

USB3.0 Micro-B 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 MicroUSB 3.0 specifications and supports up to 5Gbps high speed data transmission. 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 MicroUSB 2.0 connectors, the maximum transfer speed has drastically increased from 480Mbps to 5Gbps, delivering 10 times the transfer speed.

2. Fully supports MicroUSB 2.0

Supports the plug used in MicroUSB 2.0

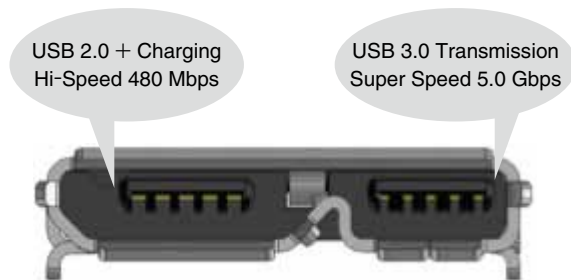
3. Design provides a smoother mating cycle and a longer life

With the extensive data and experience compiled from the previous MicroUSB 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 900ppm, 900ppm and 1500ppm, 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	1A/contact : When all contacts (No. 1 to 10) are for signal 1.8A/contact : for power contact (No. 1 & 5) and 0.5A/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	30mΩ max	Measured at 100mA
2. Withstand voltage	No flashover or breakdown	100V AC / 1min
3. Capacitance	2 pF or less	Between adjacent contacts with 1,000Hz alternative voltage
4. Durability	Contact resistance : Increase by 10mΩ or less from the initial value	10,000 mating cycles
5. Overall insertion/extraction forces	Insertion : 35N max. Extraction : 10N min.(Initial) 8N min.(After durability cycles)	Measured with applicable connector

Note 1 : Includes temperature rise caused by current flow.

Note 2 : The above specifications are representative of this series.

Hirose does not guarantee specified performance when mating with other maker's parts.

■ 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

Note : This is a halogen-free product.

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

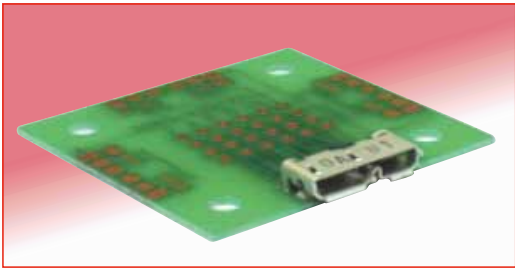
ZX 3 60 - B - SLD*
 ① ② ③ ⑤ ⑧

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.

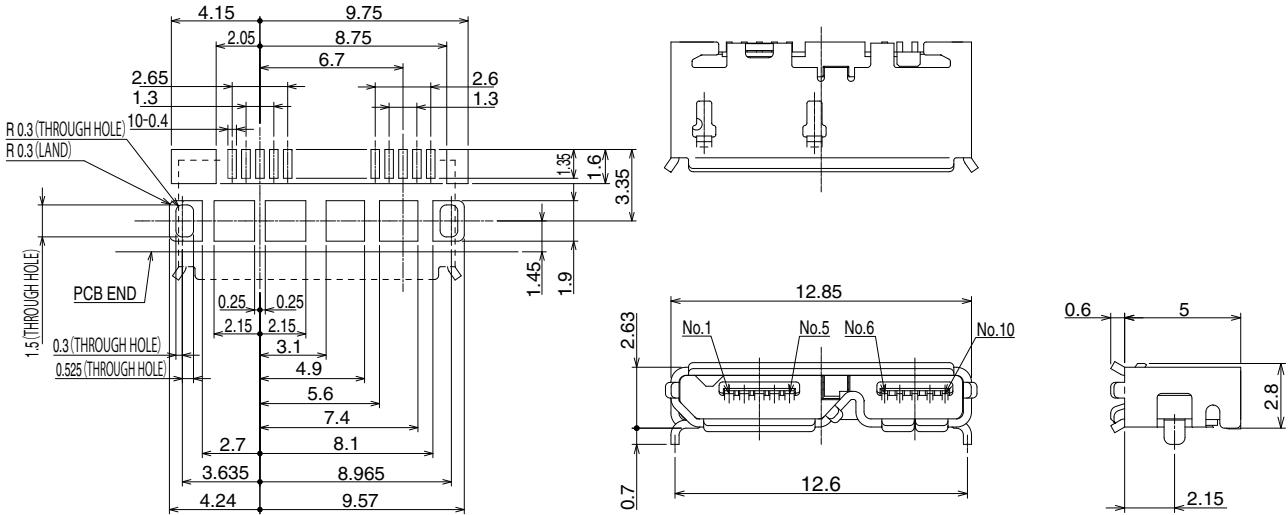
■ Receptacle Micro-B

● Standard type



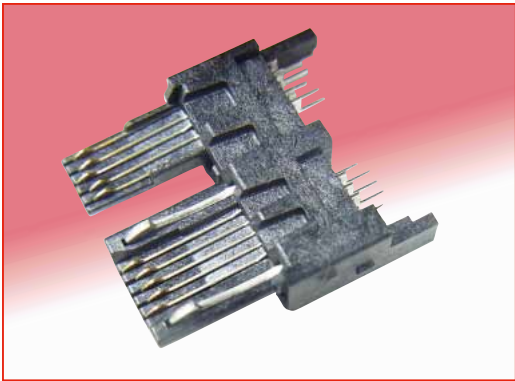
Part No.	HRS No.	Packaging
ZX360D-B-10P	242-0500-1 00	3,000 pcs/reel

