

**NEW**

# Micro-USB 3.0 Connector

ZX360 Series



(Note) Please contact us for TID acquisition status of each product.

## General

The ZX360 Series is a Micro-USB connector that is compliant with the current Micro USB 3.0 specifications and supports up to 5 Gbps high speed data transfer. As a next-generation interface, this series functions well for various small sized devices.

## Features

### 1. Supports high-speed USB 3.0 transmissions

In comparison to the Micro USB 2.0 connectors, the maximum transfer speed has drastically increased from 480 Mbps to 5 Gbps, delivering 10 times the transfer speed.

### 2. Fully supports Micro USB 2.0

Supports the plug used in Micro USB 2.0

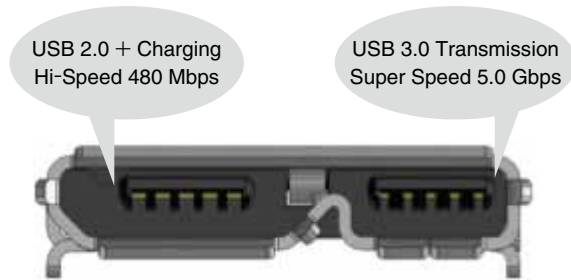
### 3. Design provides a smoother mating cycle and a longer life

With the extensive data and experience compiled from the previous Micro USB 2.0 ZX series connectors, the unique new active latch (lock) mechanism delivers a clear tactile click that does not diminish after repeated use.

### 4. Micro-USB 3.0 certification (TID number) acquired

### 5. RoHS compliant, halogen-free product\*

\* ZX360 series is halogen-free product (Maximum content of Br, Cl and Br+Cl total are 900 ppm, 900 ppm and 1500 ppm, respectively.)



**Hi-Speed  
USB2.0**



In case of USB 2.0 transmission + charging, conventional Micro USB 2.0 plug is usable.

**Super Speed  
USB3.0**



USB 3.0 plug is required in case of USB 3.0 transmission.

## ■ Product Specifications

Ratings	Rated Current	1 A/contact: When all contacts (No. 1 to 10) are for signal 1.8 A/contact: for power contact (No. 1 & 5) and 0.5 A/contact for others (No. 2 to 4, 6 to 10).	Rated Voltage	30V AC
			Operating Temp. Range	-30°C to +85°C (Note 1)
			Storage Temp. Range	-30°C ~ +60°C

Items	Specifications	Conditions
1. Contact resistance	Maximum of 30 mΩ	Measured at 100 mA
2. Withstand voltage	No flashover or breakdown	100V AC / 1 min
3. Capacitance	2 pF or less	Between adjacent contacts with 1,000 Hz alternative voltage
4. Durability	Contact resistance: Increase by 10 mΩ or less from the initial value	10,000 mating cycles
5. Overall insertion/extraction forces	Insertion: 35 N MAX. Extraction: 10N MIN.(Initial) 8N MIN.(After durability cycles)	Measured with applicable connector

(Note 1) Includes the temperature rise when parts are energized

(Note 2) The above specifications are representative of this series.

Hirose cannot warranty the performance when mated with other vendors' products.

Hirose does not warranty problems that arise from the use of unapproved tools on Hirose products.

## ■ Materials

### ● Receptacle

Parts	Materials	Color/Treatment
Insulator	LCP	Black/UL94V-0
Contact	Copper alloy	Gold plating (nickel under plating) or Nickel-palladium plating
Shell	Stainless steel	Tin plating

### ● Plug

Parts	Materials	Color/Treatment
Insulator	LCP	Black/UL94V-0
Contact	Copper alloy	Gold plating (nickel under plating) or Nickel-palladium plating
Lock spring	Stainless steel	-
Shield	Stainless steel	Nickel plating

\*This is a halogen-free product.

(Maximum content of Br, Cl and Br+Cl total are 900 ppm, 900 ppm and 1500 ppm, respectively.)

(Note) The above data is representative of this series. Data may vary according to specifications.

## ■ Product Number Structure

### ● Receptacle

**ZX 3 60 D - B - 10 P**  
 ① ② ③ ④ ⑤ ⑥ ⑦

### ● Plug

**ZX 3 60 - B - 10 S - UNIT**  
 ① ② ③ ⑤ ⑥ ⑦ ⑧

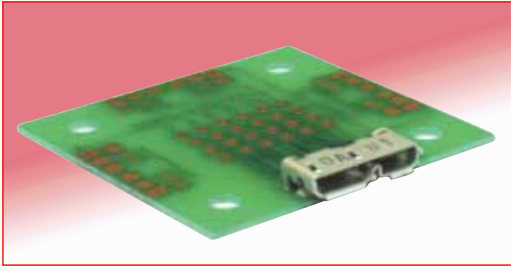
**ZX 3 60 - B - SLD\***  
 ① ② ③ ⑤ ⑧

① Series name	ZX	
② Supported transmission	None 3	USB 2.0 compliant USB 3.0 compliant
③ Wiring style	60	Right angle SMT
④ Mounting form of receptacle shell	D	Dip style
⑤ Mating key shape	B	Micro-B
⑥ No. of contacts	10 contacts	
⑦ Contact type	P S	Receptacle (male contacts) Plug connector (female contacts)
⑧ Plug components	UNIT SLD*	Plug unit Plug shield (Note 1)

(Note 1) \* contains type symbol such as A, B or number.

