



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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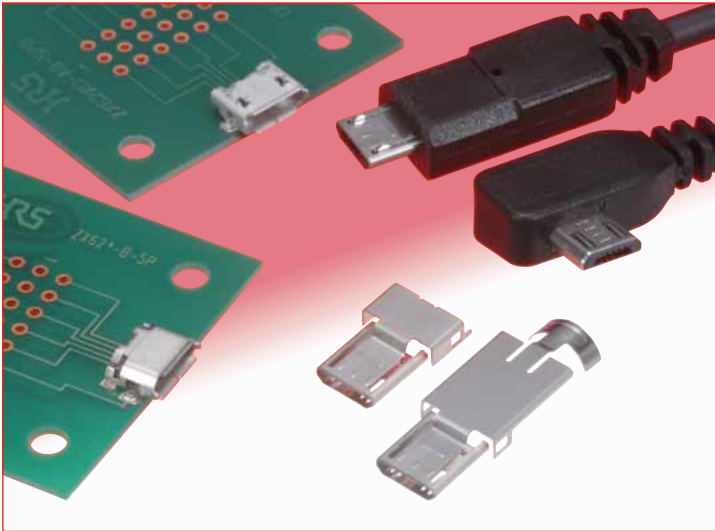
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Micro-USB connectors meeting USB 2.0 Standard

ZX Series



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

Fig.1

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.

Features

1. Size reduction

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.

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. Several plug styles can be used for data transmission, earphone or charging applications.

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).

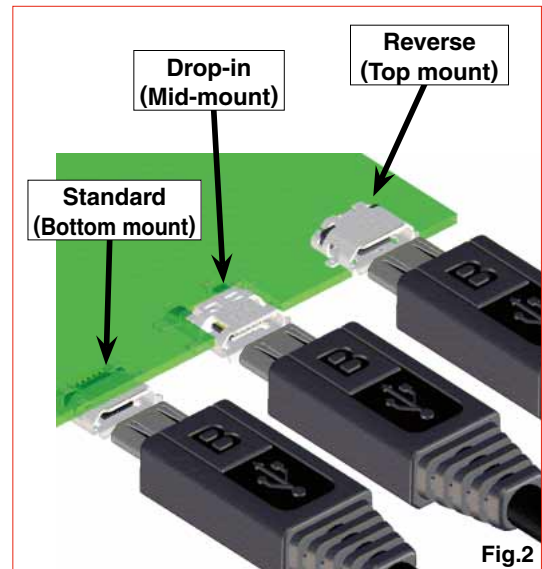


Fig.2

USB 2.0 Hi-Speed (480 Mbps)

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

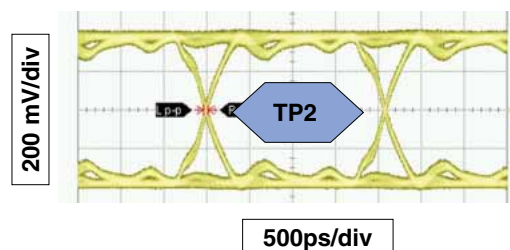


Fig.3

■ Specifications

Ratings	Current rating	1 A (per contact) or 1.8 A (contacts No. 1 and 5) and 0.5 A (contacts No. 2, 3, and 4)	Voltage rating	30 V AC
			Operating temperature range	-30°C to +85 °C (Note1)
			Storage temperature range	-30 °C to +60°C

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

Note1: Includes temperature rise caused by current flow.

Note2: 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

● Receptacles

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	————

● Plugs

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	————

■ Ordering information

● Receptacles

ZX 62 RD - B - 5 P * 8

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

● Plugs

ZX 40 - B - 5 S * - UNIT

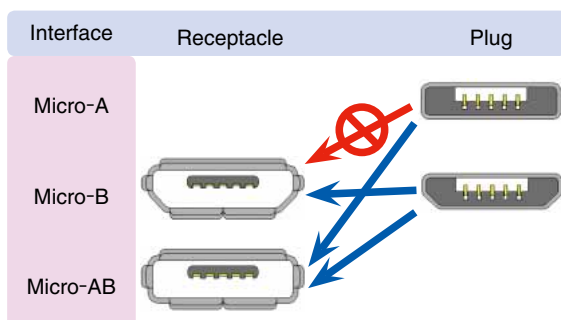
① ② ④ ⑤ ⑥ ⑦ ⑨

ZX 40 - B - SLDA

① ② ④ ⑨

① Series name	ZX
② Termination style	10's: Right-angle PCB wire, SMT 20's: Straight, PCB wire 40's: Direct wire 60's: Right-angle, PCB wire 80's: Cradle SMT
③ Board mounting style (Receptacles)	Blank Standard (Bottom mount) D Standard (Bottom mount) through hole R Reverse (Top mount) RD Reverse (Top mount) through hole M Drop-in (Mid-mount)
④ Mating side configuration	A Micro-A B Micro-B AB Micro-AB
⑤ Number of contacts	5
⑥ Contact type	P Receptacle- Male S Plug – Female
⑦ Serial No.	
⑧ Shell termination style – Blank Receptacles	SMT 8 Through hole (solder tab length: 0.8mm)
⑨ Components-plugs	UNIT Assembly (Insulator/contact/lock) Cover (Note 1)

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



■ Configurations

	Mating side configuration	Type	Part No.	3D Image	Page	
R e c e p t a c l e s	Micro-B	Standard	SMT	ZX62-B-5PA(11)		4
			SMT + DIP	ZX62D-B-5PA8		4
		Reverse	SMT	ZX62R-B-5P		5
		Drop-in	SMT	ZX62M-B-5P(01)		5
	Micro-AB	Standard	SMT	ZX62-AB-5PA(11)		6
			SMT + DIP	ZX62D-AB-5P8		6
		Reverse	SMT	ZX62R-AB-5P		7
			SMT + DIP	ZX62RD-AB-5P8		7
P l u g s	Micro-B	Direct wire soldering	Assembly (insulator/contacts/lock) :ZX40-B-5S-UNIT(12) Cover-top :ZX40-B-SLDA Cover-bottom :ZX40-SLDB		9 and 10	
		PCB wire soldering (straight, through hole)	Assembly (insulator/contacts/lock) :ZX20-B-5S-UNIT Cover :ZX20-B-SLDC		11	
		PCB wire soldering (SMT)	Assembly (insulator/contacts/lock) :ZX64-B-5S-UNIT(14) Cover-top :ZX64-B-SLDA Cover-bottom :ZX64-SLDB		12 and 13	
		PCB wire soldering (SMT)	Assembly (insulator/contacts/lock) :ZX64-B-5S-UNIT(14) Cover :ZX64-B-SLDC		12 and 14	
	Micro-A	Direct wire soldering	Assembly (insulator/contacts/lock) :ZX40-A-5S-UNIT Cover-top :ZX40-A-SLDA Cover-bottom :ZX40-SLDB		15 and 16	
C r a d l e s	Micro-B	SMT + DIP	ZX80-B-5S	With lock	17	
			ZX80-B-5SA	Without lock	17	

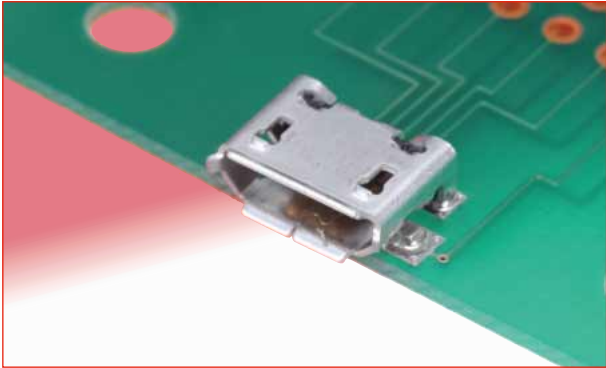
Note: 1. Part numbers in the Plugs section of the above table list the Assembly (insulator/contacts/locks) and the corresponding Shields/Covers.

