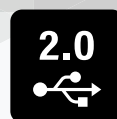


**ZX** Series

# Micro-USB connectors meeting USB 2.0 Standard



USB 2.0



High-Speed



Wide Variation



Product Page  
<https://www.hirose.com/en/product/series/ZX>

Feb. 2026

## Overview

Extremely small highly reliable connectors complying with physical, electrical and environmental requirements of Micro-USB standard (USB 2.0).

Receptacles and plugs are available in a wide variety of mounting and termination styles, allowing their use in various applications.

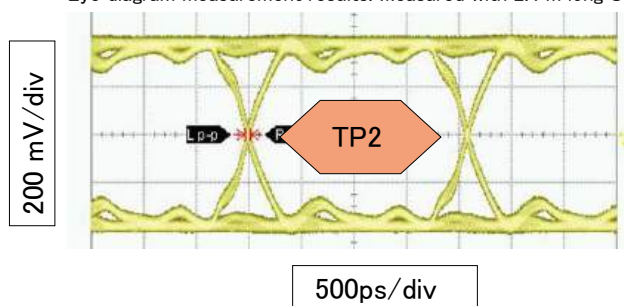
Note: Contact us to ascertain whether a TID number has been acquired for an individual product.

## Features

### 1. High Speed Transmission

Compared with the standard Mini-USB connectors, the size of ZX connectors is reduced by approximately 60% while still allowing a high-speed data transfer of 480 Mbps, specified in USB 2.0. It is ideal for external connections of small devices such as mobile phones, digital cameras, and portable music players.

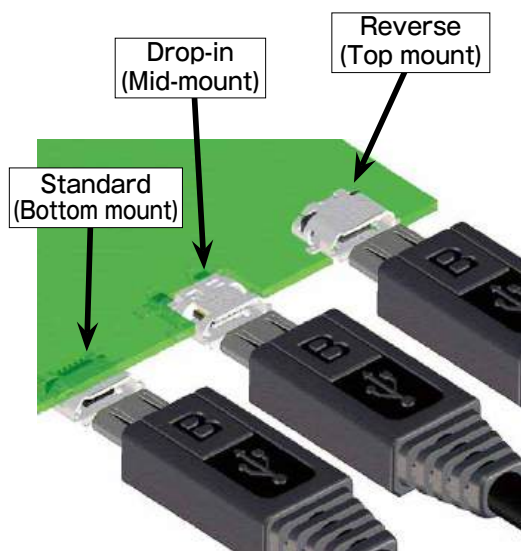
Eye diagram measurement results: Measured with 2.4 m long USB 2.0 cable



USB 2.0 Hi-Speed (480 Mbps)

### 2. Receptacle styles

Two interface configurations: Micro-B and Micro-AB in standard, mid-mount and reverse mounting styles. SMT and through-hole (shell) PC board terminations.



### 3. Plug styles

Corresponding to the receptacle styles, two interface configurations: Micro-A and Micro-B, with direct wire or PCB wire soldering. The minimized size contributes to a freer over-mold design. Additionally, there are a variety of plugs including cradle plugs and charging plugs in addition to standard type for all connection needs.

## 4. Smooth mating and unmating

A smooth mating and unmating operation results in less wear and a longer product life. The unique Hirose active latch mechanism produces a reliable and durable connector.

Even after repeated use, the user will experience a smooth click sensation when mating the connectors.

Note: The statement above only applies when using both plug and receptacles made by Hirose Electric.

## 5. Hirose was the first company to obtain a Micro-USB certification (TID number).

### Product Specifications

|               |             |                  |                     |                               |              |
|---------------|-------------|------------------|---------------------|-------------------------------|--------------|
| Rated Current | Per Contact | Contact No. 1, 5 | Contact No. 2, 3, 4 | Operating Temperature (Note1) | -30 to +85°C |
|               | 1A          | 1.8A             | 0.5A                | Storage Temperature           | -30 to +60°C |
| Rated Voltage | 30V AC      |                  |                     |                               |              |

| Item                          | Specification                                            | Conditions                                        |
|-------------------------------|----------------------------------------------------------|---------------------------------------------------|
| Contact resistance            | 30mΩ Max.                                                | 100mA                                             |
| Withstanding voltage          | No flashover or insulation breakdown                     | 100V AC / 1 minute                                |
| Capacitance                   | 2pF Max.                                                 | Between adjacent contacts at 1,000Hz (AC voltage) |
| Durability                    | Contact resistance: Rise from initial value of 10mΩ Max. | 10,000 cycles                                     |
| Total insertion/removal force | Insertion force: 35N Max., Removal force: 8N Min.        | Mated with corresponding connector                |

Note 1: Includes temperature rise caused by current flow.

Note 2: Information contained in this catalog represents general requirements for this Series. Contact us for the drawings and specifications for a specific part number shown.

### Materials / Finish

#### ● Receptacle

| Part      | Material        | Finish                         | Remarks |
|-----------|-----------------|--------------------------------|---------|
| Insulator | LCP             | Micro-B: Black, Micro-AB: Gray | UL94V-0 |
| Contacts  | Copper alloy    | Selective gold plated          | —       |
| Shell     | Stainless steel | Tin alloy plating              | —       |

#### ● Plug

| Part        | Material        | Finish                         | Remarks |
|-------------|-----------------|--------------------------------|---------|
| Insulator   | LCP             | Micro-B: Black, Micro-AB: Gray | UL94V-0 |
| Contacts    | Copper alloy    | Selective gold plated          | —       |
| Lock spring | Stainless steel | —                              | —       |
| Shell       | Stainless steel | Nickel plated or non-plated    | —       |

Note: The above specifications represent typical values for this series. Actual specifications may vary depending on the product.

# Product Number Structure

Refer to the chart below when determining the product specifications from the product number.  
Please select from the product numbers listed in this catalog when placing orders.