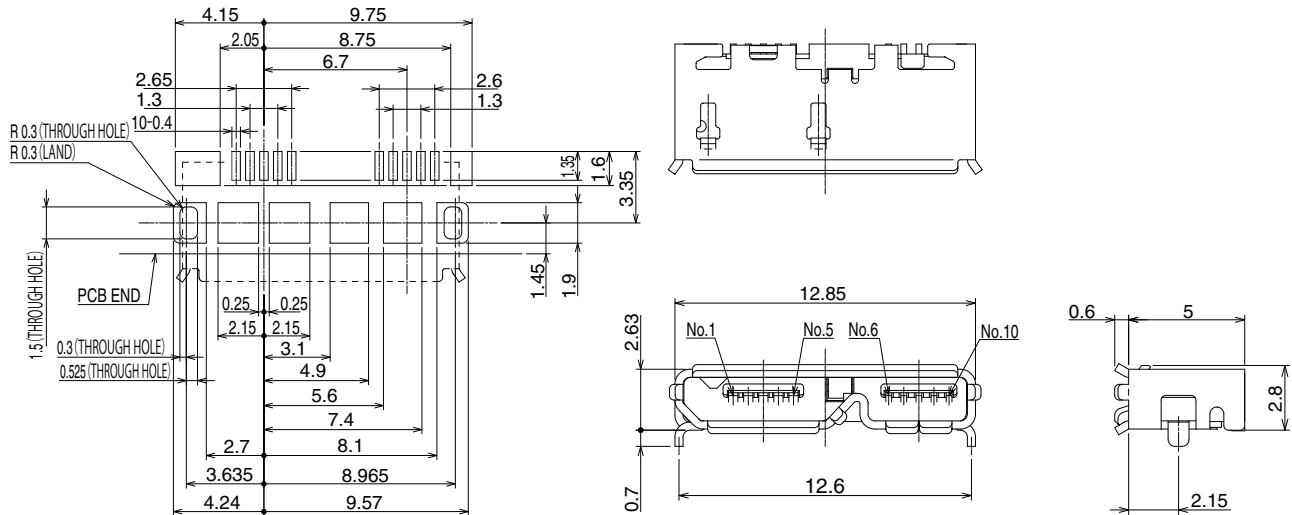
## ■ Receptacle Micro-B

### ● Standard type



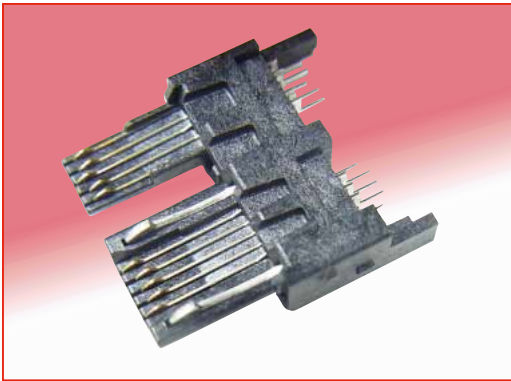
Part No.	HRS No.	Quantity
ZX360D-B-10P	CL242-0500-1-00	3,000 pieces per reel

