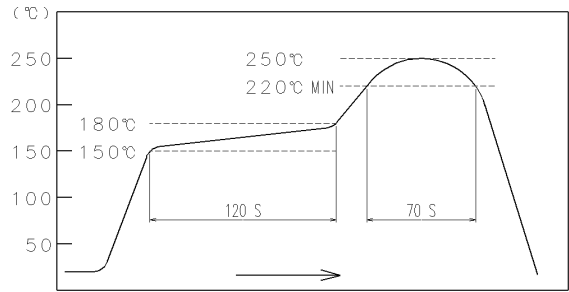


| | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------|------------|
| APPLICABLE STANDARD | | USB2.0 SPECIFICATION AND MICRO-USB CABLE AND CONNECTORS SPECIFICATION. | | | | | |
| RATING | OPERATING TEMPERATURE RANGE | -30 °C TO +85°C | | STORAGE TEMPERATURE RANGE | -30°C TO +85°C | | |
| | VOLTAGE | 30V AC | | OPERATING HUMIDITY RANGE | — % TO — % | | |
| | CURRENT | SIGNAL ONLY | 1 A / pin | APPLICABLE CABLE | OUTER DIAMETER OF CABLE: φ3.4 | | |
| | | POWER APPLY | 1.8A / pin (PIN No.1, No.5) 0.5 A / pin (PIN No.2 TO 4) | | | | |
| SPECIFICATIONS | | | | | | | |
| ITEM | | TEST METHOD | | REQUIREMENTS | | QT | AT |
| CONSTRUCTION | | | | | | | |
| GENERAL EXAMINATION | | VISUALLY AND BY MEASURING INSTRUMENT. | | ACCORDING TO DRAWING. | | X | X |
| MARKING | | CONFIRMED VISUALLY. | | | | X | X |
| ELECTRICAL CHARACTERISTICS | | | | | | | |
| CONTACT RESISTANCE | | 100 mA (DC OR 1000 Hz). | | 30 mΩ MAX. | | X | X |
| INSULATION RESISTANCE | | 500 V DC. | | 100 MΩ MIN. | | X | X |
| VOLTAGE PROOF | | 100 V AC FOR 1 min. | | NO FLASHOVER OR BREAKDOWN. | | X | X |
| MECHANICAL CHARACTERISTICS | | | | | | | |
| INSERTION AND WITHDRAWAL FORCES | | A MAXIMUM RATE OF 12.5 mm/min. MEASURED BY APPLICABLE CONNECTOR. | | INSERTION FORCE 35 N MAX. WITHDRAWAL FORCE 8 N MIN. | | X | — |
| MECHANICAL OPERATION | | 10000 TIMES INSERTIONS AND EXTRACTATIONS. MATING SPEED - MECHANICALLY OPERATED: 500 CYCLES / h - MANUALLY OPERATED: 200 CYCLES / h | | ① CONTACT RESISTANCE: NO INCREASE OF MORE THAN 10 mΩ FROM INITIAL VALUE. ② INSERTION FORCE 35 N MAX. WITHDRAWAL FORCE 8 N MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | | X | — |
| VIBRATION | | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS, TOTAL 6 h. | | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | | X | — |
| RADOM VIBRATION | | FREQUENCY 50 TO 2000 Hz, AT 15 min, FOR 3 DIRECTIONS. | | | | X | — |
| SHOCK | | 490 m/s ² DURATIONS OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS, TOTAL 18 TIMES. | | | | X | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | | | |
| THERMAL SHOCK | | TEMPERATURE -55 → 15 TO 35 → 85 → 15 TO 35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min. UNDER 10 CYCLES. (MATING APPLICABLE CONNECTOR) | | ① CONTACT RESISTANCE: 70 mΩ MAX. ② INSULATION RESISTANCE: 10 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | | X | — |
| HUMIDITY LIFE | | TEMPERATURE -10 TO 65 °C, HUMIDITY 90 TO 98 %, UNDER 7 CYCLES (168h). (MATING APPLICABLE CONNECTOR) | | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | X | — |
| DRY HEAT | | EXPOSED AT +85±2 °C, 96 h. (MATING APPLICABLE CONNECTOR) | | | | X | — |
| COLD | | EXPOSED AT -40±2 °C, 96 h. (MATING APPLICABLE CONNECTOR) | | | | X | — |
| CORROSION SALT MIST | | EXPOSED IN 5 % SALT WATER, 35 °C FOR 48 h. (LEFT UNDER UNMATED CONDITION) | | NO HEAVY CORROSION. | | X | — |
| | | | | | | | |
| | COUNT | DESCRIPTION OF REVISIONS | | DESIGNED | | CHECKED | DATE |
| △ | 1 | DIS-E-00000490 | | TS. ITO | | NM. NISHIMATSU | 16. 03. 02 |
| REMARK | | | | APPROVED | NM. NISHIMATSU | 15. 10. 27 | |
| 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 | 15. 10. 27 | |
| Unless otherwise specified, refer to USB2.0, EIA364 or IEC 60512. | | | | DESIGNED | TS. ITO | 15. 10. 27 | |
| | | | | DRAWN | AK. AKIYAMA | 15. 10. 27 | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | | DRAWING NO. | | ELC-125961-31-00 | |
| HRS | SPECIFICATION SHEET | | | PART NO. | ZX64-B-5S-UNIT (31) | | |
| | HIROSE ELECTRIC CO., LTD. | | | CODE NO. | CL242-0009-3-31 | | |
| | | | | | △ | 1/2 | |

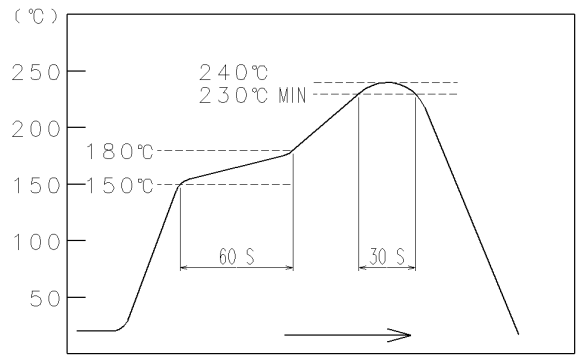
| SPECIFICATIONS | | | | |
|------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------|----|----|
| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
| RESISTANCE TO SOLDERING HEAT | A PROFILE IS SHOWN IN FIG-1, UNDER 2 CYCLE. | NO DEFORMATION OR SIGNIFICANT LOOSENESS OF CONTACTS. | X | — |
| SOLDERBILITY | SOLDERING POINT IMMERSSED IN BATH OF 255±5 °C, 5 sec. (USING TYPE R FLAX) | SOLDER SHALL COVER MINIMUM OF 95 % OF THE SURFACE BEING IMMERSSED. | X | — |



FIG-1

RESISTANCE OF SOLDERING HEAT (TEMPERATURE AT TOP SURFACE OF CONNECTOR)



RECOMMENDED PROFILE REFERS TO FIG-2 (TEMPERATURE AT SMT LEAD)
FIG-2 RECOMMENDED REFLOW PROFILE TEMPERATURE



| | | | | | | |
|-------------------------------------------------------------------------------------|---------------------------|-------------|---------------------|------------------|---------------------------------------------------------------------------------------|-----|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. | | ELC-125961-31-00 | | |
|  | SPECIFICATION SHEET | PART NO. | ZX64-B-5S-UNIT (31) | | | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO | CL242-0009-3-31 | |  | 2/2 |