## ■ Receptacle

**ZX 62 RD - B - 5 P # 8**  
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

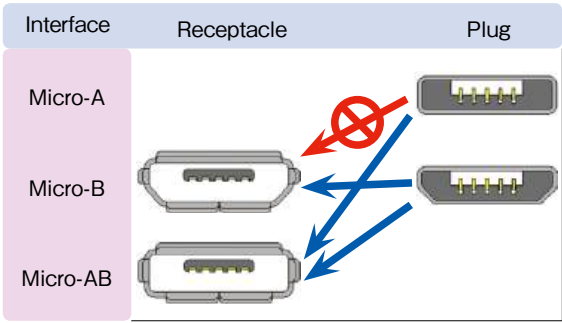
## ■ Plug

**ZX 40 - B - 5 S # - UNIT**  
① ② ④ ⑤ ⑥ ⑦ ⑨

**ZX 40 - B - SLD#**  
① ② ④ ⑨

|                                         |                                                                                                                                                                   |                                         |                                               |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------|
| ① Series name                           | ZX                                                                                                                                                                | ④ Mating side configuration             | A: Micro-A<br>B: Micro-B<br>AB: Micro-AB      |
| ② Termination style                     | 20's: Straight, PCB wire soldering<br>40's: Direct wire soldering<br>60's: Right-angle, SMT<br>80's: Cradle SMT                                                   | ⑤ Number of contacts                    | 5                                             |
|                                         |                                                                                                                                                                   | ⑥ Contact type                          | P: Receptacle- Male<br>S: Plug - Female       |
|                                         |                                                                                                                                                                   | ⑦ Serial No.                            |                                               |
| ③ Board mounting style<br>(Receptacles) | Blank: Standard (Bottom mount)<br>D: Standard (Bottom mount), Shell THT<br>R: Reverse (Top mount)<br>RD: Reverse (Top mount), Shell THT<br>M: Drop-in (Mid-mount) | ⑧ Shell termination style - Receptacles | Blank: SMT<br>8: THT                          |
|                                         |                                                                                                                                                                   | ⑨ Components-plugs                      | UNIT: Plug unit<br>SLD#: Plug shield (Note 1) |

Note 1: Classifiers such as A, B, and C are entered for #.



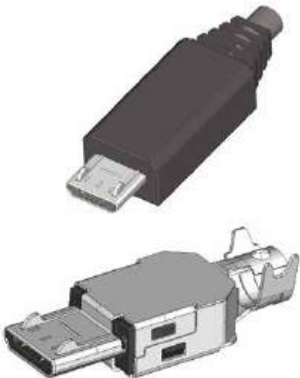
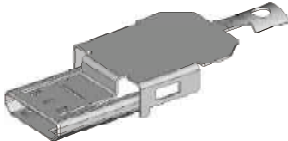
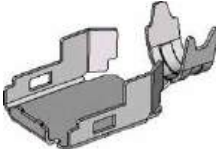
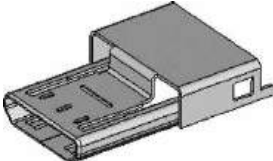
## Configurations

|            | Mating side configuration | Type                               |           | Product name                                                                                                   | 3D Image     |
|------------|---------------------------|------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------|--------------|
| Receptacle | Micro-B                   | Standard                           | SMT       | ZX62-B-5PA(33)                                                                                                 |              |
|            |                           |                                    | SMT + THT | ZX62D-B-5PA8(30)                                                                                               |              |
|            |                           | Reverse                            | SMT       | ZX62R-B-5P(30)                                                                                                 |              |
|            |                           | Drop-in                            | SMT       | ZX62M-B-5P(30)                                                                                                 |              |
|            | Micro-AB                  | Standard                           | SMT       | ZX62-AB-5PA(31)                                                                                                |              |
|            |                           |                                    | SMT + THT | ZX62D-AB-5P8(30)                                                                                               |              |
|            |                           | Reverse                            | SMT + THT | ZX62RD-AB-5P8(30)                                                                                              |              |
|            | Micro-B                   | Direct wire soldering              |           | Assembly (insulator/contacts/lock) : ZX40-B-5S-UNIT(31)<br>Cover-top : ZX40-B-SLDA<br>Cover-bottom : ZX40-SLDB |              |
|            |                           | PCB wire soldering (Straight, THT) |           | Assembly (insulator/contacts/lock) : ZX20-B-5S-UNIT(30)<br>Cover : ZX20-B-SLDC                                 |              |
|            | Micro-A                   | Direct wire soldering              |           | Assembly (insulator/contacts/lock) : ZX40-A-5S-UNIT(30)<br>Cover-top : ZX40-A-SLDA<br>Cover-bottom : ZX40-SLDB |              |
| Cradle     | Micro-B                   | SMT + THT                          |           | ZX80-B-5S(30)                                                                                                  | With lock    |
|            |                           |                                    |           | ZX80-B-5SA(30)                                                                                                 | Without lock |

Note 1: Part numbers in the Plugs section of the above table list the Assembly (insulator/contacts/locks) and the corresponding Shields/Covers.

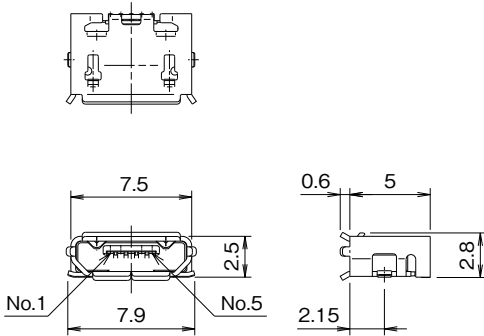
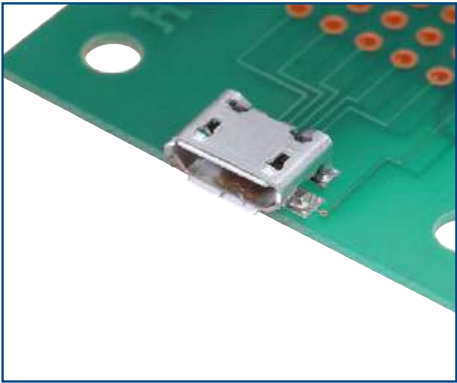
Note 2: Optional Printed Circuit boards for the Plugs are shown for reference only. Not supplied with applicable connectors.

Note 3: The color of the insulators body in the Assembly (insulator/contacts/lock) shown in the 3D Image column above is blue for clarity. Refer to the Materials for correct colors.

| Plug - assembled (not-terminated, without overmold)                                                                                            | Component                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>ZX40 - Direct wire soldering</div><div></div></div> | <div><div><div>ZX40-#-SLDA</div><div>Cover-top</div></div><div><div>ZX40-#-5S-UNIT</div><div>Assembly (insulator/<br/>contacts/lock)<br/>* No PCB required</div></div><div><div>ZX40-SLDB</div><div>Cover-bottom</div></div></div> |
| <div><div>ZX20 - PCB wire soldering</div><div></div></div>   | <div><div><div>ZX20-#-SLDC</div><div>Cover</div></div><div><div>ZX20-#-5S-UNIT</div><div>Assembly<br/>(insulator/contacts/lock)<br/>* Vertical through hole PCB<br/>termination</div></div></div>                                                                                                                   |

