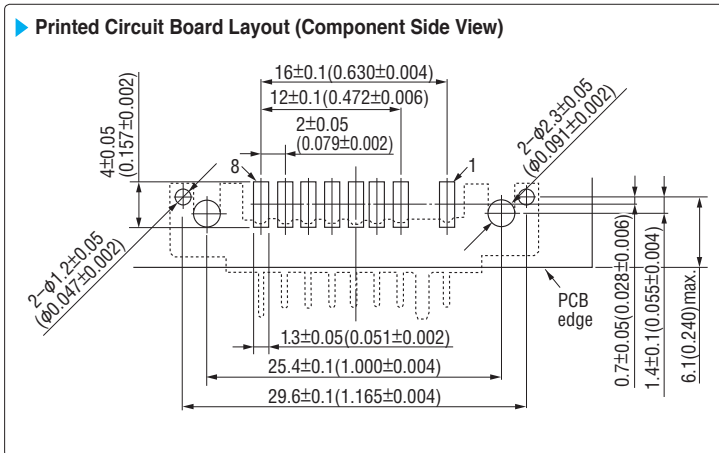


Packaging style

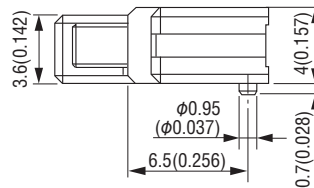
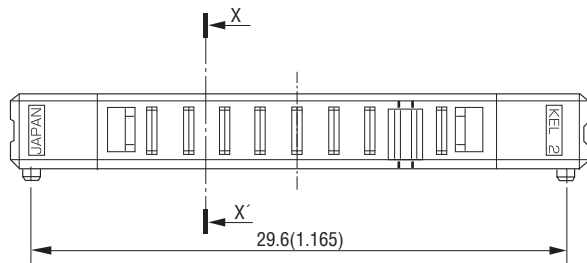
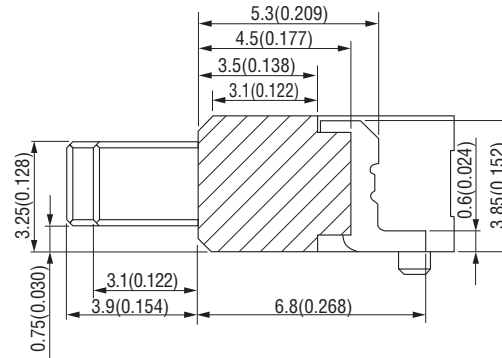
Embossed tape

► Product Table

No. of contacts	Part Number	Number of packaging
8	GF01-08-1F	500



X-X' Cross Section



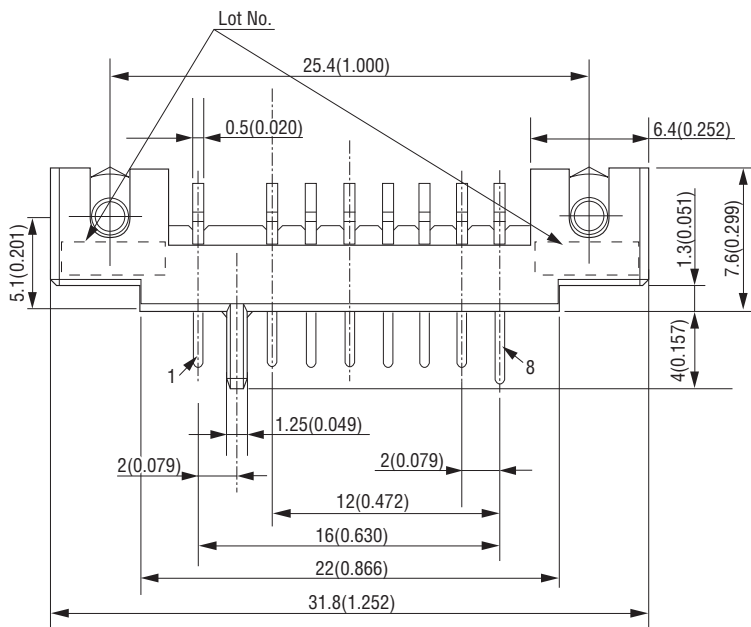
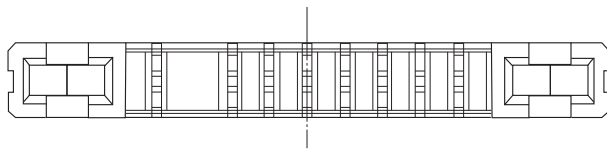
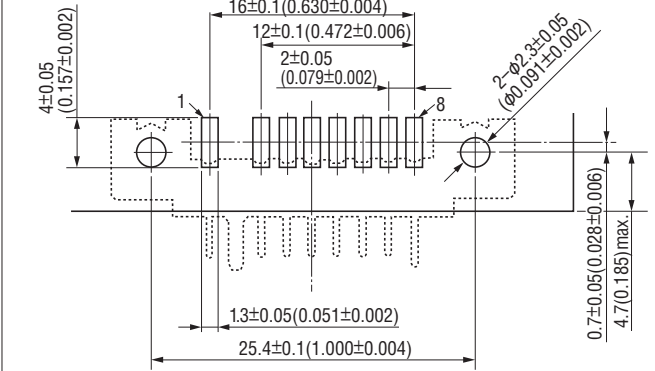
Packaging style