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 (Page 2) for correct colors.

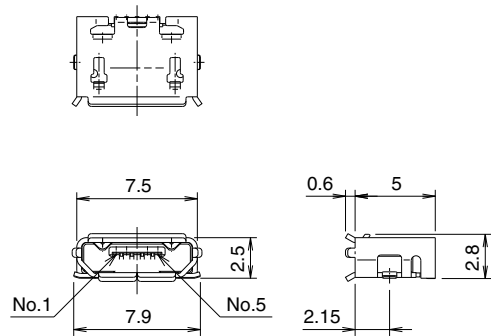
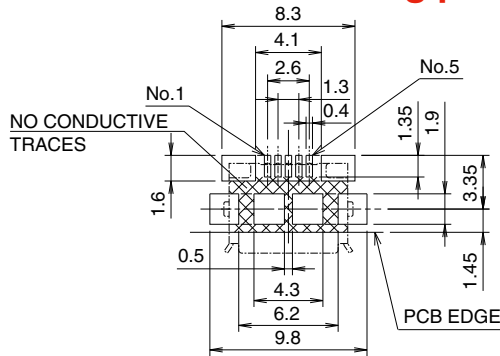
■ Receptacles

● Micro B - Standard (Bottom mount), Shell SMT



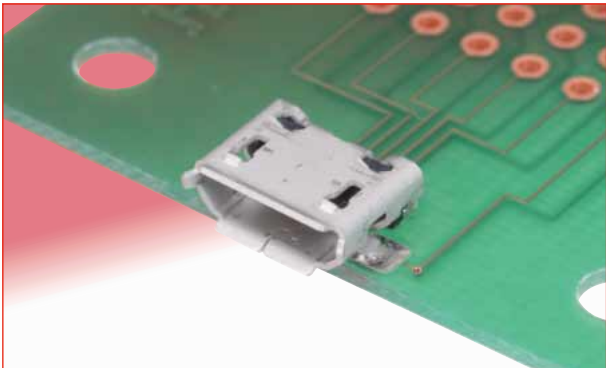
Part No.	HRS No.	Packaging
ZX62-B-5PA(11)	242-0033-8 11	3,500 pcs/reel

◆ Recommended PCB mounting pattern



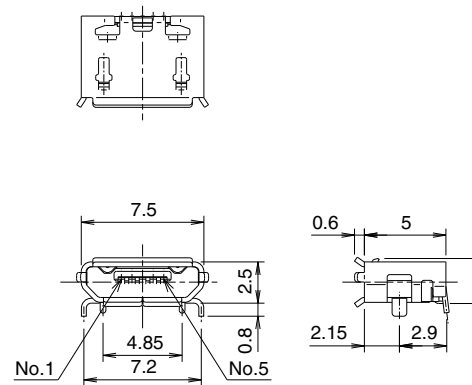
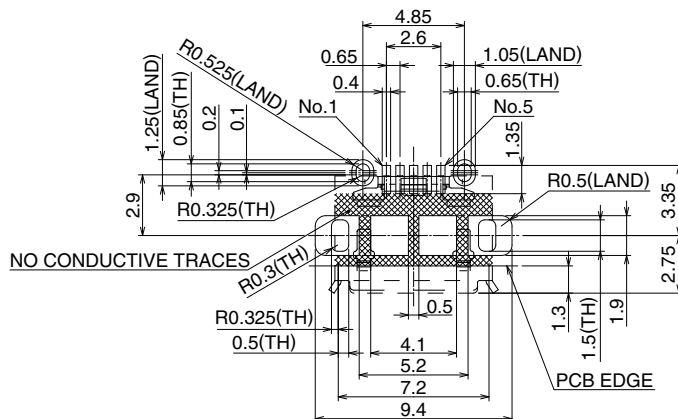
All dimensions: mm

● Micro B - Standard (Bottom mount), Shell through hole



Part No.	HRS No.	Packaging
ZX62D-B-5PA8	242-0056-3	2,000 pcs/reel

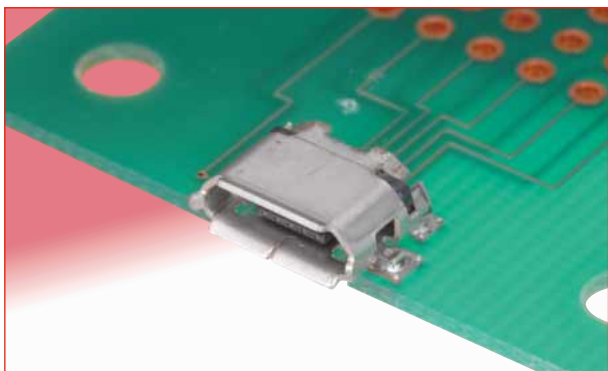
◆ Recommended PCB mounting pattern



All dimensions: mm

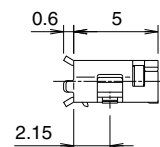
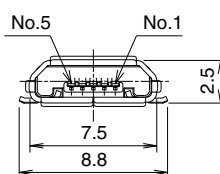
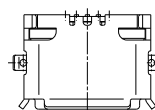
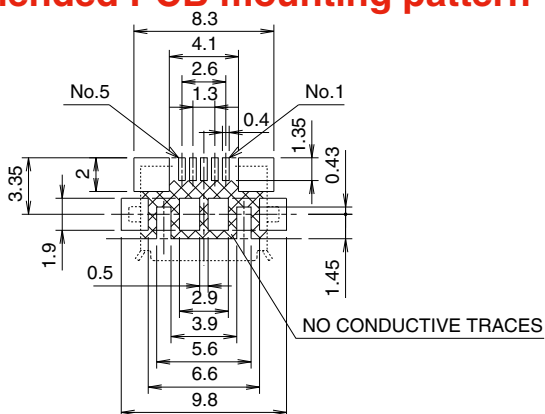
■ Receptacles

● Micro B - Reverse (Top mount) Shell SMT



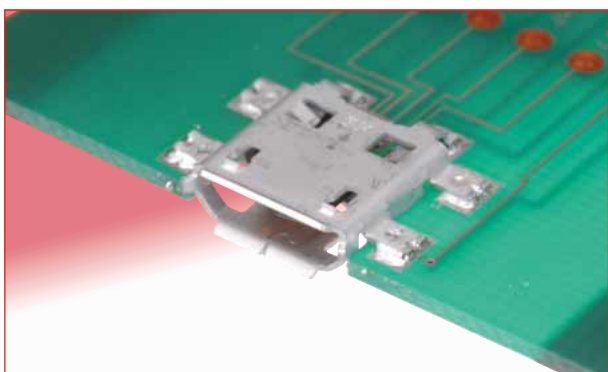
Part No.	HRS No.	Packaging
ZX62R-B-5P	242-0028-8	2,000 pcs/reel

◆ Recommended PCB mounting pattern



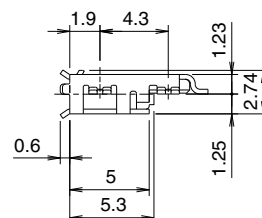
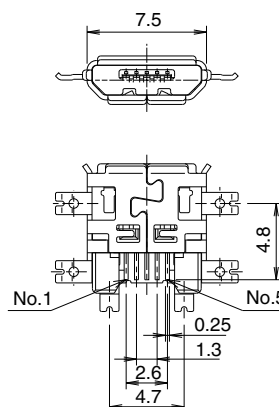
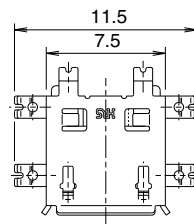
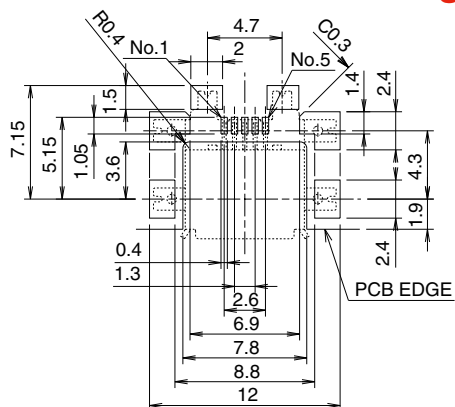
All dimensions: mm