◆ Recommended PCB layout (component side)



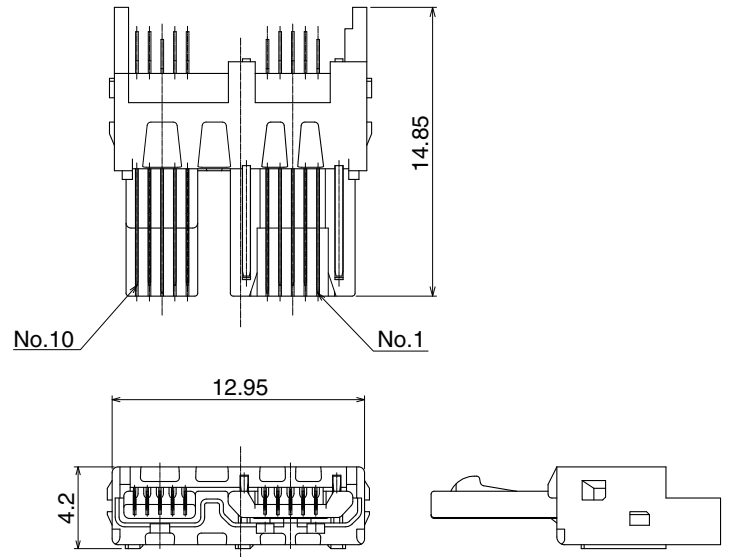
■ Plug Micro-B

● Cable side, PCB mount type

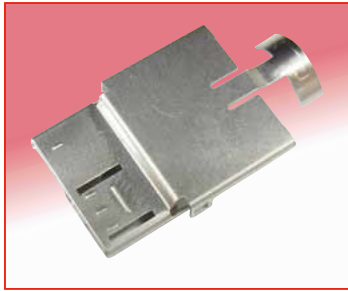


Part No.	HRS No.	Packaging
ZX360-B-10S-UNIT	242-0501-4 00	100 pcs/pack

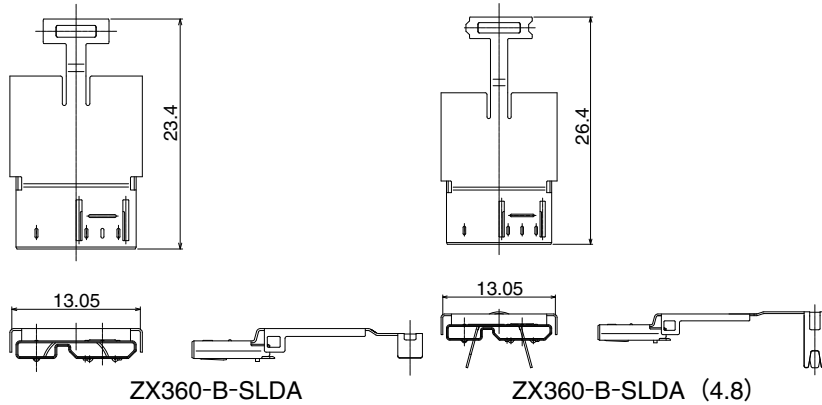
Note : Cable assembly instructions are separately available.



● Cable side, PCB mount type shield A

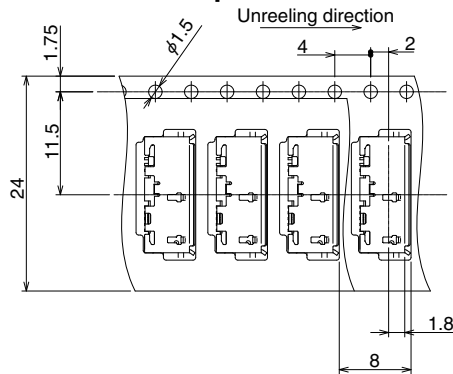


Part No.	HRS No.	Packaging	Cable Diameter
ZX360-B-SLDA	242-0502-7 00	2,700 pcs/reel	φ3.3
ZX360-B-SLDA(4.8)	242-0508-3 00	1,500 pcs/reel	φ4.8

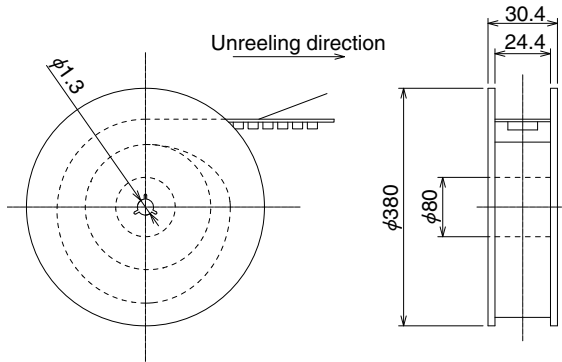


◆ Packaging Specifications (JIS C 0806-3 compliant)

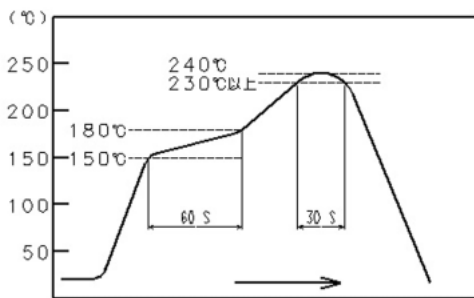
● Emboss Carrier Tape Dimensions



● Reel Dimensions



◆ Receptacle Recommended 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.

◆ 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.



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