Embossed tape

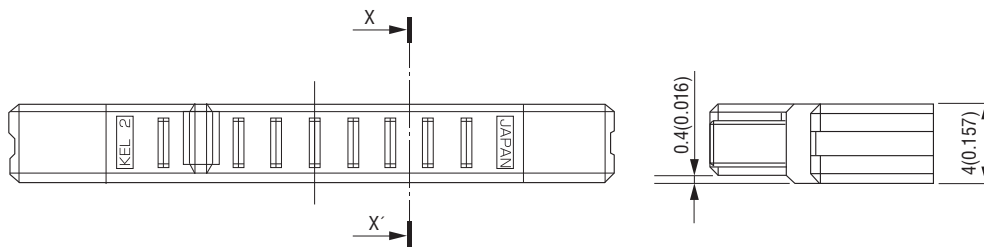
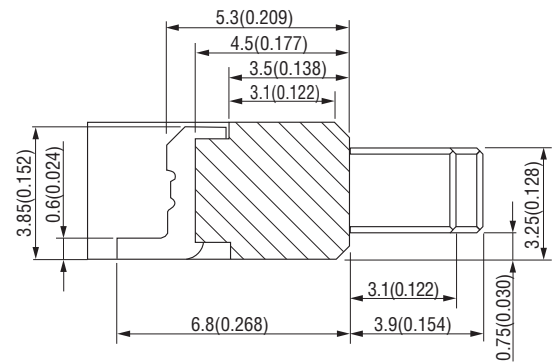
▶ Product Table

No. of contacts	Part Number	Number of packaging
8	GF01-08-12F	500

▶ Printed Circuit Board Layout (Component Side View)