● Micro B - Drop-in (Mid-mount), Shell SMT



Part No.	HRS No.	Packaging
ZX62M-B-5P(01)	242-0024-7 01	1,500 pcs/reel

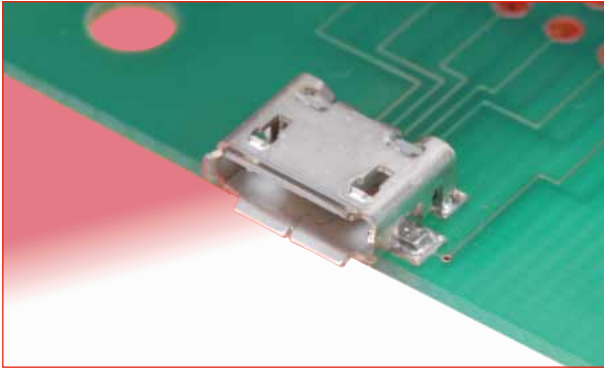
◆ Recommended PCB mounting pattern



All dimensions: mm

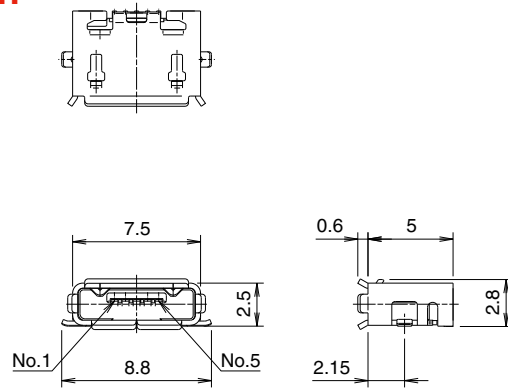
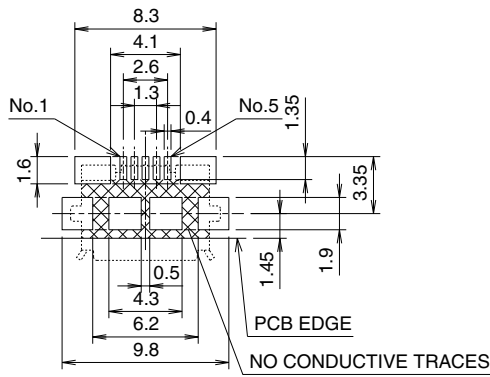
■ Receptacles

● Micro AB - Standard (Bottom mount), Shell SMT



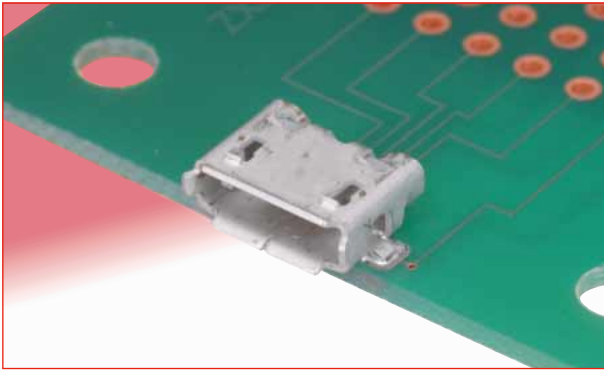
Part No.	HRS No.	Packaging
ZX62-AB-5PA(11)	242-0045-7 11	3,500 pcs/reel

◆ Recommended PCB mounting pattern



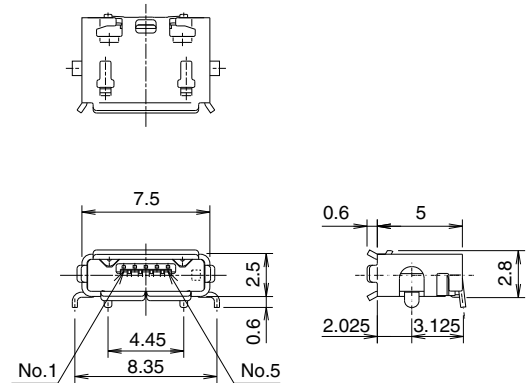
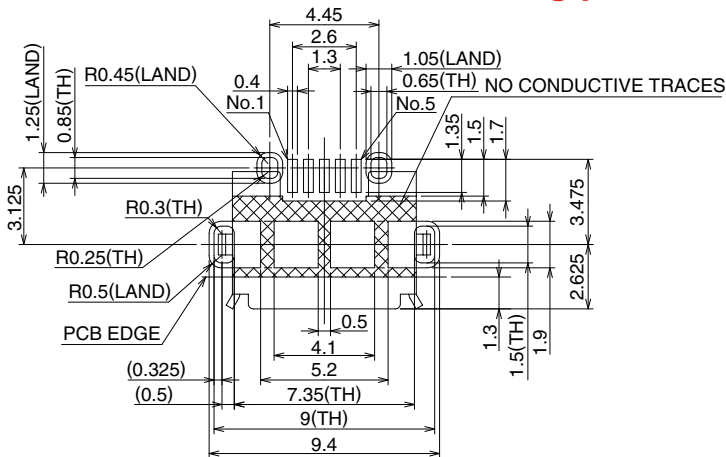
● Micro AB - Standard (Bottom mount), Shell through hole

All dimensions: mm



Part No.	HRS No.	Packaging
ZX62D-AB-5P8	242-0027-5	2,000 pcs/reel

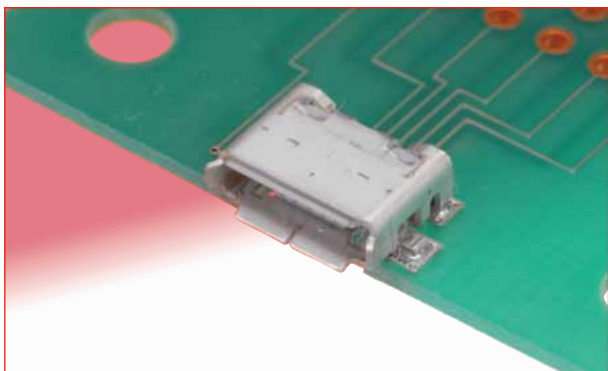
◆ Recommended PCB mounting pattern



All dimensions: mm

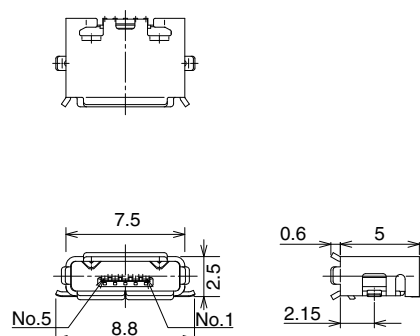
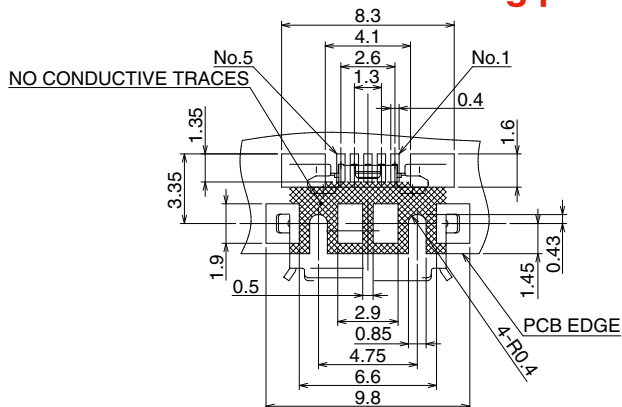
Receptacles

