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STANDARD

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# JIS C 60068-2-30 : 2011

(IEC 60068-2-30 : 2005)

(RCJ/JSA)

## **Environmental testing—Part 2-30: Tests—Test Db: Damp heat, cyclic (12 h + 12 h cycle)**

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## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Reliability Center for Electronic Components of Japan (RCJ)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS C 60068-2-30:1988** has been replaced with this Standard.

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Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public or utility model right. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public or utility model right.

**JIS C 60068** consists of the following 58 parts;

JIS C 60068-1 *General and guidance*

JIS C 60068-2-1 *Part 2-1: Tests—Test A: Cold*

JIS C 60068-2-2 *Part 2-2: Tests—Test B: Dry heat*

JIS C 60068-2-6 *Part 2-6: Tests—Test Fc: Vibration (sinusoidal)*

JIS C 60068-2-7 *Test Ga and guidance: Acceleration, steady state*

JIS C 60068-2-11 *Test Ka: Salt mist*

JIS C 60068-2-13 *Test M: Low air pressure*

JIS C 60068-2-14 *Part 2-14: Tests—Test N: Change of temperature*

JIS C 60068-2-17 *Test Q: Sealing*

JIS C 60068-2-18 *Part 2-18: Tests—Test R and guidance: Water*

JIS C 60068-2-20 *Part 2-20: Tests—Test T: Test method for solderability and resistance to soldering heat of devices with leads*

JIS C 60068-2-21 *Part 2-21: Tests—Test U: Robustness of termination and integral mounting devices*

JIS C 60068-2-27 *Part 2-27: Tests—Test Ea: Shock*

JIS C 60068-2-30 *Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

JIS C 60068-2-31 *Test Ec: Drop and topple, primarily for equipment-type specimens*

JIS C 60068-2-32 *Test Ed: Free fall*

JIS C 60068-2-38 *Test Z/AD: Composite temperature/humidity cyclic test*

JIS C 60068-2-39 *Test Z/AMD: Combined sequential cold, low air pressure, and damp heat test*

JIS C 60068-2-40 *Test Z/AM: Combined cold/low air pressure tests*

JIS C 60068-2-41 *Test Z/BM: Combined dry heat/low air pressure tests*

- JIS C 60068-2-42 *Test Kc: Sulphur dioxide test for contacts and connections*
- JIS C 60068-2-43 *Test Kd: Hydrogen sulphide test for contacts and connections*
- JIS C 60068-2-45 *Testing procedures of electronic and electrical resistance to solvents (immersion in cleaning solvents)*
- JIS C 60068-2-46 *Guidance to Test Kd: Hydrogen sulphide test for contacts and connections*
- JIS C 60068-2-47 *Part 2-47: Tests—Mounting of specimens for vibration, impact and similar dynamic tests*
- JIS C 60068-2-48 *Guidance on the application of the tests of JIS environmental testing series to simulate the effects of storage*
- JIS C 60068-2-49 *Guidance to Test Kc: Sulphur dioxide test for contacts and connections*
- JIS C 60068-2-50 *Tests Z/AFc: Combined cold/vibration (sinusoidal) tests for both heat-dissipating and non-heat-dissipating specimens*
- JIS C 60068-2-51 *Tests Z/BFc: Combined dry heat/vibration (sinusoidal) tests for both heat-dissipating and non-heat-dissipating specimens*
- JIS C 60068-2-52 *Test Kb: Salt mist, cyclic (sodium, chloride solution)*
- JIS C 60068-2-53 *Guidance to tests Z/AFc and Z/BFc: Combined temperature (cold and dry heat) and vibration (sinusoidal) tests*
- JIS C 60068-2-54 *Test Ta: Solderability testing of electronic components by the wetting balance method*
- JIS C 60068-2-57 *Time-history vibration test method*
- JIS C 60068-2-58 *Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*
- JIS C 60068-2-59 *Test Fe: Vibration—Sine-beat method*
- JIS C 60068-2-60 *Test Ke: Flowing mixed gas corrosion test*
- JIS C 60068-2-61 *Test Z/ABDM: Climatic sequence*
- JIS C 60068-2-64 *Test Fh: Vibration, broadband random and guidance*
- JIS C 60068-2-65 *Part 2-65: Vibration, acoustically induced*
- JIS C 60068-2-66 *Test Cx: Damp heat, steady state (unsaturated pressurized vapour)*
- JIS C 60068-2-67 *Test Cy: Damp heat, steady state, accelerated test primarily intended for components*
- JIS C 60068-2-68 *Dust and sand test*
- JIS C 60068-2-69 *Part 2-69: Tests—Test Te: Solderability testing of electronic components for surface mounting devices (SMD) by the wetting balance method*
- JIS C 60068-2-70 *Test Xb: Abrasion of markings and letterings caused by rubbing of fingers and hands*
- JIS C 60068-2-75 *Part 2-75: Tests—Test Eh: Hammer tests*

