

| APPLICABLE STANDARD   |                             | USB3.0 SPECIFICATION AND MICRO-USB CABLE AND CONNECTORS SPECIFICATION.  |                             |  |  |            |
|---|-----------------------------|---|-----------------------------|--|--|------------|
| RATING  | OPERATING TEMPERATURE RANGE | -30°C TO +85°C  | OPERATING TEMPERATURE RANGE | -30°C TO +60°C   |  |            |
|   | VOLTAGE                     | 30V AC  | CURRENT                     | SIGNAL ONLY  | 1.0 A/pin  |            |
|   |                             |   |                             | POWER APPLY  | 1.8 A/pin (PIN No.1, No.5)<br>0.5 A/pin (PIN No.2-No.4.) |            |
| <b>SPECIFICATIONS</b>   |                             |   |                             |  |  |            |
| ITEM  |                             | TEST METHOD   |                             | REQUIREMENTS   | QT   | AT         |
| <b>CONSTRUCTION</b>   |                             |   |                             |  |  |            |
| GENERAL EXAMINATION   |                             | VISUALLY AND BY MEASURING INSTRUMENT.   |                             | ACCORDING TO DRAWING.  | X  | X          |
| MARKING   |                             | CONFIRMED VISUALLY.   |                             |  | X  | X          |
| <b>ELECTRICAL CHARACTERISTICS</b>   |                             |   |                             |  |  |            |
| CONTACT RESISTANCE  |                             | 100 mA (DC OR 1000 Hz).   |                             | 30 mΩ MAX.   | X  | X          |
| INSULATION RESISTANCE   |                             | 500 V DC.   |                             | 1000 MΩ MIN.   | X  | X          |
| VOLTAGE PROOF   |                             | 100 V AC FOR 1 min.   |                             | NO FLASHOVER OR BREAKDOWN.   | X  | X          |
| CAPACITANCE   |                             | MEASURE ADJACENT TWO CONTACTS AT 1000 ± 10 Hz AC VOLTAGE.   |                             | 2 pF MAX.  | X  | -          |
| <b>MECHANICAL CHARACTERISTICS</b>   |                             |   |                             |  |  |            |
| INSERTION AND WITHDRAWAL FORCES   |                             | A MAXIMUM RATE OF 12.5 mm/min MEASURED BY APPLICABLE CONNECTOR  |                             | INSERTION FORCE 35 N MAX.<br>WITHDRAWAL FORCE 8 N MIN.   | X  | -          |
| MECHANICAL OPERATION  |                             | 10000 TIMES INSERTIONS AND EXTRACTIONS.<br>MATING SPEED<br>- MECHANICALLY OPERATED : 500 CYCLES / h<br>or<br>- MANUALLY OPERATED : 200 CYCLES / h |                             | 1) CONTACT RESISTANCE:<br>NO INCREASE OF MORE THAN 10 mΩ FROM INITIAL VALUE.<br>2) INSERTION FORCE 35 N MAX.<br>WITHDRAWAL FORCE 8 N MIN.<br>3) NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X  | -          |
| VIBRATION   |                             | FREQUENCY 10 TO 55 Hz<br>SINGLE AMPLITUDE 0.75 mm, AT 2h<br>(6 HOURS IN TOTAL) FOR 3 AXIAL DIRECTIONS.  |                             | 1) NO ELECTRICAL DISCONTINUITY OF 1μs.<br>2) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | X  | -          |
| RANDOM VIBRATION  |                             | FREQUENCY 50 TO 2000 Hz AT 15 min<br>(45 MINUTES IN TOTAL) FOR 3 AXIAL DIRECTIONS.  |                             |  | X  | -          |
| SHOCK   |                             | 490 m/s <sup>2</sup> DIRECTIONS OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS. (18 TIMES.)   |                             |  | X  | -          |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>  |                             |   |                             |  |  |            |
| THERMAL SHOCK   |                             | TEMP -55 → +15 TO +35 → +85 → +15 TO +35 °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min.<br>UNDER 10 CYCLES.<br>(MATING APPLICABLE CONNECTOR)           |                             | 1) CONTACT RESISTANCE: 70 mΩ MAX.<br>2) INSULATION RESISTANCE: 100 MΩ MIN.<br>3) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | X  | -          |
| HUMIDITY LIFE   |                             | TEMPERATURE -10~65 °C, HUMIDITY 90 TO 98 %, UNDER 7 CYCLES (168 h)<br>(MATING APPLICABLE CONNECTOR)   |                             | NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | X  | -          |
| DRY HEAT  |                             | EXPOSED AT 85 ± 2 +25 °C, 96 h.<br>(MATING APPLICABLE CONNECTOR)  |                             | NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | X  | -          |
| COLD  |                             | EXPOSED AT -40 ± 2 +25 °C, 96 h.<br>(MATING APPLICABLE CONNECTOR)   |                             | NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | X  | -          |
| CORROSION SALT MIST   |                             | EXPOSED AT 5 % SALT WATER, 35 °C, FOR 48h.<br>(LEFT UNDER UNMATED CONDITION.)   |                             | NO HEAVY CORROSION.  | X  | -          |
| RESISTANCE TO SOLDERING HEAT  |                             | A PROFILE IS SHOWN IN FIG-1, UNDER 2 CYCLES.  |                             | NO DEFORMATION OR SIGNIFICANT LOOSENESS OF CONTACTS.   | X  | -          |
| COUNT   | DESCRIPTION OF REVISIONS    |   | DESIGNED                    | CHECKED  | DATE   |            |
| ▲   | 3                           | DIS-E-003119  | TS. SAKAIZAWA               | KN. ICHIKAWA   | 10. 01. 28   |            |
| REMARK  |                             |   |                             | APPROVED   | AO. SUZUKI   | 09. 06. 16 |
| HIROSE will not guarantee the performance on these specifications In case this product will be mated with the others which is not HIROSE's. |                             |   |                             | CHECKED  | KN. ICHIKAWA   | 09. 06. 16 |
| Unless otherwise specified, refer to USB3.0 or EIA 364 .  |                             |   |                             | DESIGNED   | TS. SAKAIZAWA  | 09. 06. 15 |
|   |                             |   |                             | DRAWN  | TS. SAKAIZAWA  | 09. 06. 15 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test  |                             |   | DRAWING NO.                 |  | ELC4-127028-00   |            |
| <b>HR</b>   | SPECIFICATION SHEET         |   | PART NO.                    | ZX360D-B-10P ▲   |  |            |
|   | HIROSE ELECTRIC CO., LTD.   |   | CODE NO.                    | CL242-0500-1-00 ▲ 1/2  |  |            |