Micro AB - Reverse (Top mount), Shell SMT

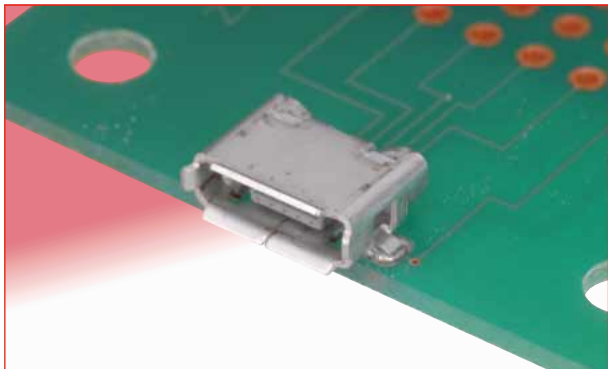


Part No.	HRS No.	Packaging
ZX62R-AB-5P	242-0035-3	2,000 pcs/reel

Recommended PCB mounting pattern



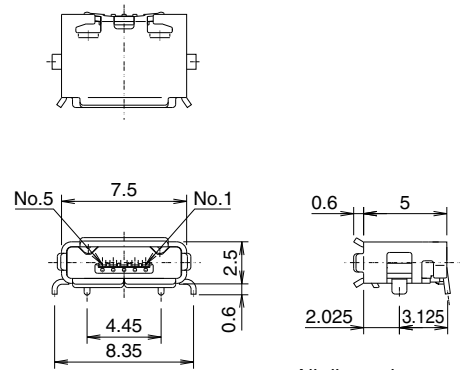
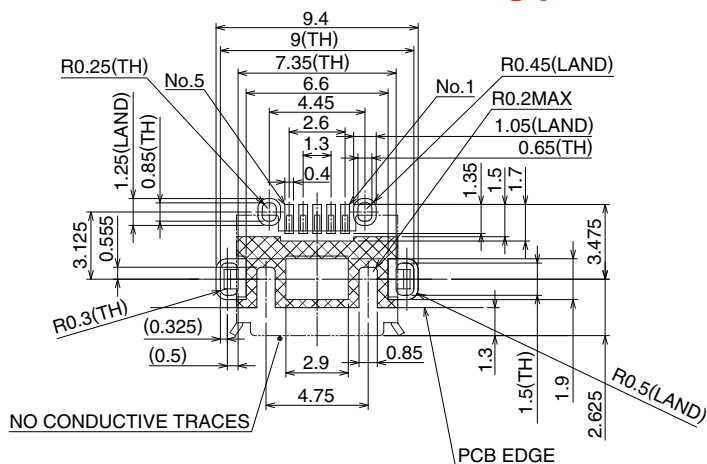
Micro AB - Reverse (Top mount), Shell through hole



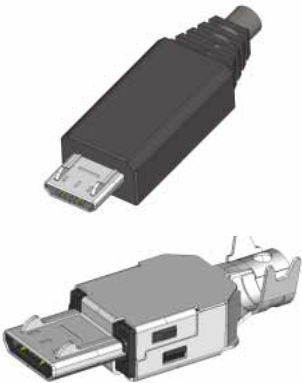


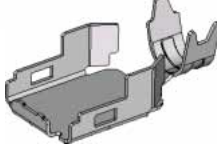
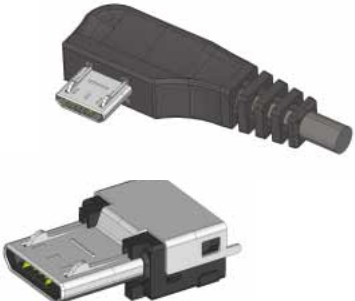
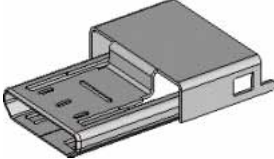

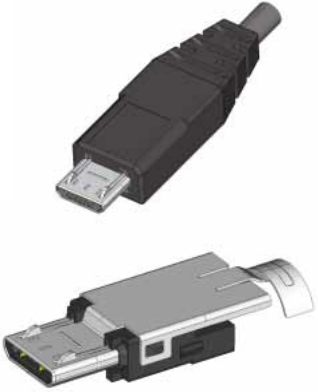
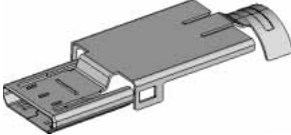

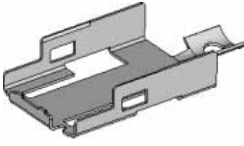
All dimensions: mm

Part No.	HRS No.	Packaging
ZX62RD-AB-5P8	242-0025-0	2,000 pcs/reel

Recommended PCB mounting pattern



All dimensions: mm

Plugs – assembled (not-terminated, without overmold)	Components
<p data-bbox="240 197 695 232" style="text-align: center;">ZX40 - Direct wire soldering</p> 	 <p data-bbox="1177 271 1414 300" style="text-align: center;">ZX40-*SLDA</p> <p data-bbox="1177 309 1267 331">Cover-top</p>  <p data-bbox="1177 400 1414 430" style="text-align: center;">ZX40-*5S-UNIT</p> <p data-bbox="1177 439 1366 506">Assembly (insulator/ contacts/lock) *No PCB required</p>  <p data-bbox="1177 544 1414 573" style="text-align: center;">ZX40-SLDB</p> <p data-bbox="1177 582 1302 604">Cover-bottom</p>
<p data-bbox="240 672 695 707" style="text-align: center;">ZX20 - PCB wire soldering</p> 	 <p data-bbox="1177 768 1414 797" style="text-align: center;">ZX20-*SLDC</p> <p data-bbox="1177 806 1235 828">Cover</p>  <p data-bbox="1177 916 1414 945" style="text-align: center;">ZX20-*5S-UNIT</p> <p data-bbox="1177 954 1414 1043">Assembly (insulator/ contacts/lock) *Vertical through hole PCB termination</p>
<p data-bbox="240 1079 695 1115" style="text-align: center;">ZX64 - PCB wire soldering</p> 	 <p data-bbox="1177 1153 1414 1182" style="text-align: center;">ZX64-*SLDA</p> <p data-bbox="1177 1191 1267 1214">Cover-top</p>  <p data-bbox="1177 1288 1414 1317" style="text-align: center;">ZX64-*5S-UNIT</p> <p data-bbox="1177 1326 1414 1415">Assembly (insulator/ contacts/lock) *Right angle through hole PCB termination</p>  <p data-bbox="1177 1476 1414 1505" style="text-align: center;">ZX64-SLDB</p> <p data-bbox="1177 1514 1302 1536">Cover-bottom</p>

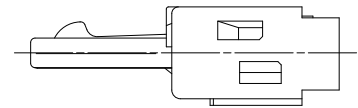
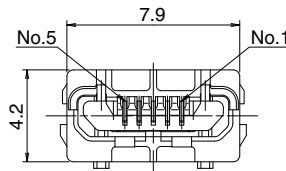
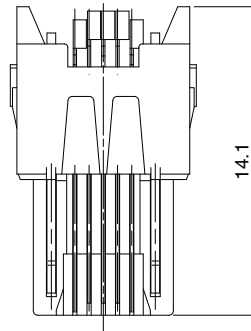
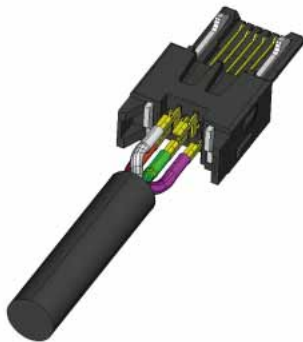
■ Plugs

● Micro B - Assembly (insulator/contacts/lock) – Direct wire soldering



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ZX40-B-5S-UNIT(12)	242-0002-4 12	4,000 pcs/reel

Contact HRS for Cable Termination Procedure Manual.

