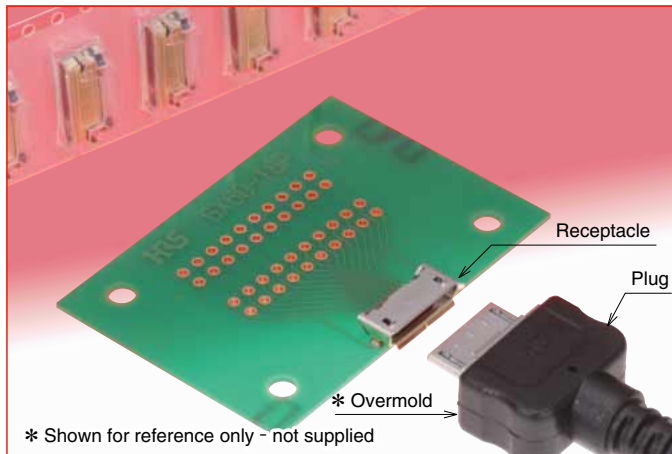
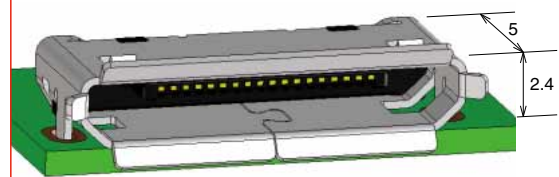


0.4 mm Pitch, Space-saving Interface Connectors

GX Series



Small size



(18 conductors)

Receptacle

GX60-18P

Fig.1

Overview

Developed as input/output connectors for use in portable devices requiring reliable high durability connection.

Features

1. Small size

With a width of 5 mm and 2.4 mm height above the mounting surface the connectors may be used in applications where board and volume space is restricted.(Fig.1)

2. Strong construction

Single piece shell increases the board retention and resists rotational forces encountered in demanding consumer environment

3. High durability

Unique lock latches will maintain high retention force (plug with corresponding receptacle) up to 10,000 cycles, confirming fully mated condition with a distinctive tactile "click" sensation.(Fig.2)

4. ESD protection

Increased distance from the edge of the metal shell to the front of the contacts offers circuit protection from electrostatic discharge.(Fig.3)

5. RoHS compliant

All materials and substances used to produce this product comply with RoHS standards.

Applications

DSC, PDA, notebook computers, mobile phones and other portable devices requiring high durability interface connectors.

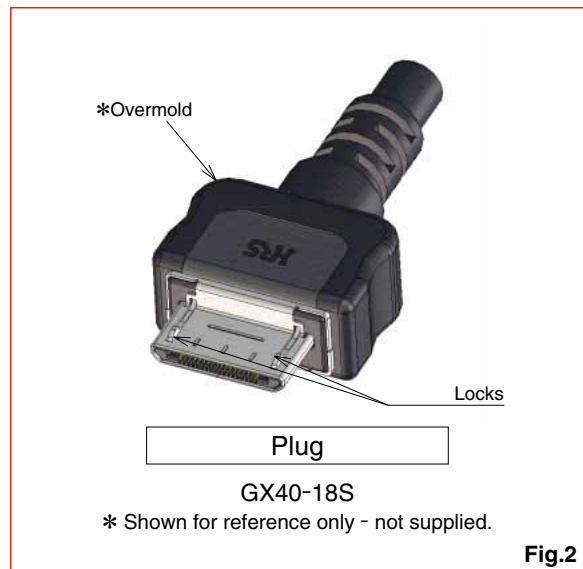


Fig.2

ESD protection



Despite its miniature size the long distance from the metal shell edge to the front of the contacts provides protection from electrostatic discharge.