X-X' Cross Section

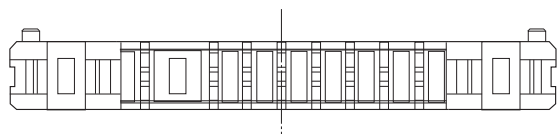
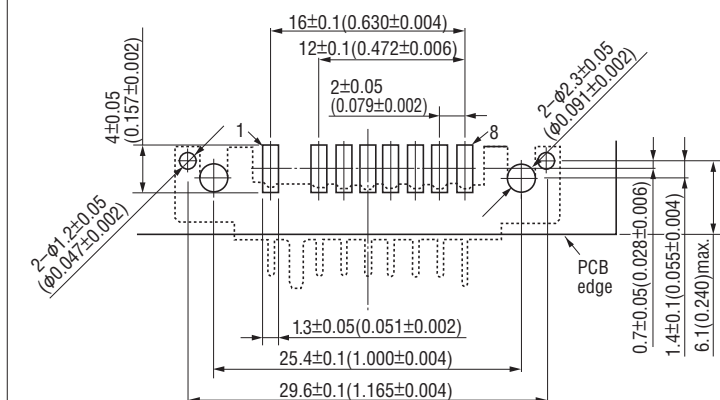
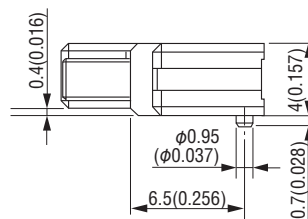
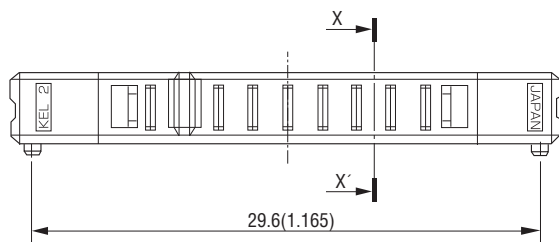
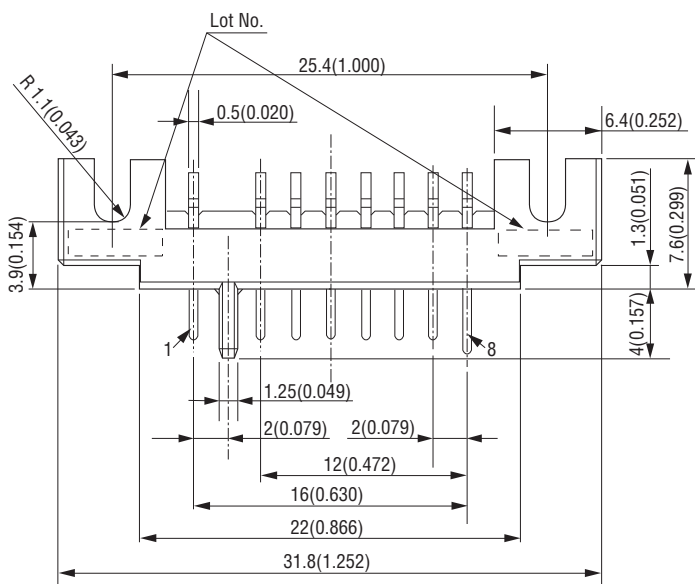
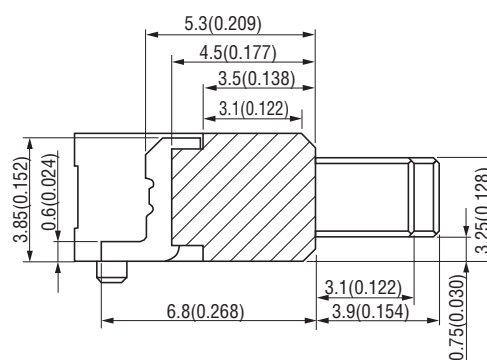