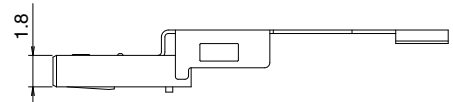
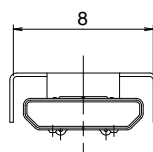
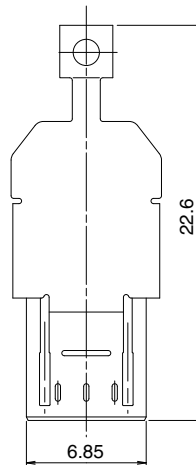


All dimensions: mm

● Micro B - Component, Cover-top - Direct wire soldering



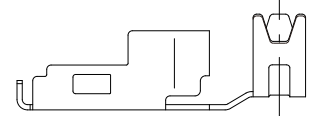
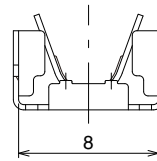
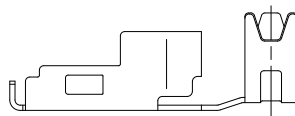
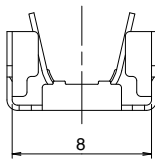
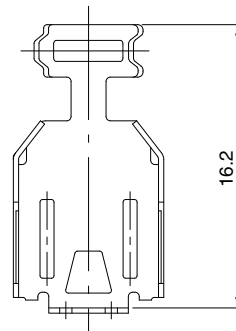
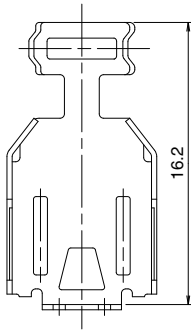
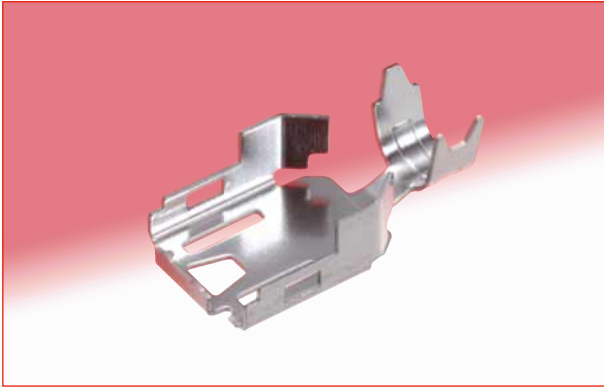
Part No.	HRS No.	Packaging
ZX40-B-SLDA	242-0003-7	4,000 pcs/reel



All dimensions: mm

■ Plugs

● Micro A, Micro B - Component, Cover-bottom - Direct wire soldering



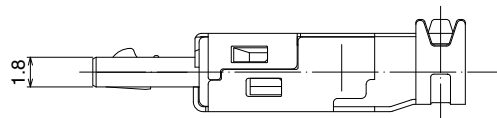
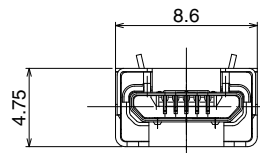
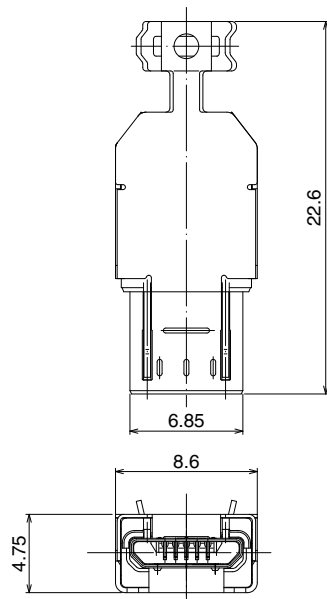
All dimensions: mm

ZX40-SLDB

ZX40-SLDB(3.3)

Part No.	HRS No.	Packaging	Cable dia.
ZX40-SLDB	242-0004-0	4,000 pcs/reel	φ3.8
ZX40-SLDB(3.3)	242-0023-4		φ3.3

● Assembled



All dimensions: mm

■ Plugs

● Micro B - Assembly (insulator/contacts/lock) - Vertical through hole PCB wire soldering (non-direct)

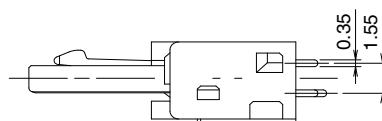
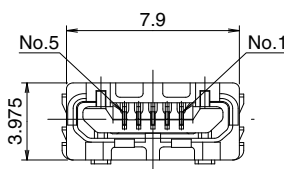
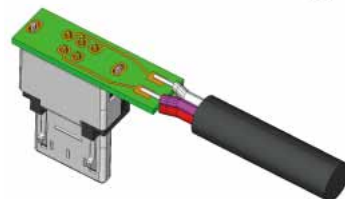
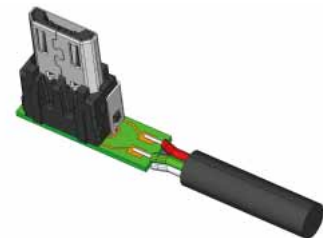
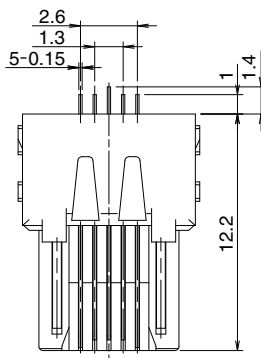
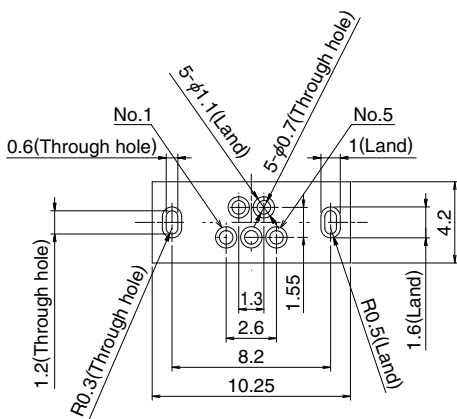


Part No.	HRS No.	Packaging
ZX20-B-5S-UNIT	242-0012-8 00	4,000 pcs/pks

Contact HRS for Cable Termination Procedure Manual.

PCB mounting pattern

*PCB required (not supplied)
Max. thickness: 0.6mm



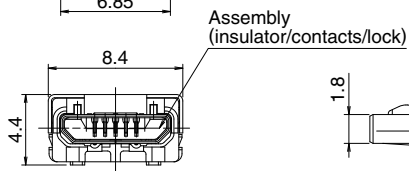
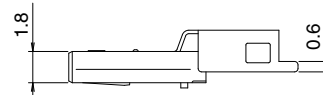
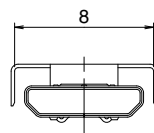
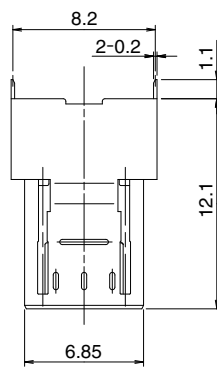
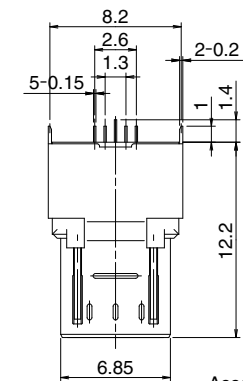
All dimensions: mm