- JIS C 60068-2-77 *Part 2-77: Tests—Test 77: Body strength and impact shock*
- JIS C 60068-2-78 *Part 2-78: Tests—Test Cab: Damp heat, steady state*
- JIS C 60068-2-80 *Part 2-80: Tests—Test Fi: Vibration—Mixed mode*
- JIS C 60068-2-81 *Part 2-81: Shock—Shock response spectrum synthesis*
- JIS C 60068-2-82 *Part 2-82: Tests—Test XW1: Whisker test methods for electronic and electric components*
- JIS C 60068-3-1 *Background information, Section One—Cold and dry heat tests*
- JIS C 60068-3-2 *Background information Section Two—Combined temperature / low air pressure tests*
- JIS C 60068-3-3 *Guidance Seismic test method for equipments*
- JIS C 60068-3-4 *Part 3-4: Supporting documentation and guidance—Damp heat tests*
- JIS C 60068-3-5 *Part 3-5: Supporting documentation and guidance—Confirmation of the performance of temperature chambers*
- JIS C 60068-3-6 *Part 3-6: Supporting documentation and guidance—Confirmation of the performance of temperature / humidity chambers*
- JIS C 60068-3-7 *Part 3-7: Supporting documentation and guidance—Measurements in temperature chambers for tests A and B (with load)*
- JIS C 60068-3-8 *Part 3-8: Supporting documentation and guidance—Selecting amongst vibration tests*

# Environmental testing—Part 2-30: Tests—Test Db: Damp heat, cyclic (12 h + 12 h cycle)

## Introduction

This Japanese Industrial Standard has been prepared based on the third edition of IEC 60068-2-30 published in 2005 without modifying the technical contents.

The portions with dotted underlines are the matters not given in the corresponding International Standard.

## 1 Scope

This Standard determines the suitability of components, equipment or other articles for use, transportation and storage under conditions of high humidity—combined with cyclic temperature changes and, in general, producing condensation on the surface of the specimen.

For small, low mass specimens, it may be difficult to produce condensation on the surface of the specimen using this procedure; users should consider the use of an alternative procedure such as that given to JIS C 60068-2-38.

NOTE : The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

IEC 60068-2-30:2005 *Environmental testing—Part 2-30: Tests—Test Db: Damp heat, cyclic (12 h + 12 h cycle)* (IDT)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and JIS are IDT (identical), MOD (modified), and NEQ (not equivalent) according to ISO/IEC Guide 21-1.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions (including amendments) indicated below shall be applied.

JIS C 60068-1 *Environmental testing Part 1: General and guidance*

NOTE : Corresponding International Standard: IEC 60068-1:1988 *Environmental testing—Part 1: General and guidance* (IDT)

JIS C 60068-2-38 *Basic environmental testing procedures Part 2: Tests Test Z/AD: Composite temperature/humidity cyclic test*

NOTE : Corresponding International Standard: IEC 60068-2-38 *Environmental testing—Part 2-38: Tests—Test Z/AD: Composite temperature/humidity cyclic test* (IDT)

JIS C 60068-3-6 *Environmental testing—Part 3-6: Supporting documentation and guidance—Confirmation of the performance of temperature/humidity chambers*