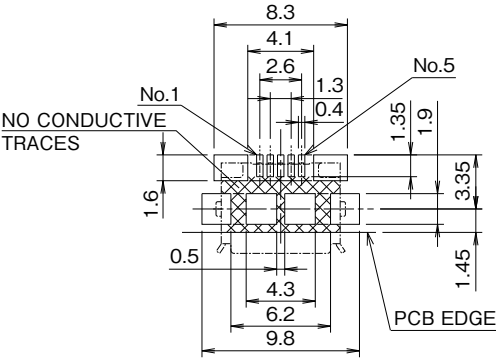
Receptacle, Micro-B

● Standard Type

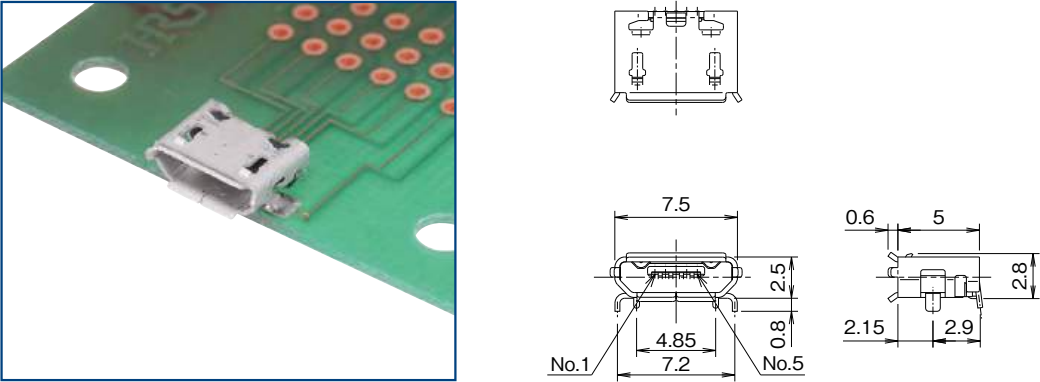


| Part No.       | HRS No.          |
|----------------|------------------|
| ZX62-B-5PA(33) | CL0242-0033-8-33 |

■ Recommended PCB mounting pattern(from attachment side)

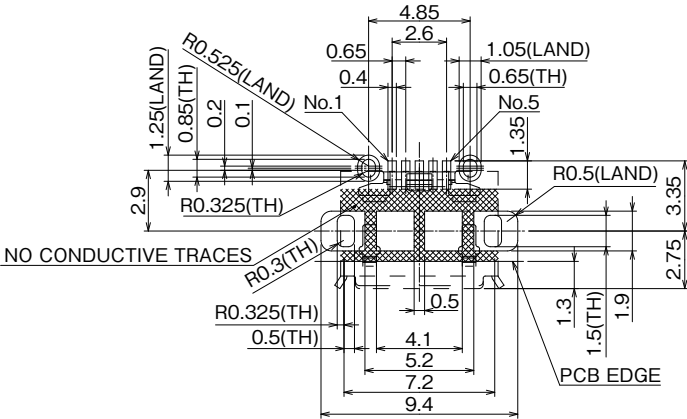


● Standard Shell THT Type



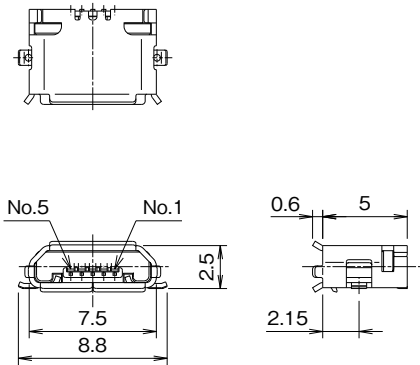
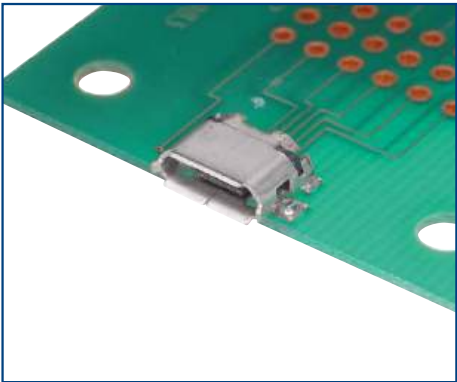
| Part No.         | HRS No.          |
|------------------|------------------|
| ZX62D-B-5PA8(30) | CL0242-0056-3-30 |

■ Recommended PCB mounting pattern(from attachment side)



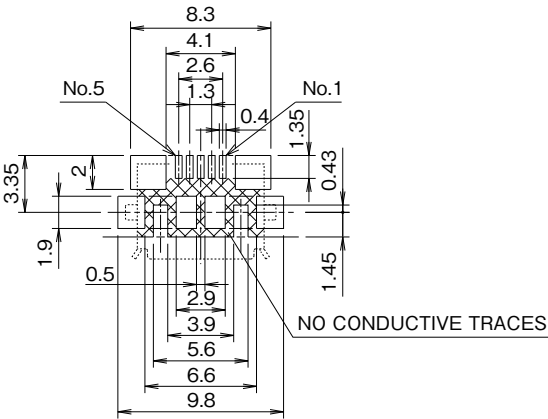
Receptacle, Micro-B

● Reverse Type

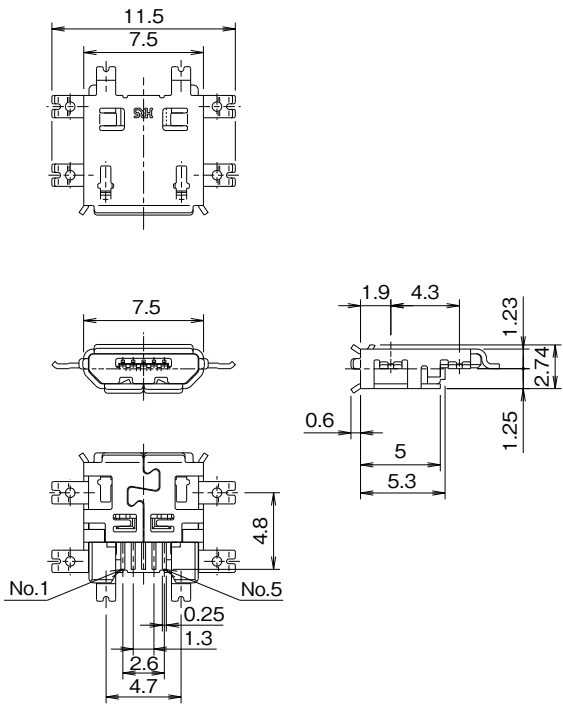
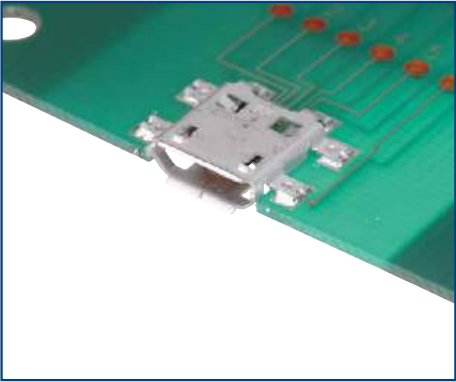


| Part No.       | HRS No.          |
|----------------|------------------|
| ZX62R-B-5P(30) | CL0242-0028-8-30 |

