

# Reliability Report

Isahaya Electronics Corporation  
Quality Assurance Department

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Doc. No. IRC-RT9H321C-E-B

## 1. Reliability Test Results

| Group | Test Items                         | Test Conditions   | Test Quantity | Failure Quantity | Remarks |
|-------|------------------------------------|---|---------------|------------------|---------|
| 1     | Solderability                      | Solder Temperature 230°C<br>Immersion Time 5sec<br>Using rosin-type flux                | 45            | 0                |         |
| 2     | Resistance to solder heat          | Solder Temperature 260°C<br>Immersion Time 10sec<br>Immersing whole device              | 22            | 0                |         |
| 3     | Temperature Cycle                  | Ta=Tstg(min)~Tstg(max)<br>30min each cycle<br>100 cycles                                | 45            | 0                |         |
| 4     | Humidity Resistance                | Ta=85°C, 85%R.H.<br>1000hr  | 45            | 0                |         |
| 5     | Temperature Humidity Bias          | Ta=85°C, 85%R.H.<br>VKA=2.5V, IK=40mA<br>1000hr   | 45            | 0                |         |
| 6     | High Temperature Bias              | Ta=85°C<br>VKA=2.5V, IK=40mA<br>1000hr  | 45            | 0                |         |
| 7     | High Temperature Storage           | Ta=Tstg(max)<br>1000hr  | 45            | 0                |         |
| 8     | Low Temperature Storage            | Ta=Tstg(min)<br>1000hr  | 45            | 0                |         |
| 9     | Pressure Cooker Test               | 121°C, 100%RH, 2 × 10 <sup>5</sup> Pa<br>96hr   | 45            | 0                |         |
| 10    | Electrostatic Breakdown Resistance | C=200pF, 0Ω Reference: GND pin<br>Applied Voltage ±150V<br>Applied once on each pin     | 11            | 0                |         |
|       |                                    | C=100pF, 1.5kΩ Reference: GND pin<br>Applied Voltage ±1000V<br>Applied once on each pin | 11            | 0                |         |

## 2. Failure Criteria

| Group | Failure Criteria  |
|-------|---|
| 1     | Less than 95% of the immersed part is covered with solder.  |
| 2~10  | Which does not meet the electrical characteristics.<br>Whose change rate exceeds ±20%.<br>An apparent change in appearance is observed. |

Measurement conditions are based on the corresponding specification sheet.

For further information of the contents above, please contact our Business Department.