FORM HD0011-2-1

# SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|------|-------------|--------------|----|----|
|------|-------------|--------------|----|----|

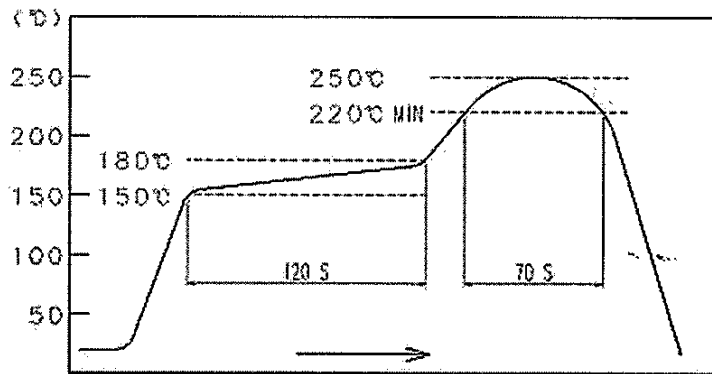


FIG - 1. RESISTANCE TO SOLDERING HEAT  
(TEMPERATURE AT TOP SURFACE OF CONNECTOR)

RECOMMENDED PROFILE REFERS TO FIG - 2.  
(TEMPERATURE AT SMT LEADS)

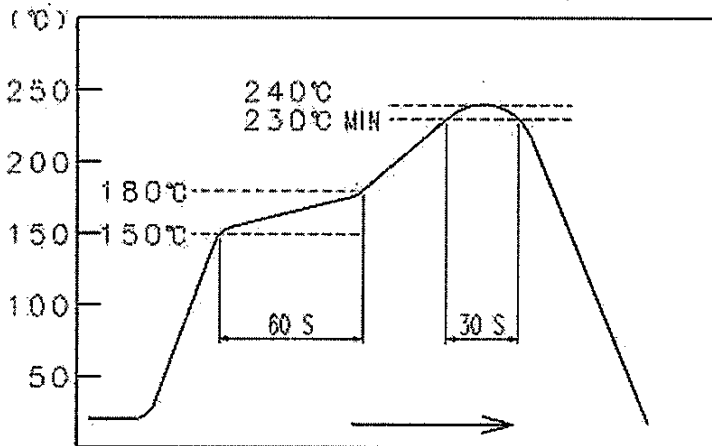
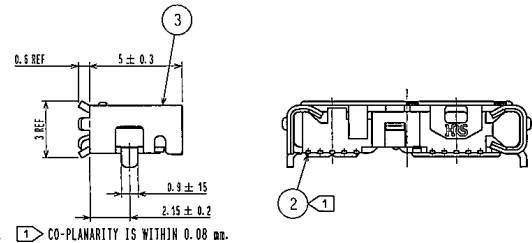
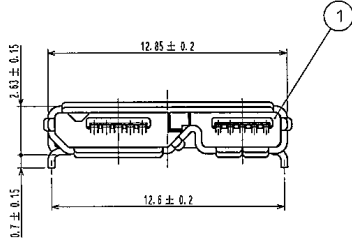
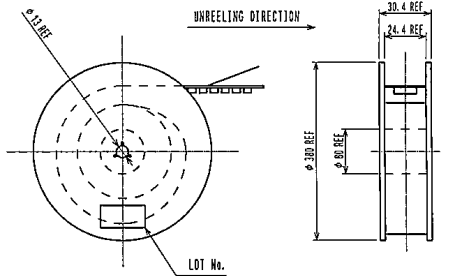
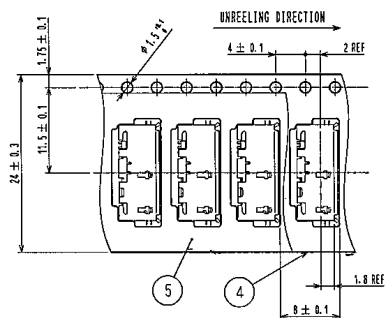
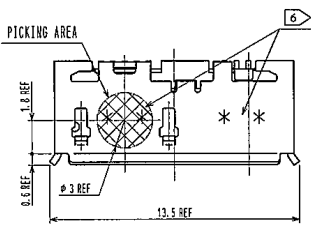