Packaging style

Tray

▶ Product Table

No. of contacts	Part Number	Number of packaging
8	GF02-08-1F	50

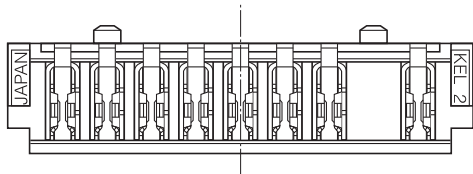
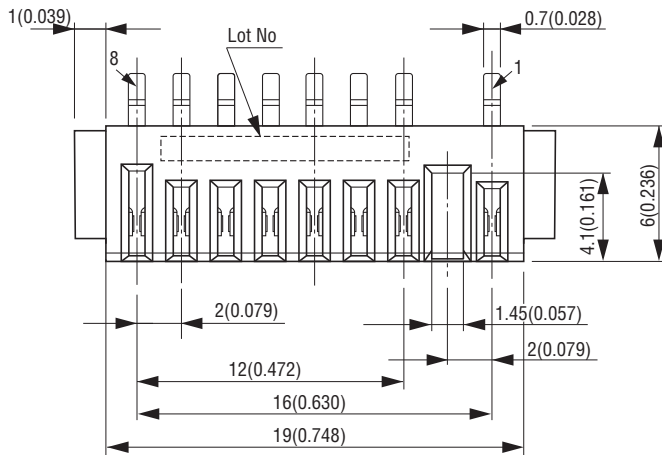
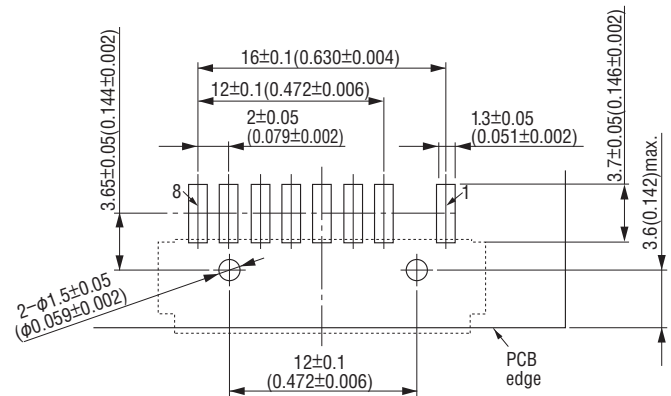
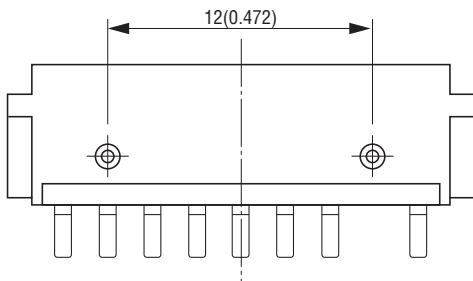
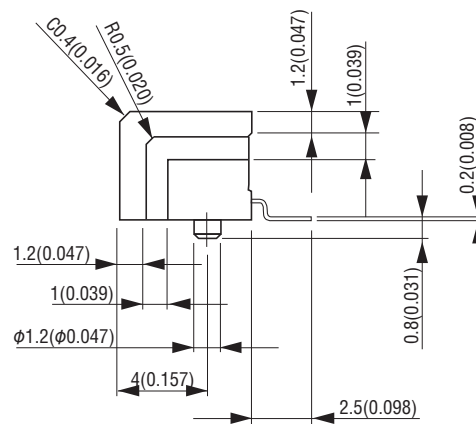
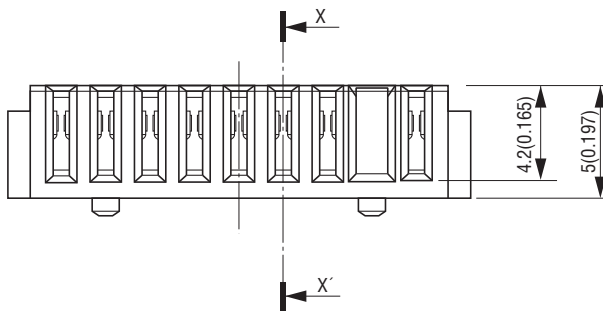
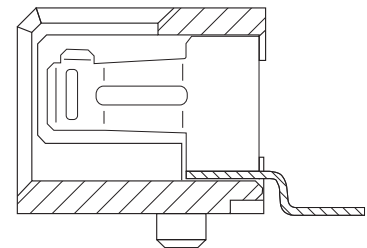
**Printed Circuit Board Layout (Component Side View)**