■ Recommended PCB mounting pattern(from attachment side)

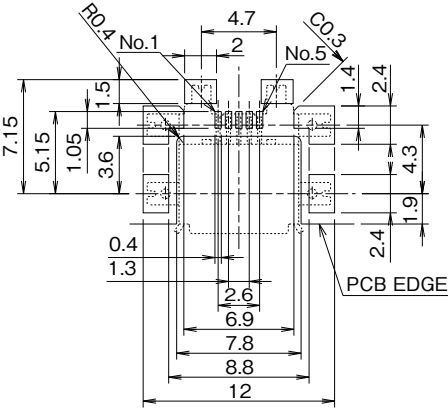


● Drop-in Type



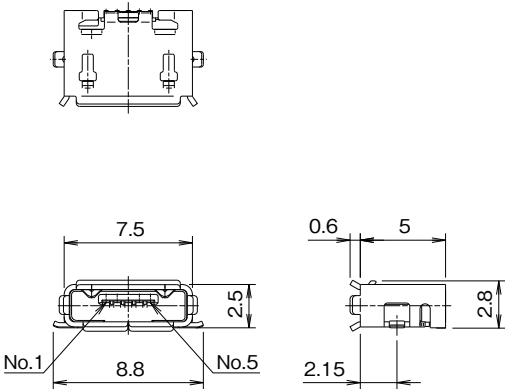
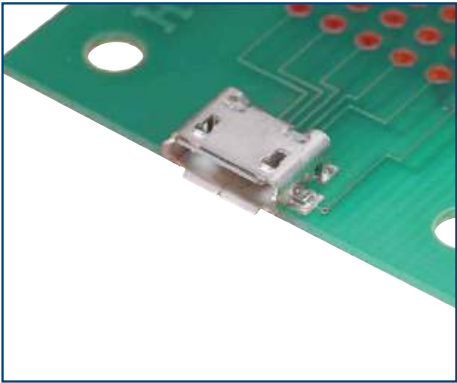
| Part No.       | HRS No.          |
|----------------|------------------|
| ZX62M-B-5P(30) | CL0242-0024-7-30 |

■ Recommended PCB mounting pattern(from attachment side)



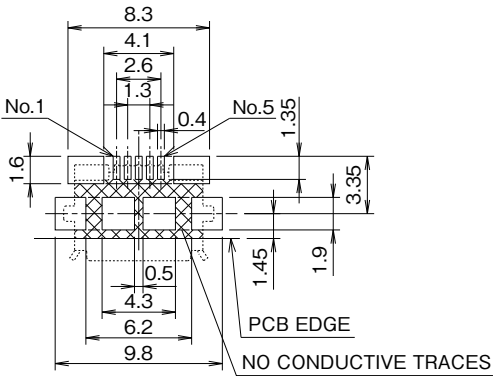
Receptacle, Micro-AB

● Standard Type

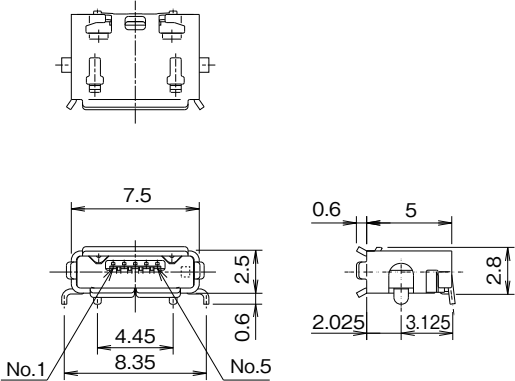
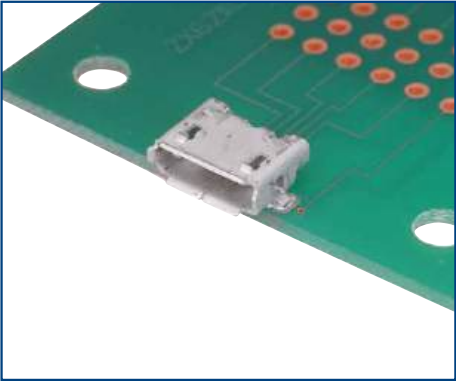


| Part No.        | HRS No.          |
|-----------------|------------------|
| ZX62-AB-5PA(31) | CL0242-0045-7-31 |

■ Recommended PCB mounting pattern(from attachment side)

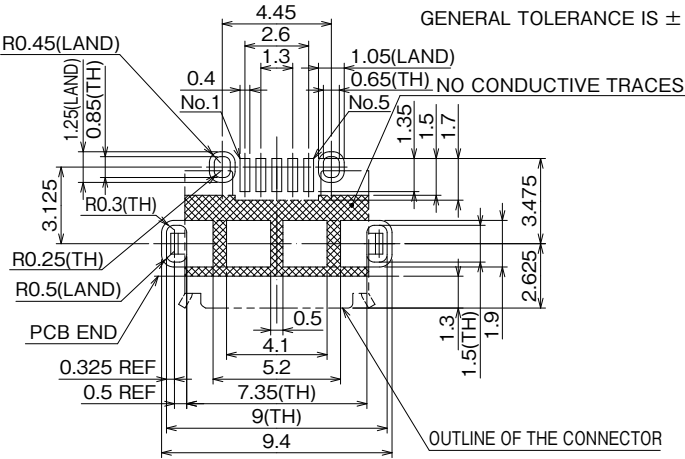


● Standard Shell THT Type



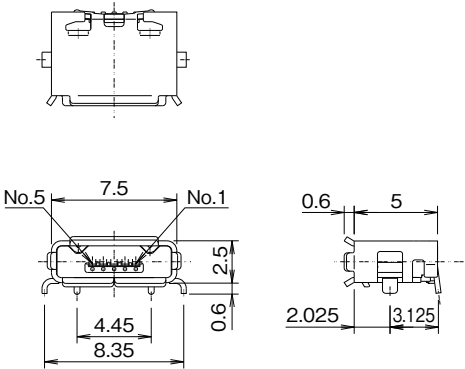
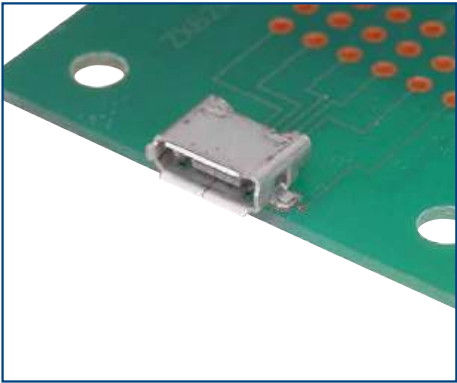
| Part No.         | HRS No.          |
|------------------|------------------|
| ZX62D-AB-5P8(30) | CL0242-0027-5-30 |