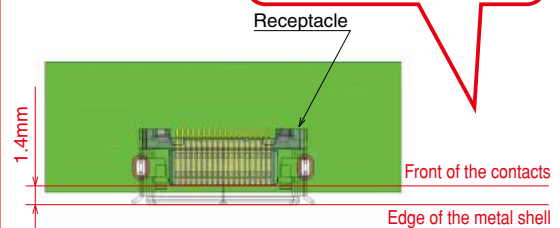


Fig.3

Specifications

Ratings	Current rating	0.5 A (1 A / contact, each contact at the end, 2 contacts only)	Operating temperature range	-30°C to +80°C
	Voltage rating	30 V AC	Storage temperature range	-40°C to +85°C
Item	Specification	Conditions		
1. Contact resistance	60 mΩ max.	100 mA DC		
2. Insulation resistance	100 MΩ min.	100 V DC		
3. Withstanding voltage	No flashover or insulation breakdown	100 V AC / 1 minute		
4. Durability	Contact resistance: 100 mΩ max. No damage cracks or parts dislocation.	10,000 cycles		
5. Shock	No electrical discontinuity of 1 μs or longer. No damage, cracks or parts dislocation.	Acceleration of 490m/s ² , 11 ms duration, sine half-wave, 3 cycles, 3 axis		
6. Vibration	No electrical discontinuity of 1 μs or longer. No damage, cracks or parts dislocation.	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 3 directions for 2 hours		
7. Temperature cycle	Contact resistance: 100 mΩ max. No damage, cracks or parts dislocation.	Temperature:-55°C→+15°C to 35°C→+85°C→+15°C to 35°C Time : 30min.→2min. to 3min.→30min.→2min. to 3 min. 5 cycles		
8. Humidity	Insulation resistance: 100 mΩ min. Insulation resistance: 10 MΩ min.	96 hours at a 40 ±3°C, RH of 90 to 95%, then leave for 1 to 2 hours at normal temperature and humidity		
9. Heat resistance	Contact resistance: 100 mΩ max.	96 ±4 hours at +85 ±2°C		
10. Cold resistance	Contact resistance: 100 mΩ max.	96 ±4 hours at -40 ±3°C		
11. Salt spray test	Contact resistance: 100 mΩ max.	48 hours at a concentration of 5% ±1%, and humidity of 85 ±3°C		

Materials

●Receptacle

Part	Material	Finish	Remarks
Insulator	Synthetic resin	Color: Black	UL94V-0
Contacts	Copper alloy	Gold plated	—————
Shell	Stainless steel	Selective gold plated	—————

●Plug

Part	Material	Finish	Remarks
Insulator	Synthetic resin	Color: Black	UL94V-0
Contacts	Copper alloy	Gold plated	—————
Shells	Stainless steel	Nickel plated	—————
Lock	Stainless steel	—————	—————

Ordering information

●Receptacle

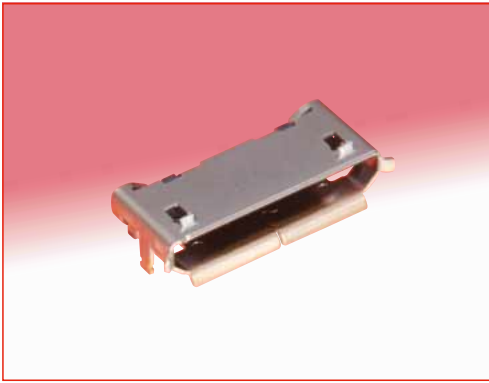
GX60 - 18 P
① ② ③

●Plug

GX40 - 18 S
① ② ③

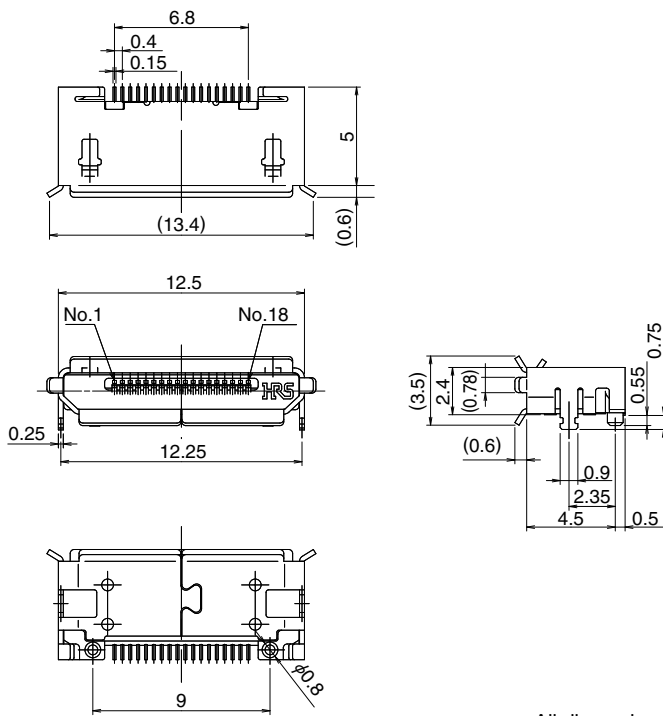
① Series name: GX60 (Receptacles) GX40 (Plugs)
② Number of contacts : 18
③ Contacts type P: Male S: Female

