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| APPLICABLE STANDARD | | USB2.0 SPECIFICATION AND MICRO-USB CABLES AND CONNECTORS SPECIFICATION. | | | |
|--|---|---|--|-------------------|----------------------------|
| RATING | OPERATING TEMPERATURE RANGE | -30°C TO +85°C | STORAGE TEMPERATURE RANGE | -30°C TO +60°C | |
| | VOLTAGE | AC 30V | CURRENT | SIGNAL ONLY | 1.0 A/pin |
| | | | | POWER APPLY | 1.8 A/pin (PIN No.1, No.5) |
| | | | | | 0.5 A/pin (PIN No.2-No.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. | | 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 | - |
| 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 EXTRACTIONS. 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 2h (6 HOURS IN TOTAL) FOR 3 AXIAL DIRECTIONS. | | 1) NO ELECTRICAL DISCONTINUITY OF 1μs. 2) NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | - |
| RANDOM VIBRATION | FREQUENCY 50 TO 2000 Hz AT 15 min (45 MINUTES IN TOTAL) FOR 3 AXIAL DIRECTIONS. | | | X | - |
| SHOCK | ACCELERATION 490 m/s ² , DURATION OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS.(18 TIMES IN TOTAL) | | | X | - |
| ENVIRONMENTAL CHARACTERISTICS | | | | | |
| THERMAL SHOCK | TEMP -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 ~ 65 °C, HUMIDITY 90 TO 98 % UNDER 7 CYCLES (168 h) (MATING APPLICABLE CONNECTOR) | | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | - |
| DRY HEAT | EXPOSED AT 85±2 °C, 96 h. (MATING APPLICABLE CONNECTOR) | | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | - |
| COLD | EXPOSED AT -40±2 °C, 96 h. (MATING APPLICABLE CONNECTOR) | | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | - |
| CORROSION SALT MIST | EXPOSED AT 5 % SALT WATER, 35 °C, FOR 48h. (LEFT UNDER UNMATED CONDITION) | | NO HEAVY CORROSION OF CONTACTS. | X | - |
| SOLDERABILITY | SOLDERING POINT IMMERSED IN SOLDER BATH OF 255±5°C, 5 sec. (USING TYPE R FLAX) | | SOLDER SHALL COVER MINIMUM OF 95% OF THE SURFACE BEING IMMERSED. | X | - |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
| | | | | | |
| 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. Unless otherwise specified, refer to USB2.0, EIA364 or IEC 60512. | | | CHECKED | KN. ICHIKAWA | 15. 10. 27 |
| | | | DESIGNED | TS. ITO | 15. 10. 27 |
| | | | DRAWN | AK. AKIYAMA | 15. 10. 27 |
| | | | Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | |
| | SPECIFICATION SHEET | | PART NO. | ZX62MD1-B-5P (31) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL242-0041-6-31 | 1/2 |

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SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|------------------------------|--|--|----|----|
| RESISTANCE TO SOLDERING HEAT | A PROFILE IS SHOWN IN FIG-1, UNDER 2 CYCLES. | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | - |

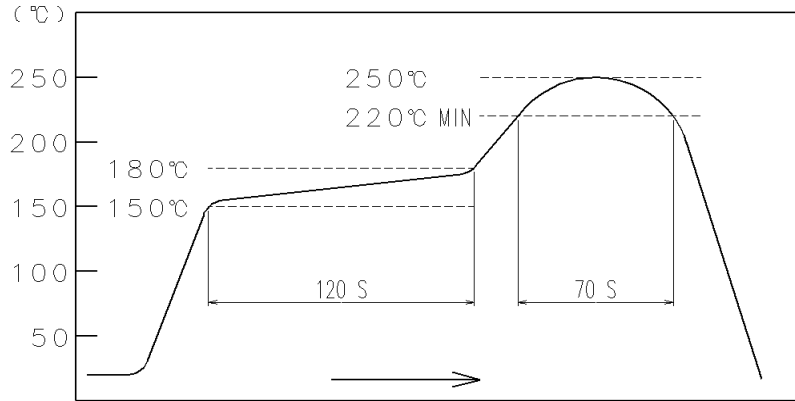


FIG - 1 RESISTANCE TO SOLDERING HEAT
 (TEMPERATURE AT TOP SURFACE OF CONNECTOR)

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

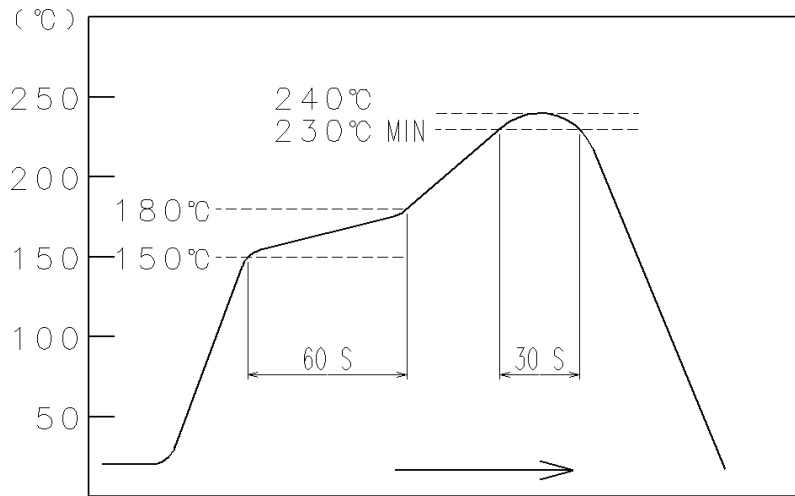


FIG - 2 RECOMMENDED REFLOW PROFILE TEMPERATURE

| | | | |
|--|---------------------------|------------------------------|-------------------|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. ELC-126514-31-00 | |
| HRS | SPECIFICATION SHEET | PART NO. | ZX62MD1-B-5P (31) |
| | HIROSE ELECTRIC CO., LTD. | CODE NO | CL242-0041-6-31 |
| | | | △ 2/2 |