● Micro B - Component, Cover - through hole



Part No.	HRS No.	Packaging
ZX20-B-SLDC	242-0022-1	4,000 pcs/reel

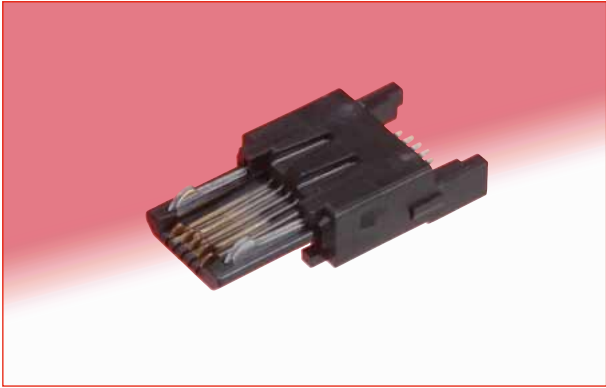
● Assembled



All dimensions: mm

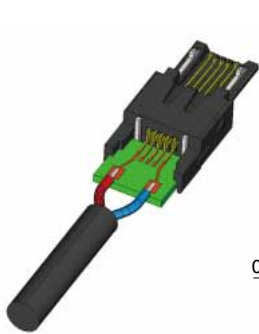
Plugs

● Micro B - Assembly (insulator/contacts/lock) - Right angle SMT

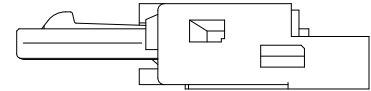
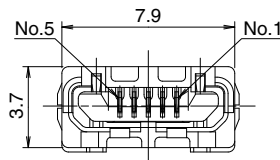
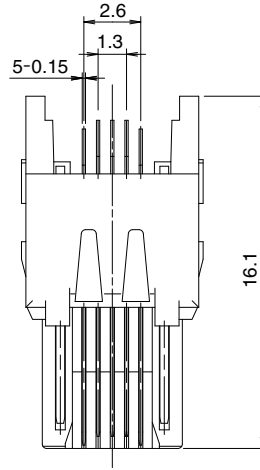
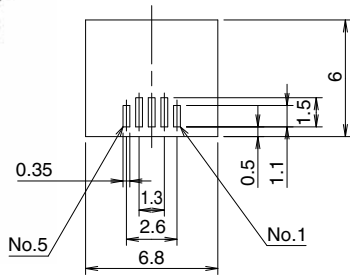


Part No.	HRS No.	Packaging
ZX64-B-5S-UNIT(14)	242-0009-3 14	1 piece

Contact HRS for Cable Termination Procedure Manual.

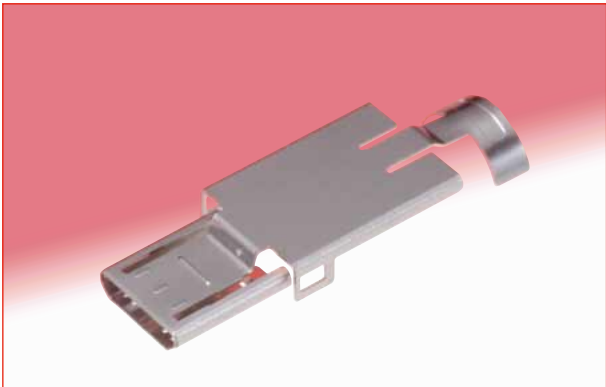


PCB mounting pattern
*PCB required (not supplied)
Max. thickness: 1.0mm

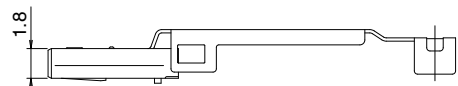
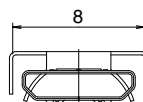
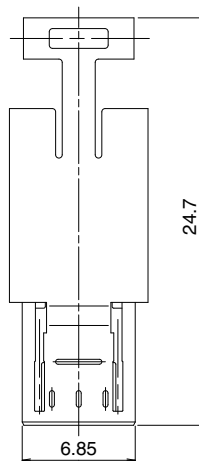


All dimensions: mm

● Micro B - Component, Cover-top – Right angle SMT



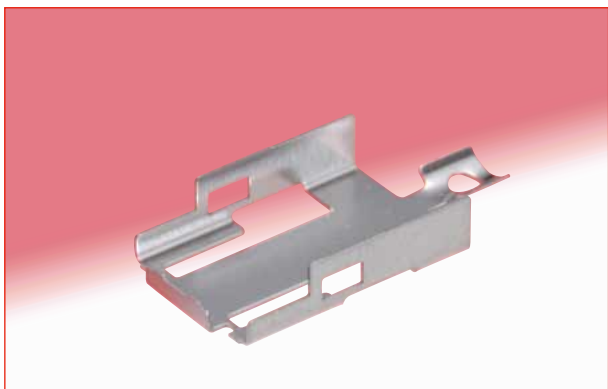
Part No.	HRS No.	Packaging
ZX64-B-SLDA	242-0013-0	4,000 pcs/reel



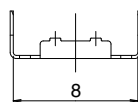
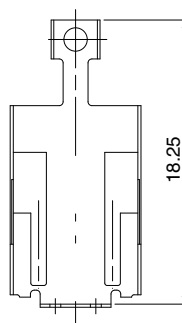
All dimensions: mm

Plugs

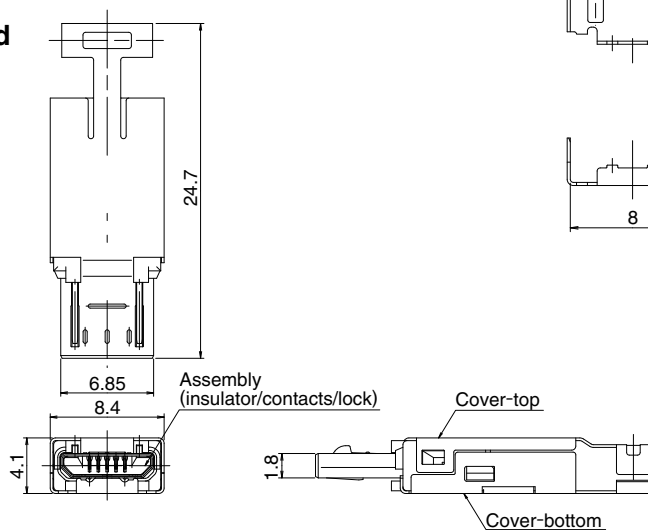
● Micro B - Component, Cover-bottom - Right angle SMT



Part No.	HRS No.	Packaging
ZX64-SLDB	242-0049-8	4,000 pcs/reel



● Assembled

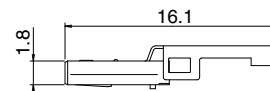
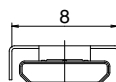
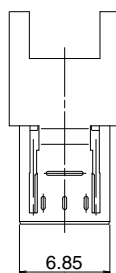


All dimensions: mm

● Micro B - Component, Shell/cover – Right angle SMT

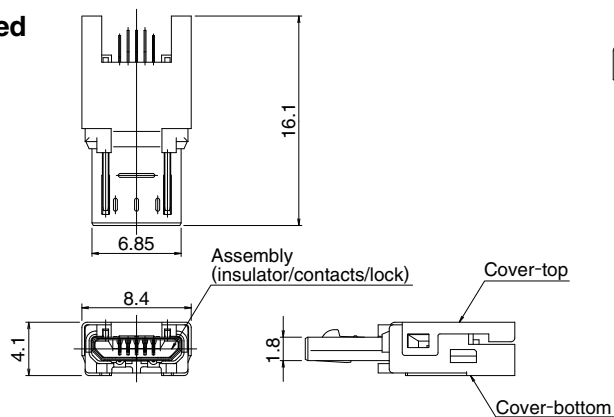


Part No.	HRS No.	Packaging
ZX64-B-SLDC	242-0018-4	4,000 pcs/reel



Shell/cover, without cable clamp
This shell/cover does not require ZX64-SLDB.