■ Recommended PCB mounting pattern(from attachment side)



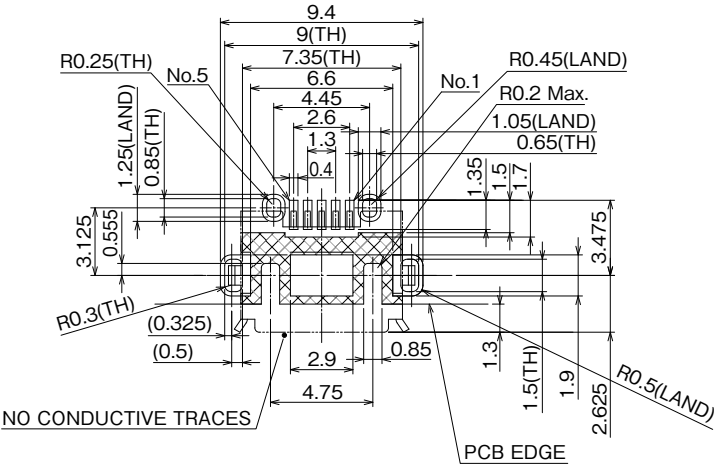
Receptacle, Micro-AB

● Reverse Shell THT Type



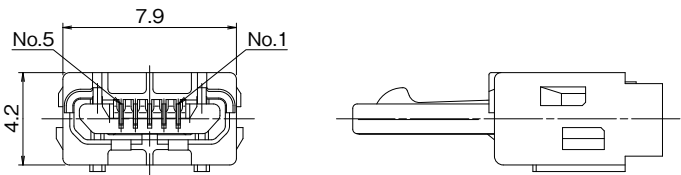
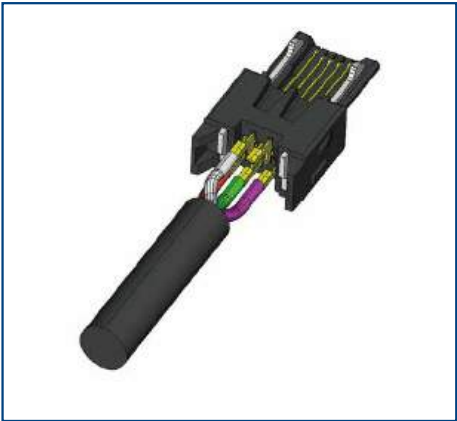
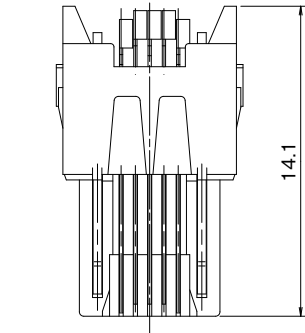
| Part No.          | HRS No.          |
|-------------------|------------------|
| ZX62RD-AB-5P8(30) | CL0242-0025-0-30 |

■ Recommended PCB mounting pattern(from attachment side)



Plug, Micro-B

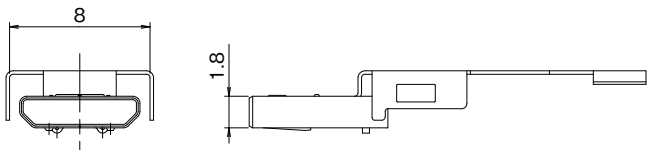
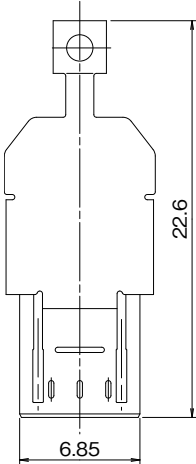
● Assembly unit (insulator, contacts, lock) - For direct wire soldering



| Part No.           | HRS No.          |
|--------------------|------------------|
| ZX40-B-5S-UNIT(31) | CL0242-0002-4-31 |

Note: Contact HRS for Cable Termination Procedure Manual.

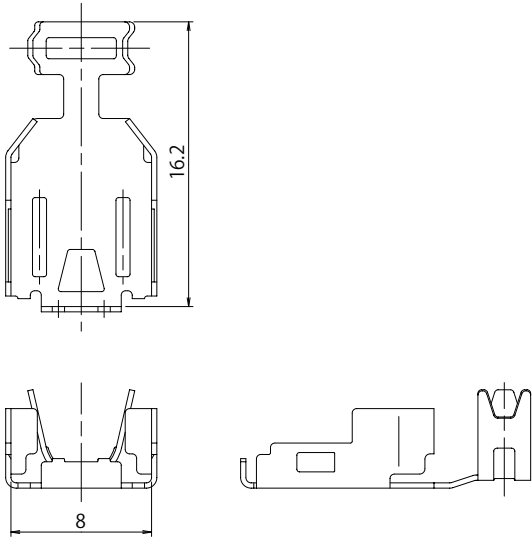
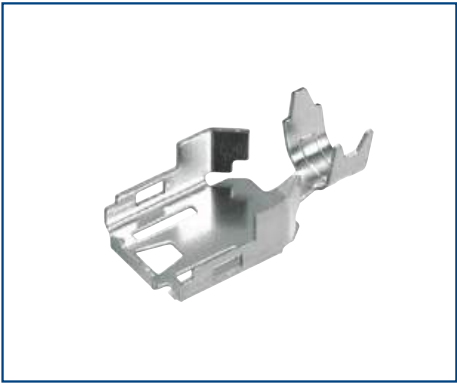
● Cover-top, Shield Plate A - For direct wire soldering



| Part No.    | HRS No.          |
|-------------|------------------|
| ZX40-B-SLDA | CL0242-0003-7-00 |