**X-X' Cross Section**


Packaging style

Embossed tape

**Product Table**

No. of contacts	Part Number	Number of packaging
8	GF02-08-12F	500

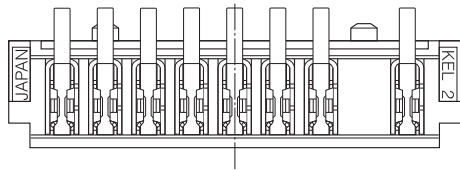
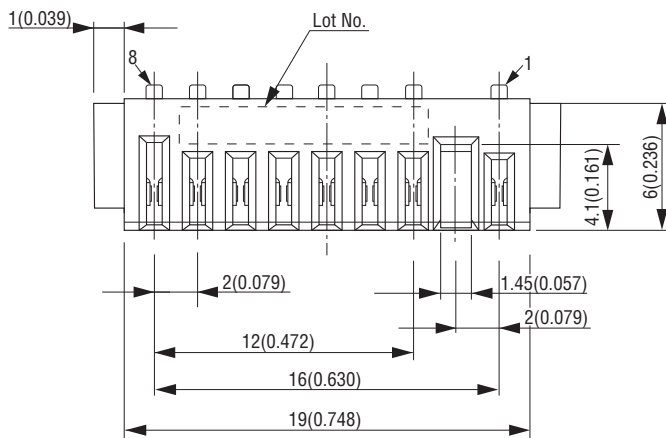
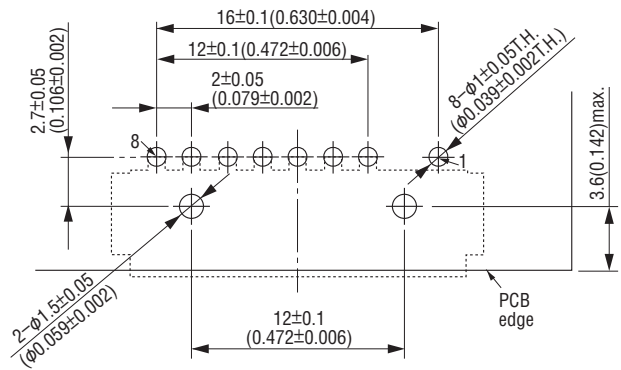
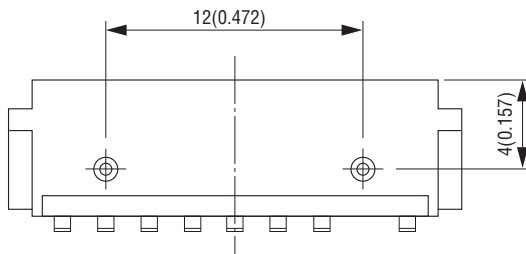
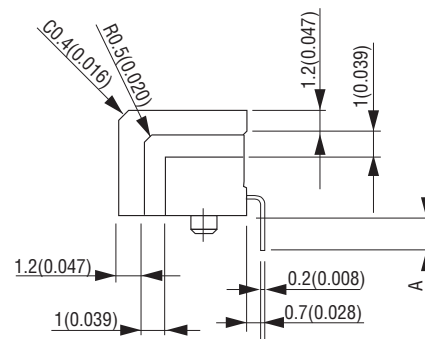
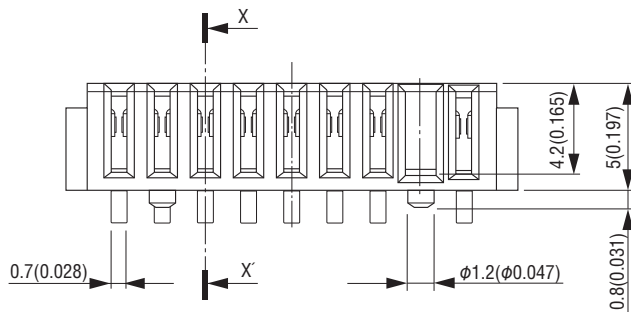
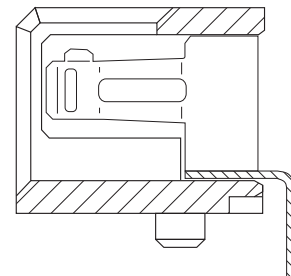

**Printed Circuit Board Layout (Component Side View)**

**X-X' Cross Section**


Packaging style

Tray

**Product Table**

No. of contacts	Part Number	Number of packaging
8	GF11-08-1F	90


**Printed Circuit Board Layout (Component Side View)**

**X-X' Cross Section**


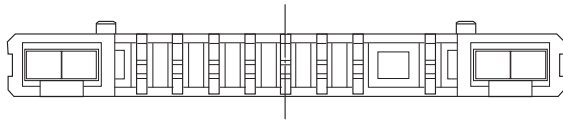
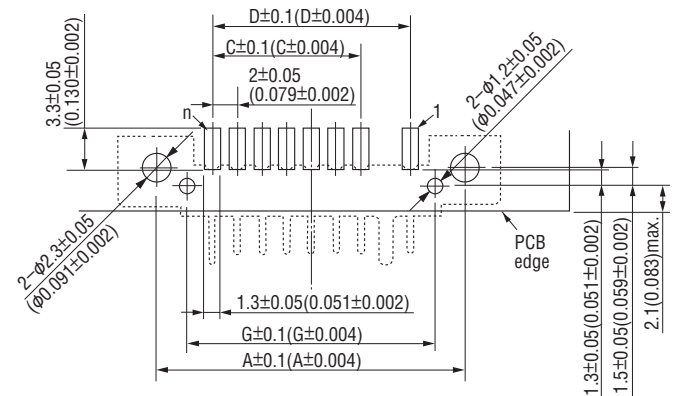
Packaging style