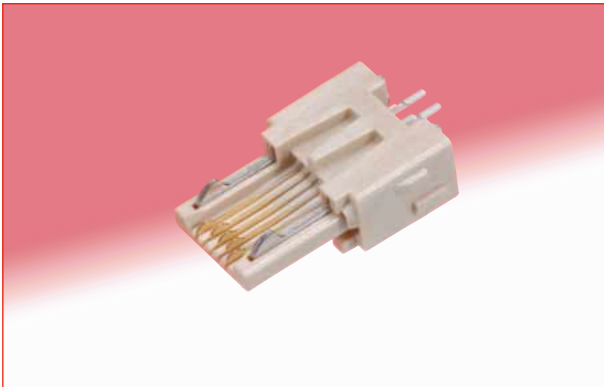
● Assembled



All dimensions: mm

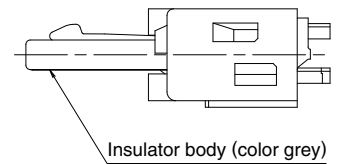
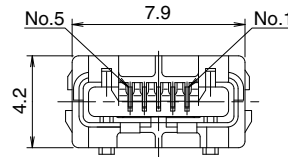
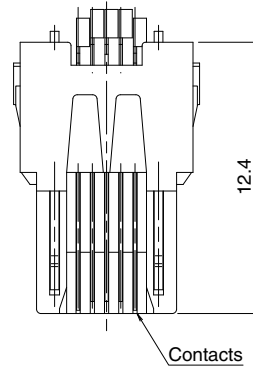
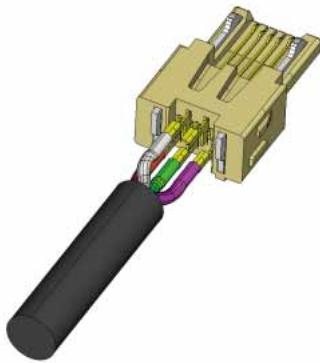
■ Plugs

● Micro A - Assembly (insulator/contacts/lock) - Direct wire soldering



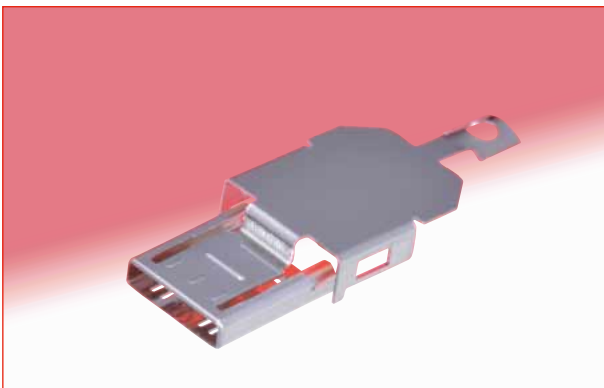
Part No.	HRS No.	Packaging
ZX40-A-5S-UNIT	242-0010-2	1 piece

Contact HRS for Cable Termination Procedure Manual.

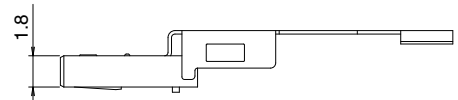
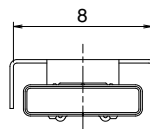
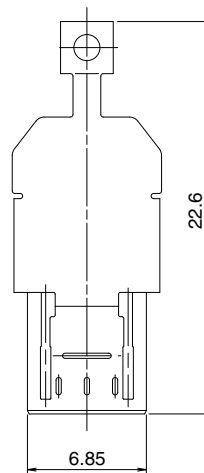


All dimensions: mm

● Micro A - Component, Cover-top - Direct wire soldering



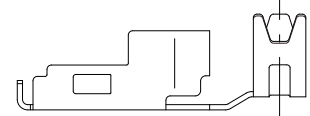
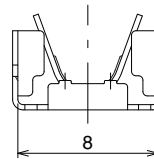
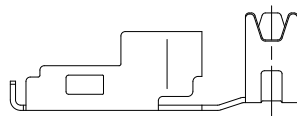
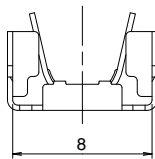
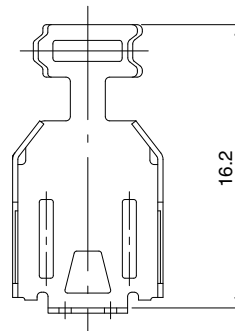
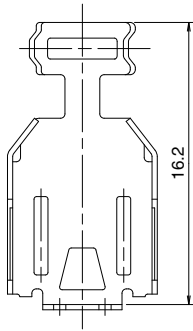
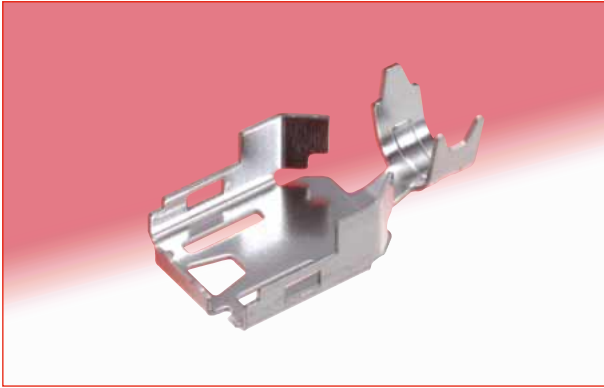
Part No.	HRS No.	Packaging
ZX40-A-SLDA	242-0011-5	4,000 pcs/reel



All dimensions: mm

Plugs

● Micro A, Micro B - Component, Cover-bottom - Direct wire soldering



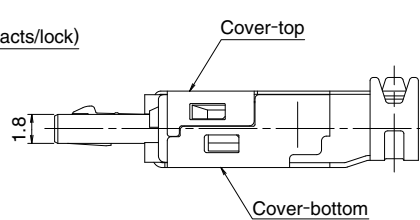
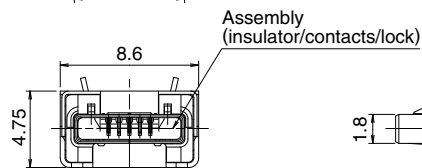
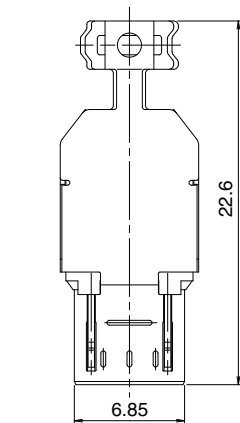
ZX40-SLDB

ZX40-SLDB(3.3)

All dimensions: mm

Part No.	HRS No.	Packaging	Cable dia.
ZX40-SLDB	242-0004-0	4,000 pcs/reel	φ3.8
ZX40-SLDB(3.3)	242-0023-4		φ3.3