Receptacle



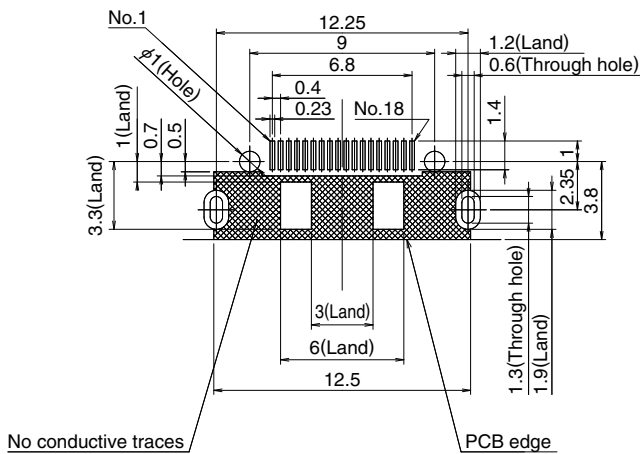
Part No.	HRS No.	Packaging	RoHS
GX60-18P	247-0001-3	1,500 pcs/reel	○

Note : Order by number of reels.



All dimensions: mm

Recommended PCB mounting pattern



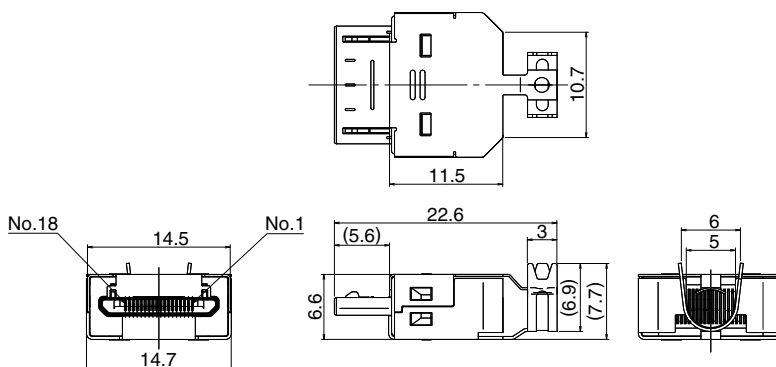
All dimensions: mm

■ Plug



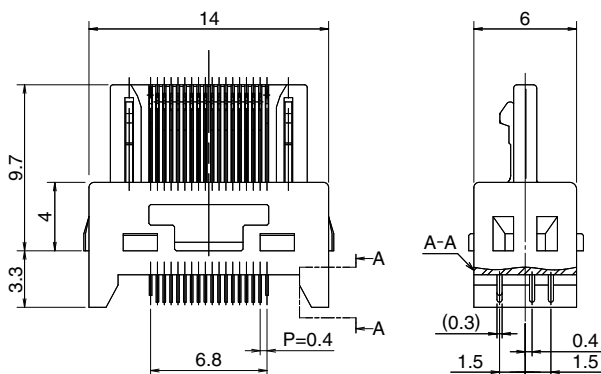
Part No.	HRS No.	Packaging	RoHS
GX40-18S	247-0002-6	1	○

● Assembled components - Supplied non-terminated, without overmold



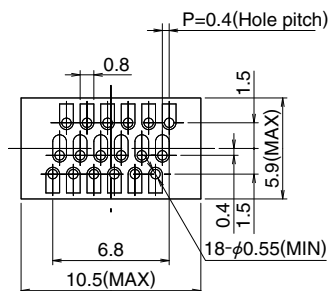
All dimensions: mm

● Assembly (insulator/ contact/lock)