Tray

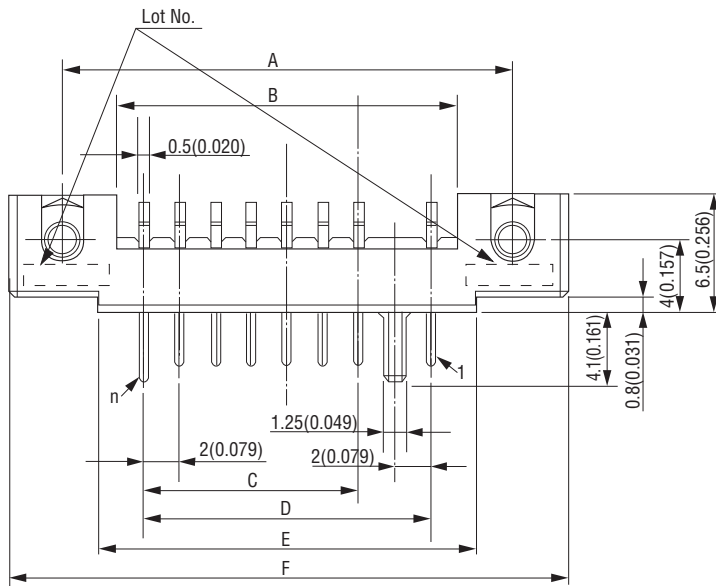
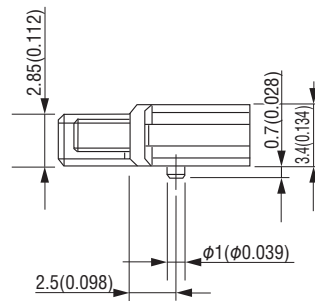
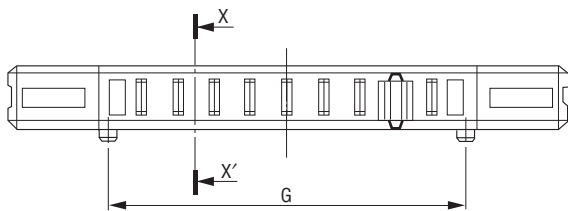
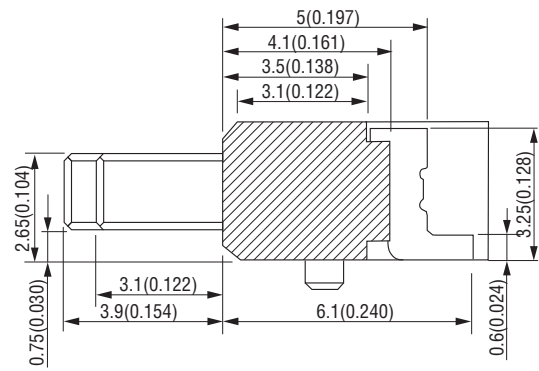
**Product Table / Dimensions**

No. of contacts	Part Number	A	Number of packaging
8	GF12-08-1F	1.5 (0.059)	90
8	GF12-08-2F	2.3 (0.091)	90