FIG - 2. RECOMMENDED REFLOW PROFILE TEMPERATURE

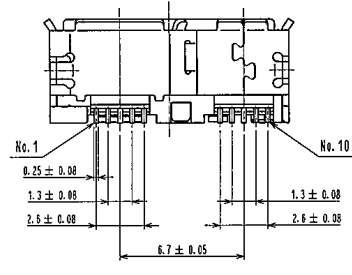
|  |                           |                            |                      |
|--|---------------------------|----------------------------|----------------------|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                           | DRAWING NO. ELC4-127028-00 |                      |
| <b>HRS</b>   | SPECIFICATION SHEET       | PART NO.                   | ZX360D-B-10P         |
|  | HIROSE ELECTRIC CO., LTD. | CODE NO                    | CL242-0500-1-00  2/2 |

3 DRAWING FOR PACKAGING (FREE)



6 LOT NUMBER (4 DIGITS)

| YEAR      | MONTH      | DAY      | LINE No.      |
|-----------|------------|----------|---------------|
| YEAR CODE | MONTH CODE | DAY CODE | LINE No. CODE |
| 2009      | 9          | 1        | 1             |
| 2010      | 0          | 1        | 2             |
| 2011      | 1          | 1        | 3             |
| 2012      | 2          | 1        | 4             |
| 2013      | 3          | 1        | 5             |
|           | 4          | 1        | 6             |
|           | 5          | 1        | 7             |
|           | 6          | 1        | 8             |
|           | 7          | 1        | 9             |
|           | 8          | 1        | 10            |
|           | 9          | 1        | 11            |
|           | 10         | 1        | 12            |
|           | 11         | 1        | 13            |
|           | 12         | 1        | 14            |



- 注 1 > CO-PLANARITY IS WITHIN 0.08 mm.
- 2 > THE PLATING SPECIFICATION  
 CONTACT AREA : PALLADIUM PLATING 0.75 μm MIN. + GOLD PLATING 0.05 μm MIN.  
 MOUNTING AREA : GOLD PLATING 0.05 μm MIN.  
 UNDERPLATING : NICKEL PLATING 2 μm MIN.
- 3 > 3000 PCS PER REEL.
- 4 . CONNECTOR OPENING CONFIGURATION SATISFIES USB3.0 SPECIFICATIONS.
- 5 . SCRATCH MARK COULD BE MADE ON THE SURFACE OF REF NO. 3 DURING ASSEMBLY PROCESS, WHICH DOES NOT AFFECT THE PERFORMANCE. LEVEL OF PLATING BRIGHTNESS COULD VARY, WHICH DOES NOT AFFECT THE PERFORMANCE.
- 6 > INDICATE THE LOT NO. WITH 4 DIGITS AT THE SPECIFIED POSITION.

| 2                             | COPPER ALLOY   | 2               | 5             | PE              |                                 |                 |         |      |
|-------------------------------|----------------|-----------------|---------------|-----------------|---------------------------------|-----------------|---------|------|
| 1                             | LCP            | 2               | 4             | PS              |                                 |                 |         |      |
|                               | UL94V-0, BLACK | 3               | 3             | STAINLESS STEEL | TIN PLATING 1 μm MIN. LUBRICANT |                 |         |      |
| NO.                           | MATERIAL       | FINISH, REMARKS | NO.           | MATERIAL        | FINISH, REMARKS                 |                 |         |      |
| UNITS                         | mm             | SCALE           | 5 : 1         | COUNT           | DESCRIPTION OF REVISIONS        | DESIGNED        | CHECKED | DATE |
| HRS HIROSE ELECTRIC CO., LTD. |                | APPROVED        | AD. SUZUKI    | 10.08.07        | DRAWING NO.                     | E0C3-127028-00  |         |      |
|                               |                | CHECKED         | KN. ICHIKAWA  | 10.08.07        | PART                            | ZX3600-B-10P    |         |      |
|                               |                | DESIGNED        | AH. KODAMA    | 10.08.06        | NO.                             |                 |         |      |
|                               |                | DRAWN           | TS. SAKAIZAWA | 08.06.15        | CODE                            | CL242-0500-1-00 |         |      |