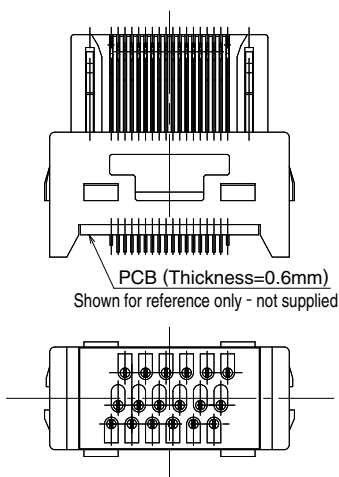


All dimensions: mm

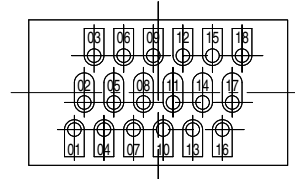
◆ Recommended PCB mounting pattern (Thickness=0.6mm)



◆ PCB installed



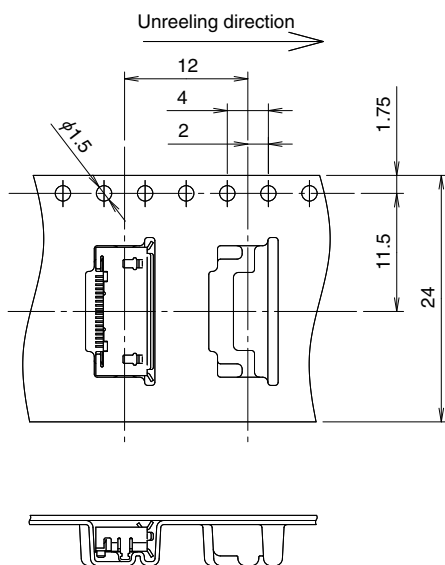
◆ Contact Number Identification



All dimensions: mm

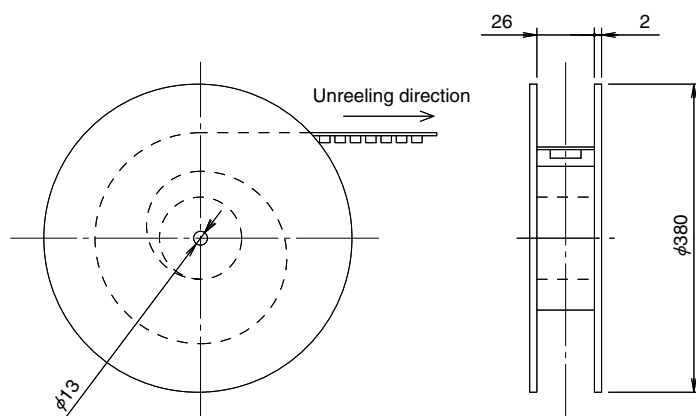
◆ Packaging Specifications

● Embossed carrier tape dimensions

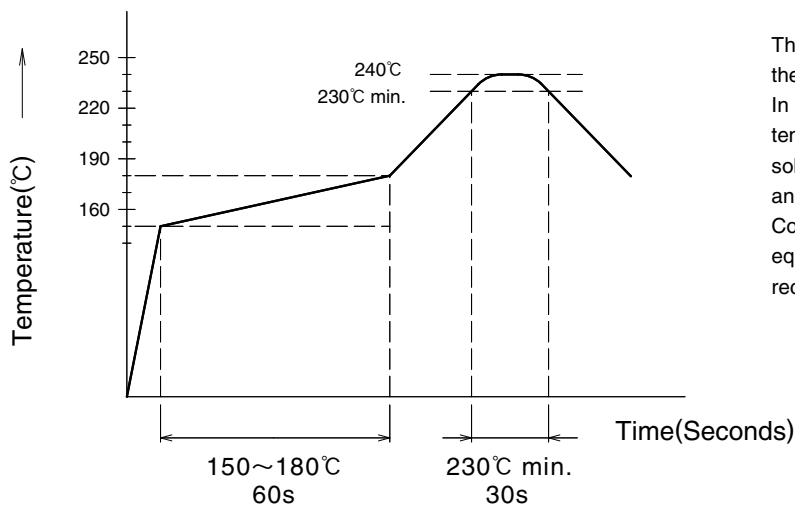


Note : Tape and reel packaging (1,500 pcs/reel).
Order by number of reels.

● Reel Dimensions



◆ Recommended Solder Reflow Profile



The temperature profiles are based on the above conditions. In individual applications the actual temperature may vary, depending on solder paste type, volume / thickness and board size / thickness. Consult your solder paste and equipment manufacturer for specific recommendations.

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