Compatible with both Micro-A and Micro-B plugs

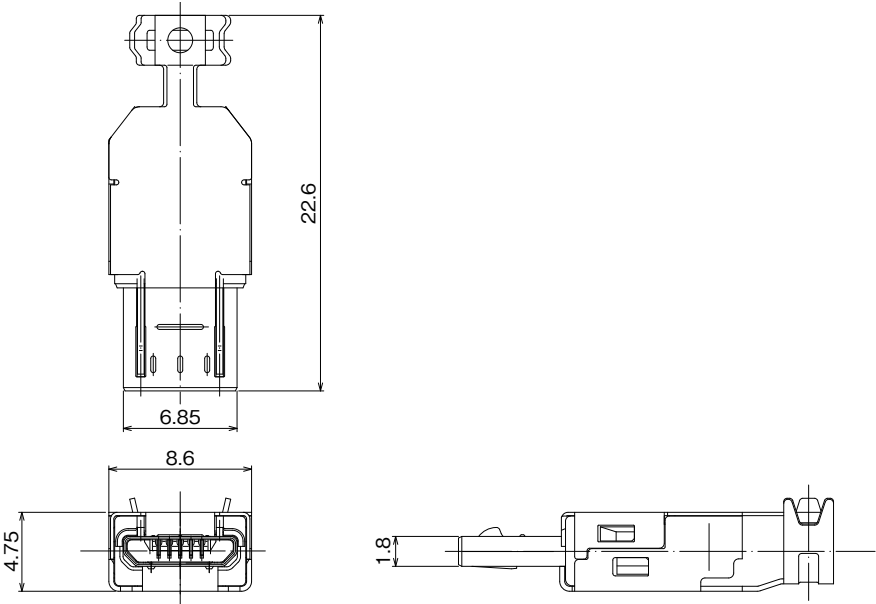
● Cover-bottom, Shield Plate B - For direct wire soldering



ZX40-SLDB

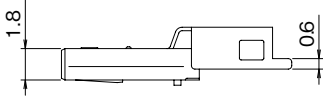
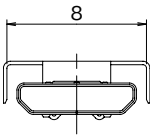
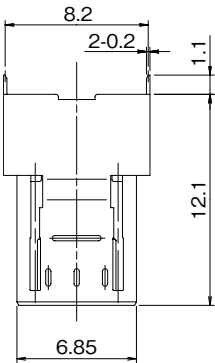
| Part No.  | HRS No.          | Cable dia. |
|-----------|------------------|------------|
| ZX40-SLDB | CL0242-0004-0-00 | φ 3.8      |

● Assembled



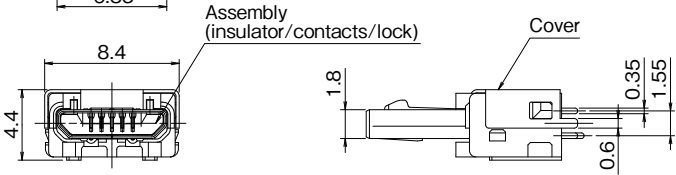
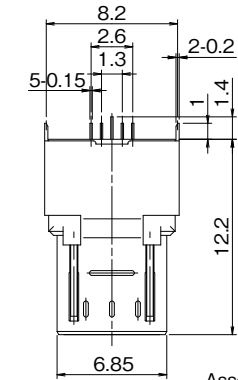


● Cover, Shield Plate C – For PCB wire soldering



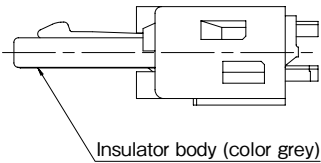
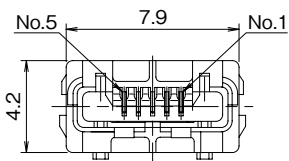
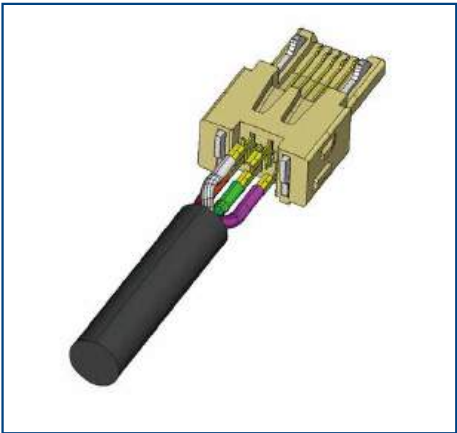
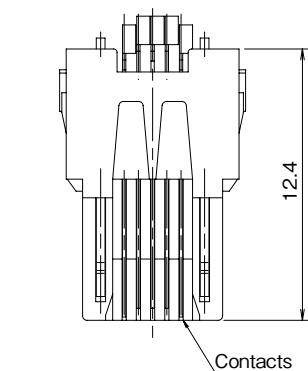
| Part No.    | HRS No.          |
|-------------|------------------|
| ZX20-B-SLDC | CL0242-0022-1-00 |

● Assembled



Plug, Micro-A

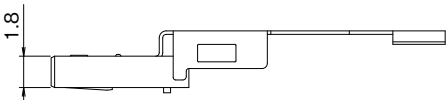
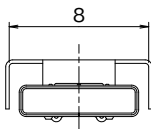
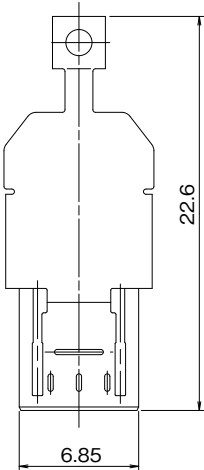
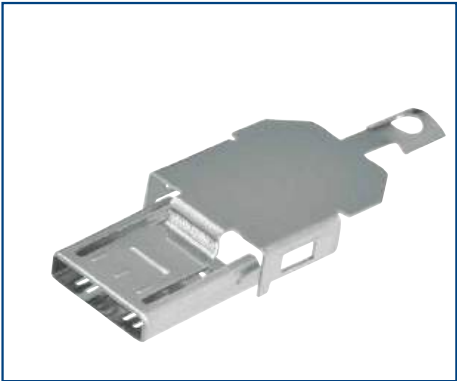
- Assembly unit (insulator, contacts, lock) – For direct wire soldering



| Part No.           | HRS No.          |
|--------------------|------------------|
| ZX40-A-5S-UNIT(30) | CL0242-0010-2-30 |

Note: Contact HRS for Cable Termination Procedure Manual.