### ◆ Recommended PCB layout (component side)



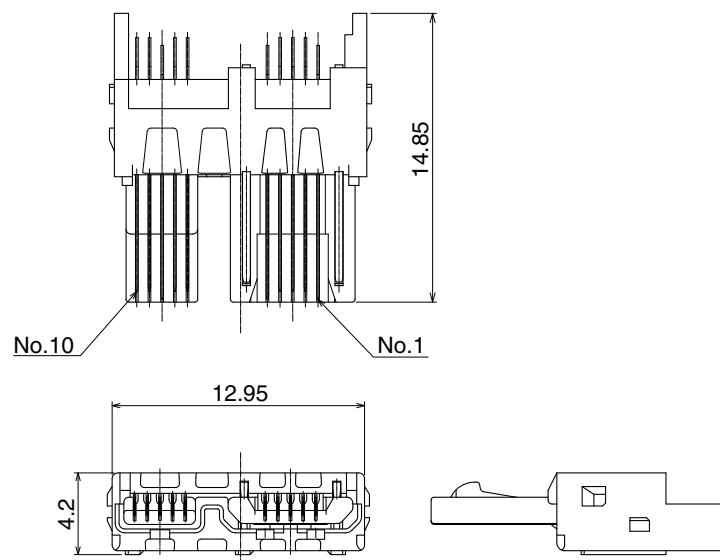
## ■ Plug Micro-B

### ● Cable side, PCB mount type

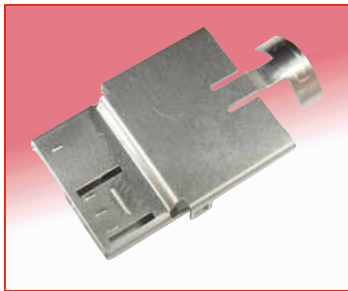


Product No.	HRS No.	Quantity
ZX360-B-10S-UNIT	CL242-0501-4-00	per 100 pieces

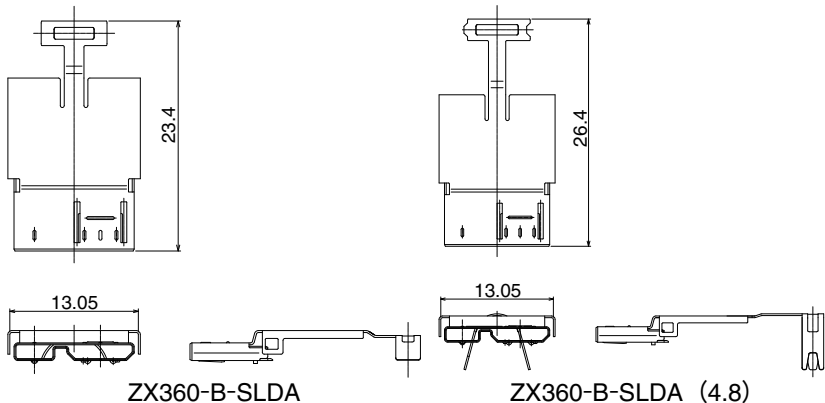
(Note) Please order the Wiring Procedure Manual separately.



● Cable side, PCB mount type shield A

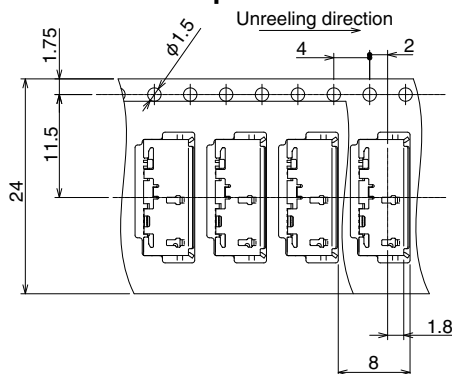


Product No.	HRS No.	Quantity	Cable Diameter
ZX360-B-SLDA	CL242-0501-4-00	2,700 pieces per reel	φ3.3
ZX360-B-SLDA(4.8)	CL242-0508-3-00	1,500 pieces per reel	φ4.8

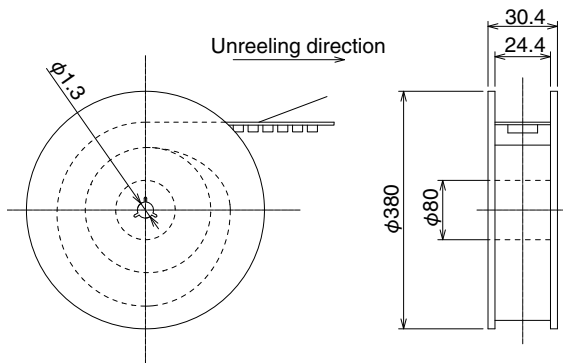


◆ Receptacle Packing Diagram (JIS C 0806-3 compliant)

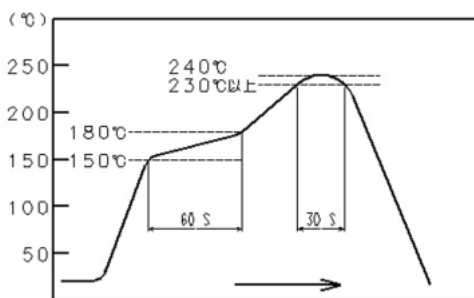
● Emboss Carrier Tape Dimensions



● Reel Condition



◆ Receptacle Reflow Temperature Profile



● Set-up Condition

- Solder paste used  
Sn96.5/Ag3.0/Cu0.5
- Board Dimensions: 35 × 35 × 0.8 mm  
Material: Glass-based epoxy resin
- Temperature measurement point  
Contact lead area

(Note 1) Reflow is allowed up to 2 times with the same conditions. Please allow the parts to return to the ambient temperature before the second run is started.  
(Note 2) The measured temperature is the temperature of the PCB surface around the connector leads.

◆ Usage Precautions

1. Please handle connectors with care because excessive external force may damage the connectors.
2. To extract the plug, hold the plug body itself and remove it straight away from the receptacle. Do not pull on the cable to extract the plug as this may damage the connector.
3. Due to the assembly process there may be some abrasions on the surface of the receptacle, they will not have a negative impact on the performance of the product.
4. Due to external variances, the plating shine on the surface of the receptacles may differ from lot to lot. This difference will not affect the performance of this product.



**HIROSE ELECTRIC CO.,LTD.**

6-3,Nakagawa Chuoh-2-Chome,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN  
 TEL: +81-45-620-3526 Fax: +81-45-591-3726  
<http://www.hirose.com>  
<http://www.hirose-connectors.com>