**Printed Circuit Board Layout (Component Side View)**


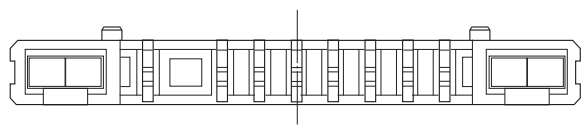
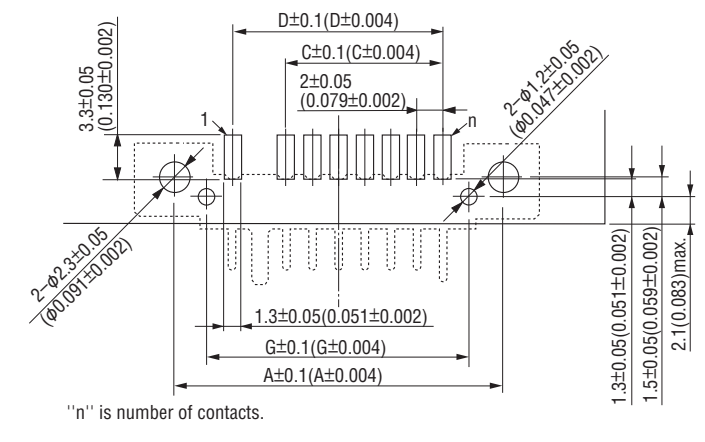
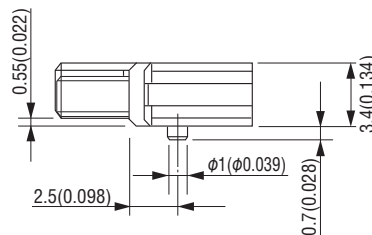
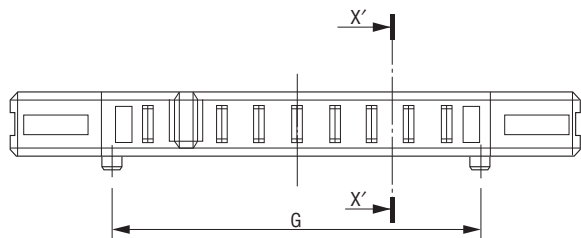
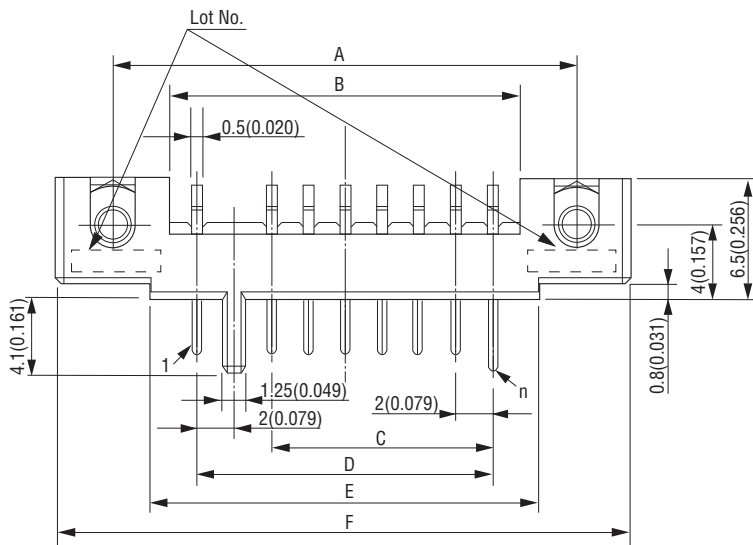
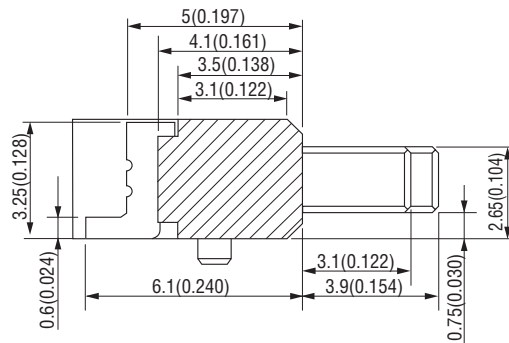
"n" is number of contacts.


**X-X' Cross Section**


Packaging style
Tray

**Product Table / Dimensions**

No. of contacts	Part Number	A	B	C	D	E	F	G	Number of packaging
8	GF21-08-1F	25.0 (0.984)	19.0 (0.748)	12.0 (0.472)	16.0 (0.630)	21.0 (0.827)	31.0 (1.220)	20.0 (0.787)	32
10	GF21-10-1F	29.0 (1.142)	23.0 (0.906)	16.0 (0.630)	20.0 (0.787)	25.0 (0.984)	35.0 (1.378)	24.0 (0.945)	32