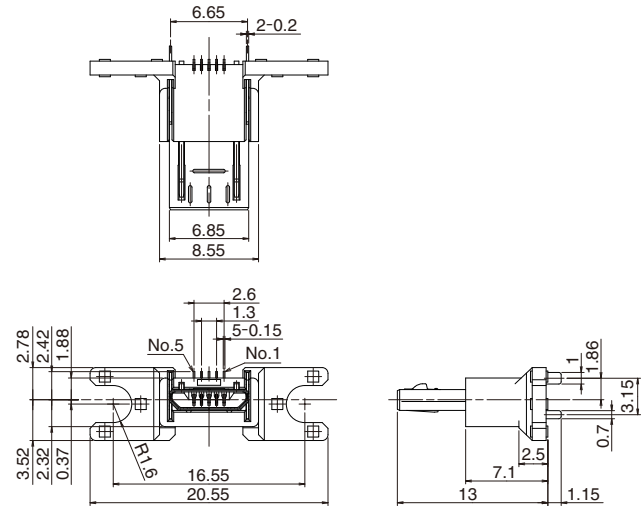
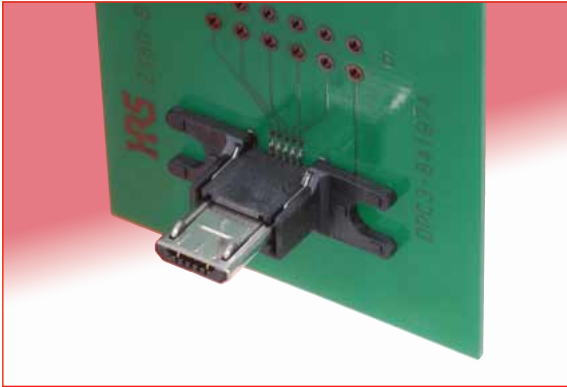
● Assembled



All dimensions: mm

■ Plug-Vertical, cradle mount, Shell through hole

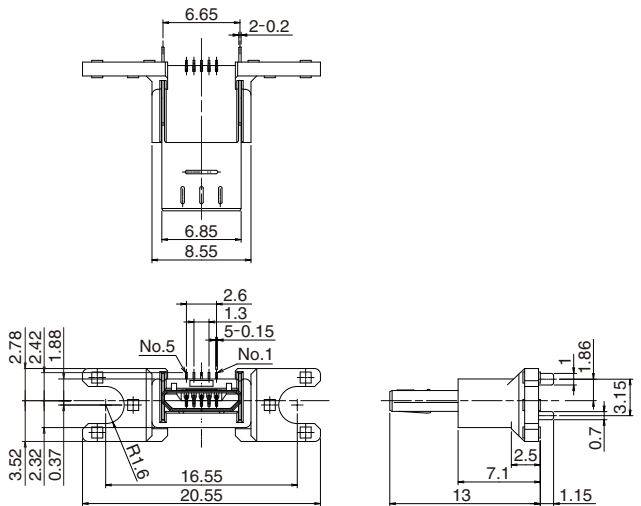
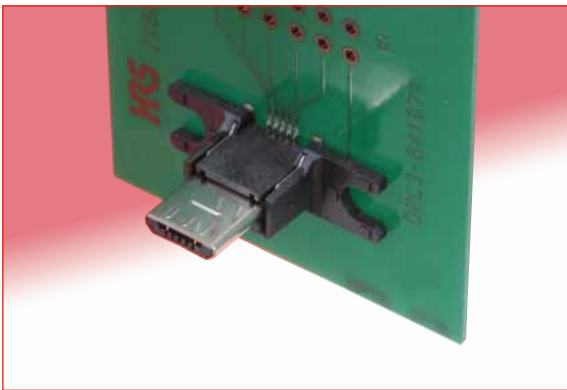
● Micro B, with lock



Part No.	HRS No.	Packaging
ZX80-B-5S	242-0017-1	100 pcs/pks

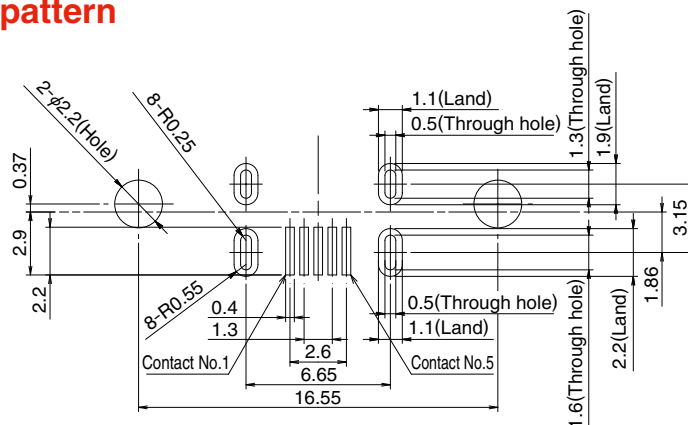
All dimensions: mm

● Micro B, without lock



Part No.	HRS No.	Packaging
ZX80-B-5SA	242-0019-7	100 pcs/pks

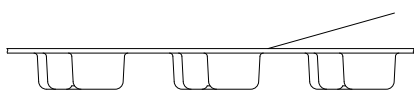
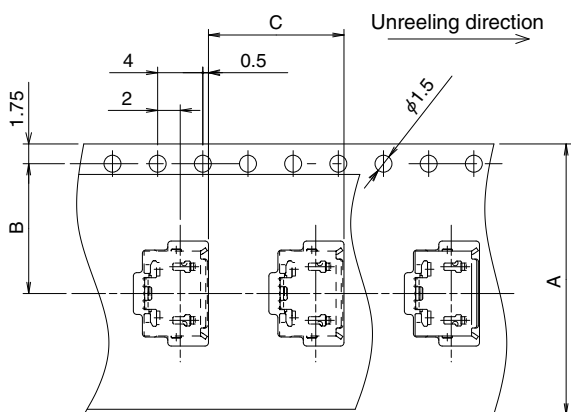
◆ PCB mounting pattern



All dimensions: mm

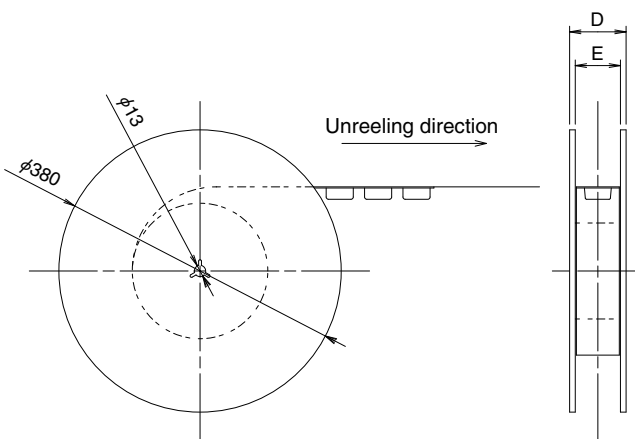
◆ Packaging Specifications

● Embossed carrier tape dimensions



Part No.	A dimension	B dimension
ZX62-B-5PA(11)	24	11.5
ZX62-AB-5PA(11)	24	11.5
ZX62M-B-5P(01)	24	11.5
Other	16	7.5

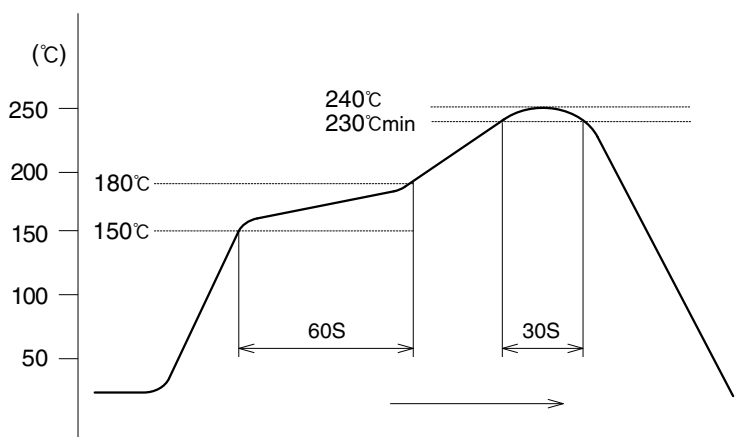
● Reel Dimensions



Part No.	D dimension	E dimension
ZX62-B-5PA(11)	30.4	24.4
ZX62-AB-5PA(11)	30.4	24.4
ZX62M-B-5P(01)	30.4	24.4
Other	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

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



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