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GB/T 2423.52-2003 / IEC 60068-2-77:1999

**Environmental testing for electric and electronic products -
Part 2: Test methods - Test 77: Body strength and impact
shock**

电工电子产品环境试验 第2部分：试验方法 试验77：结构强度
与撞击

(IEC 60068-2-77:1999, Environmental testing – Part 2-77: Tests 77 - Body
strength and impact shock, IDT)

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Foreword

This Part is a part of GB/T 2423 “Environmental testing for electric and electronic products - Part 2: Test methods”. It identically adopts IEC 60068-2-77:1999 “Environmental testing - Part 2-77: Tests 77 - Body strength and impact shock” (English version).

This Part is consistent with all paragraphs and figures of IEC 60068-2-77:1997. The numbering of chapters is also as consistent as possible under the premise of conforming to GB/T 20000.2-2001. According to Chinese habits, it is slightly adapted in terms of the language of narration and expression. For ease of use, the following editorial changes have been made to this Part:

- a) changed “this International Standard” to “this Part”;
- b) used decimal point "." to replace comma "," that is used as a decimal point;
- c) deleted the foreword of the international standard.

Annex A of this Part is informative.

This Part was proposed by Ministry of Information Industry.

This Part shall be under the jurisdiction of Subcommittee on Machinery of National Technical Committee on Environmental Testing of Electrical and Electronic Products of Standardization Administration of China.

The drafting organizations of this Part: The Fifth Electronic Research Institute of the Ministry of Information Industry.

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Environmental testing for electric and electronic products -

Part 2: Test methods - Test 77: Body strength and impact shock

1 Scope

This part of GB/T 2423 provides test methods applicable to surface mounting devices (SMDs) made of glass or sintered materials such as capacitors, resistors and inductors incorporating ferrites. Two test methods exist: body strength and impact shock.

The object of both tests is to evaluate the mechanical stresses applied to SMDs during and after mounting; these tests look at different mechanical stresses. The relevant component specification shall specify which test method or methods are applicable.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of GB/T 2423. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this Part are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies.

IEC 60194:1999, *Terms and definitions for printed circuits*

3 Terms and definitions

For the purposes of this Part of GB/T 2423, the terms and definitions given in IEC 60194 apply.

4 Test methods

4.1 Body strength

This test evaluates the strength of the body of the SMD against external static forces which are applied to them during mounting, in the direction perpendicular to the printed board on which the SMDs are mounted.

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