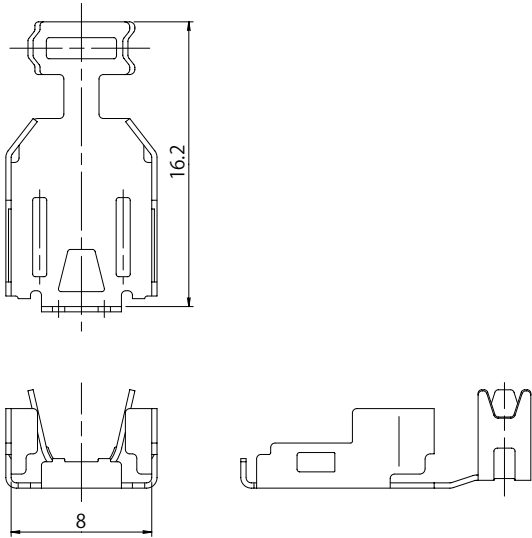
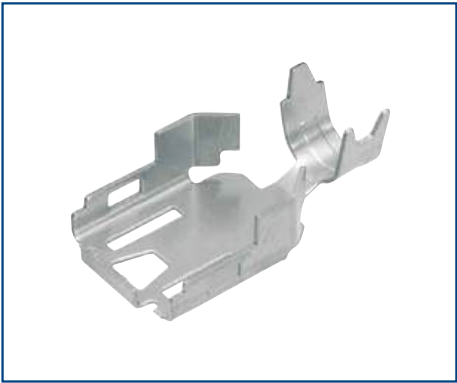
- Cover-top, Shield Plate A – For direct wire soldering



| Part No.    | HRS No.          |
|-------------|------------------|
| ZX40-A-SLDA | CL0242-0011-5-00 |

Compatible with both Micro-A and Micro-B plugs

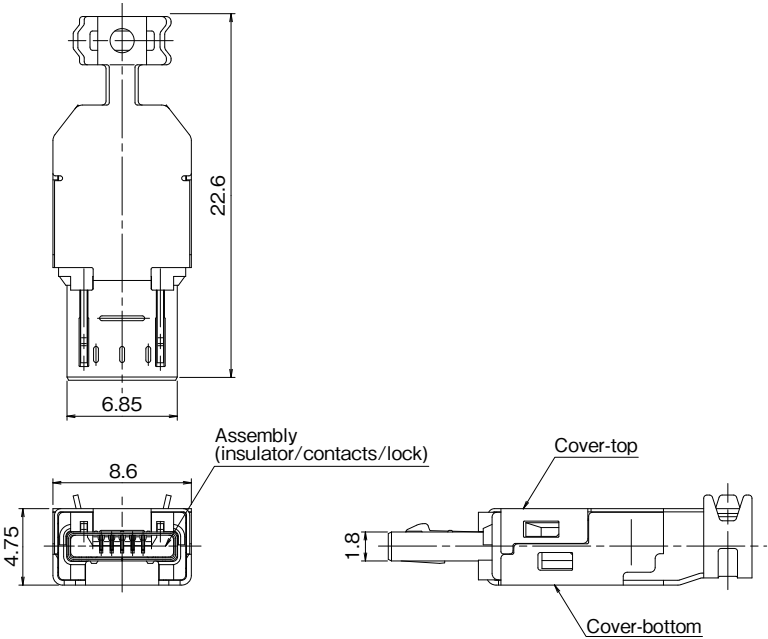
● Cover-bottom, Shield Plate B – For direct wire soldering



ZX40-SLDB

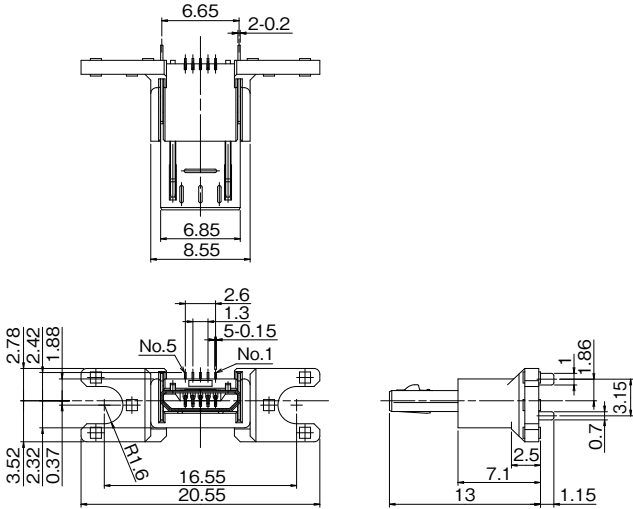
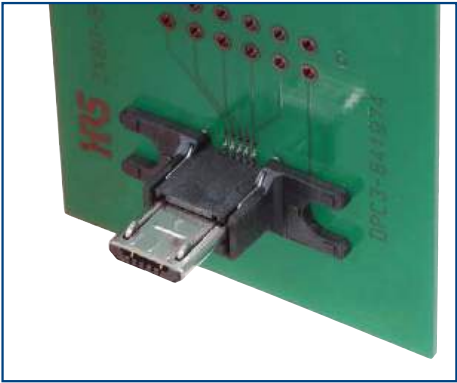
| Part No.  | HRS No.          | Cable dia. |
|-----------|------------------|------------|
| ZX40-SLDB | CL0242-0004-0-00 | φ 3.8      |

● Assembled



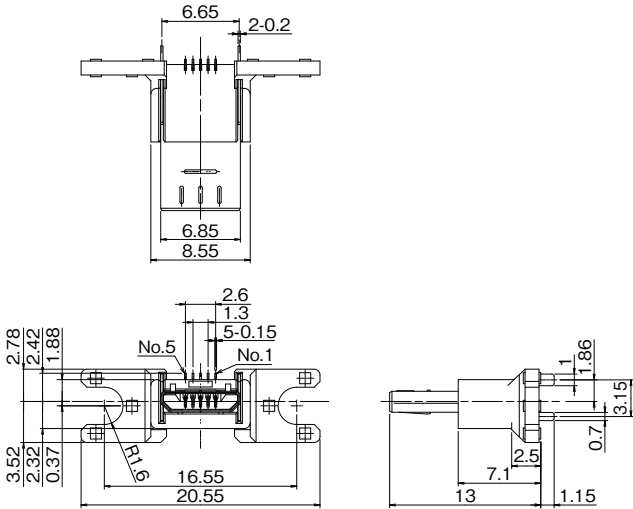
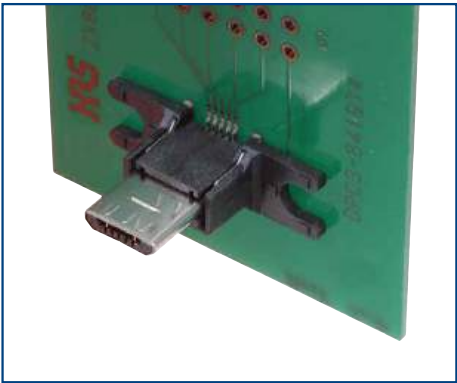
Vertical Plug, Micro-B