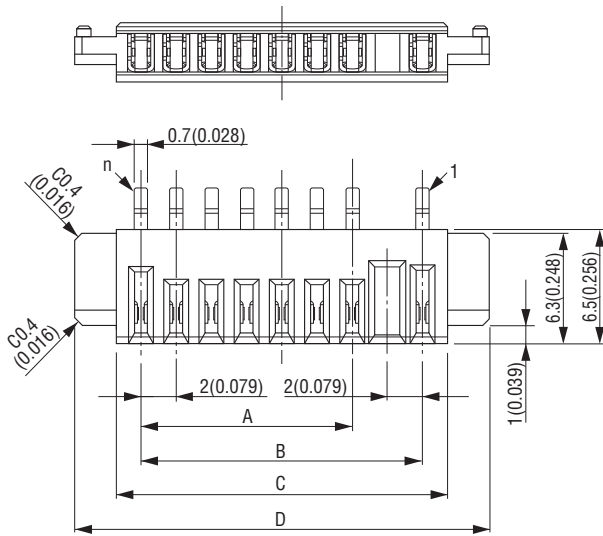
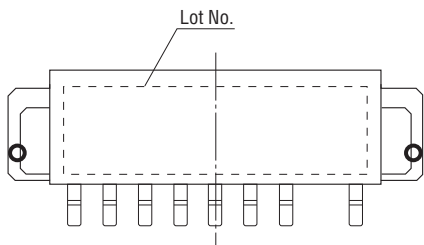
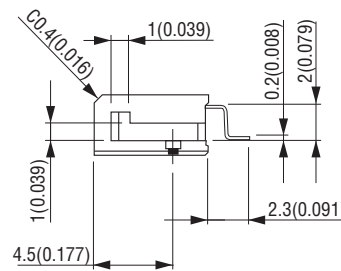
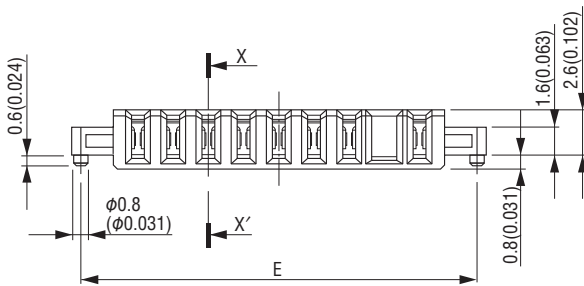
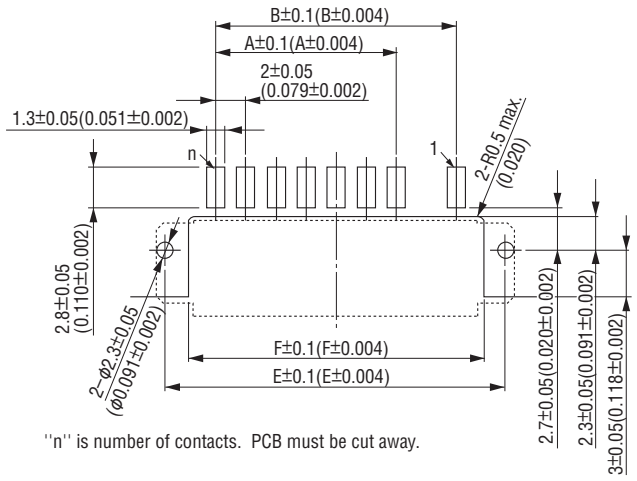
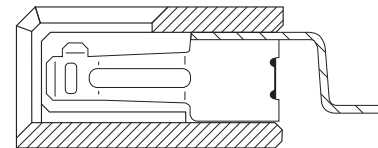
**Printed Circuit Board Layout (Component Side View)**

**X-X' Cross Section**


Packaging style

Tray

**Product Table / Dimensions**

No. of contacts	Part Number	A	B	C	D	E	F	G	Number of packaging
8	GF22-08-1F	25.0 (0.984)	19.0 (0.748)	12.0 (0.472)	16.0 (0.630)	21.0 (0.827)	31.0 (1.220)	20.0 (0.787)	32
10	GF22-10-1F	29.0 (1.142)	23.0 (0.906)	16.0 (0.630)	20.0 (0.787)	25.0 (0.984)	35.0 (1.378)	24.0 (0.945)	32


**Printed Circuit Board Layout (Component Side View)**

**X-X' Cross Section**

**Product Table / Dimensions**

No. of contacts	Part Number	A	B	C	D	E	F	Number of packaging
8	GF31-08-1F	12.0 (0.472)	16.0 (0.630)	18.8 (0.740)	23.5 (0.925)	22.5 (0.886)	19.5 (0.768)	40
10	GF31-10-1F	16.0 (1.630)	20.0 (0.787)	22.8 (0.898)	27.5 (1.083)	26.5 (1.043)	23.5 (0.925)	40

Packaging style

Tray