

Environmental Test Procedure and Criteria

Rev. 2.0 9/2008

All products are subject to the following test procedure and requirement.

This document supersedes any all the previous document related to the environmental test requirement.

The device should satisfy the electrical characteristics specified in electrical characteristic section in the data sheet after each of the specified test.

1. Normal Environmental Test Condition

Temperature range	25±5 °C
Relative Humidity range	55~75%RH
Operating Temperature range	-40 °C ~+85 °C
Storage Temperature range	-40 °C ~+85 °C

2. Vibration Resist

The device should satisfy the specified electrical characteristics after it is applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X, Y and Z directions.

3. Drop Shock

The device should satisfy the specified electrical characteristics after dropping onto a solid hard wooden surface in free-fall from the height of 100cm for 3 times on each face of the three dimensions of the device.

4. Solder Heat Proof

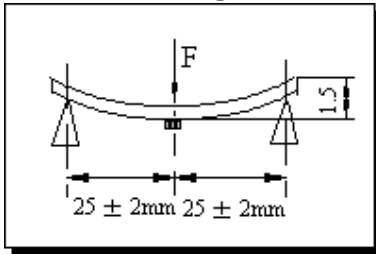
The device should be satisfied the specified electrical characteristics after pre-heating at 120°C ~150°C for 120 seconds and dipping in soldering at 255°C +10°C for 5±0.5 seconds , or electric iron 300°C -10°C for 3±0.5 seconds without damage

5. Tensile Strength of Terminal

The device should not be broken after tensile force of 1.0kg is slowly applied to pull a lead pin of the fixed device in the lead axis direction for 10±1 seconds.

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6. Bending Resist Test



Weld the product to the center part of the PCB with the thickness 1.6 ± 0.2 mm as the illustration shows, and keep exerting force arrow-ward on it at speed of 1mm/S, and hold for 5 ± 1 S at the position of 1.5mm bending distance. Any peeling off of the product metal coating should not be detected.

7. Moisture Proof

The device should satisfy the specified electrical characteristics after it is exposed to the temperature $60 \pm 2^\circ\text{C}$ and the relative humidity 90~95% RH for 96 hours and 2 hours recovery time under normal condition.

8. High Temperature Endurance

The device should satisfy the specified electrical characteristics after it is exposed to temperature $85 \pm 5^\circ\text{C}$ for 96 ± 2 hours and 2 hours recovery time under normal temperature.

9. Low Temperature Endurance

The device should satisfy the specified electrical characteristics after it is exposed to the temperature $-40^\circ\text{C} \pm 5^\circ\text{C}$ for 96 ± 2 hours and 2 hours recovery time under normal temperature.

10. Temperature Cycle Test

The device should satisfy the specified electrical characteristics after it is exposed to the low temperature -40°C and high temperature $+85^\circ\text{C}$ cycle for 30 ± 2 min each cycle by 5 cycles and 2 hours recovery time under normal temperature.