● Cradle Type With Lock



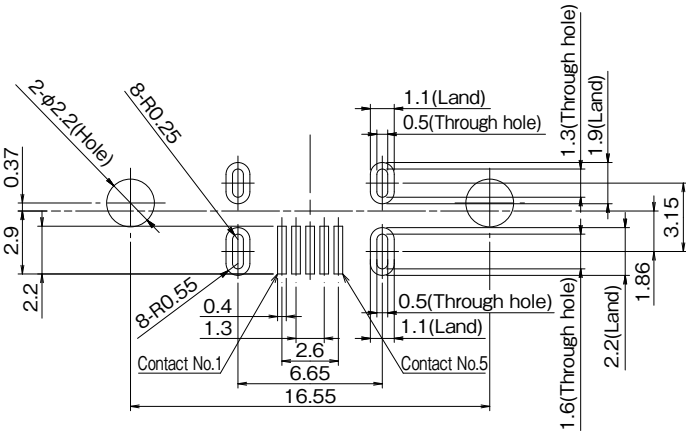
| Part No.      | HRS No.          |
|---------------|------------------|
| ZX80-B-5S(30) | CL0242-0017-1-30 |

● Cradle Type Without Lock



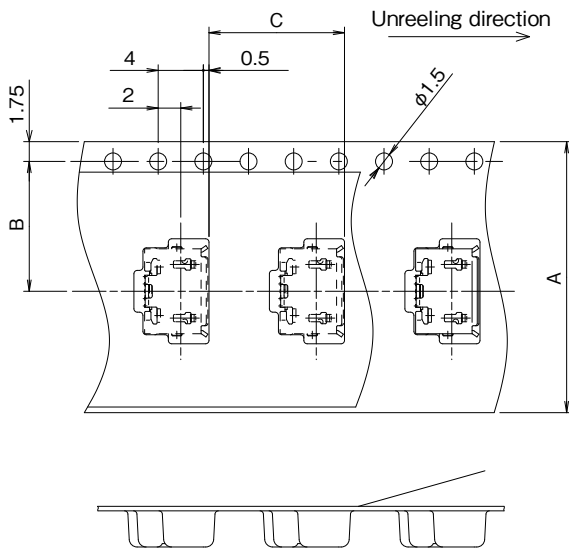
| Part No.       | HRS No.          |
|----------------|------------------|
| ZX80-B-5SA(30) | CL0242-0019-7-30 |

■ PCB mounting pattern(from attachment side)

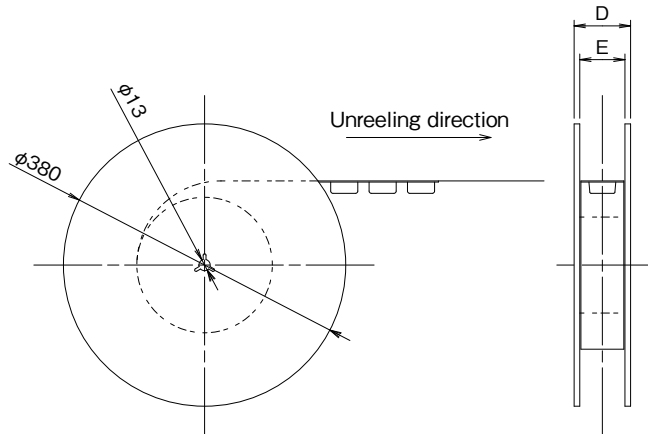


## Receptacle Packaging Specifications(JIS C 0806-3)

### ● Embossed carrier tape dimensions



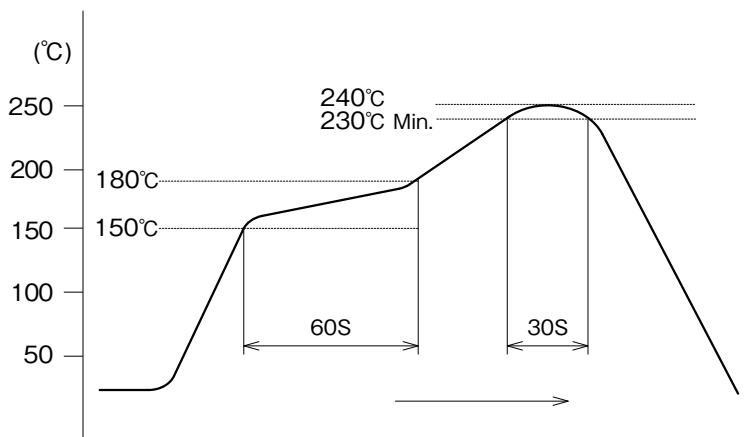
### ● Reel Dimensions



| Part No.        | A dimension | B dimension | C dimension | D dimension | E dimension |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| ZX62-B-5PA(33)  | 24          | 11.5        | 8           | 30.4        | 24.4        |
| ZX62-AB-5PA(31) | 24          | 11.5        | 8           | 30.4        | 24.4        |
| ZX62M-B-5P(30)  | 24          | 11.5        | 16          | 30.4        | 24.4        |
| Other           | 16          | 7.5         | 12          | 22.4        | 16.4        |

## Recommended Temperature Profile - Receptacles

### ● Using lead-free solder paste



The temperature profile is based on the left conditions. In individual applications the actual temperature may vary, depending on solder paste type, volume/thickness and board size/thickness. Contact your solder paste and equipment manufacturer for specific recommendations.

Note 1: Up to 2 cycles of Reflow soldering are possible under the same conditions, provided that there is a return to normal temperature between the first and second cycle.

Note 2: The temperature profile indicates the board surface temperature at the point of contacts with the connector terminals.

## Precautions

- Exercise care when handling the connectors. Do not subject them to excessive external forces when mating/un-mating.
- Mate and un-mate as intended, holding by the overmolded body, in the correct direction. Do not un-mate by pulling on the cable. Pull body of plug out invetlcal direction when unmating.
- Some tooling marks may be visible on the surfaces of receptacle (shell/ cover). No form/fit or function is affected.
- Appearance of the surface finishes on the receptacles may vary between production runs. No affect on form, fit or function.

## While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.

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