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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 28162.3-2011

**Packaging of components for automatic handling -- Part 3:
Packaging of surface mount components on continuous tapes**

自动操作元器件的包装 第3部分：表面安装元器件在连续带上的包装

(English Translation)

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Foreword

Automatic operation of the components of the packaging standards from the following components.

- Part 1. Packaging of components with axial leads on continuous tapes (IEC 60286-1.:1997);

- Part 2. Packaging with unidirectional lead elements on continuous tapes (IEC 60286-2.:1997);

- Part 3. Packaging of surface mount components on continuous tapes (IEC 60286-3.:2007);

- Part 4. Adhesive hoppers for electronic components encapsulated in E and G packages (IEC 60286-4.:1997);

- Part 5. Matrix tray (IEC 60286-5.:2003);

Part 6. Packaging of bulk packaging for surface mount components (IEC 60286-6.:2004).

This part is the third part of the packaging standard for automatic operation components.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the translation method equivalent to IEC 60286-3.:2007 "Packaging of automatic operation components Part 3. Surface mounting elements Device in continuous

tape "(English version).

For ease of use, the following editorial changes have been made to IEC 60286-3.:2007 in this part.

--- remove IEC preface;

--- increase the number in Note 2;

--- the number ", " to "." this part is made by the Ministry of Industry and Information Technology of the People's Republic of China.

This part is headed by the National Standardization Technical Committee for Electronic Components and Capacitors (SAC/TC165).

This part of the drafting unit. China Electronic Technology Standardization Institute (CESI).

This part of the main drafters. Peng Wei, Zhang Qiu.

Automatic operation of the packaging components Part 3. surface mount components in a continuous belt on the packaging

1.1 Scope

This part of GB/T 28162 is suitable for beltless packaging of leadless or leaded electronic components connected to the circuit. This part Including only the size of the tape that is critical for component packaging.

This part also covers the requirements for packaging of single-chip products, including bare chips and bumped chips (flip chip).

1.2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

IEC 60191-2. 1966 Mechanical standards for semiconductor devices - Part 2. Dimensions (Mechanicalstandardizationofsemi-conductordevices-Part 2. Dimensions) Electrostatics - Part 5-1. Antistatic requirements for electronic components - Electrostatics -Part 5-1.

Protectionofelectronicdevicesfromelectrostaticphenomena-Generalrequirements Electrostatics - Part 5-2. Guidelines for the use of antistatic agents for electronic components (IEC 61340-5-2.:1999) Part 5-2.

Protectionofelectronicdevicesfromelectrostaticphenomena-Userguide) IEC 62258-3.:2005 Semiconductor chip products - Part 3. Recommended methods for automatic handling, packaging and storage (Semicon-ductordieproducts-Part 3.

Recommendationsforgoodpracticeinhandling, packingandstorage) ISO/IEC 16388.:1999 Information technology - Automatic identification and data acquisition techniques Bar code

Symbol specification code 39

(Information technology - Automatic identification and data capture techniques - Barcode symbols - Specifications - code 39) ISO 11469:2000 Identification and marking of plastic and plastic products (Plastics - Generic identification and Marking of plastic products)

2 Terms and definitions

Using the following terms and definitions.

Packaging

In the automatic assembly, operation and transmission process used to fill, protect the product arrangement of the packaging material should be any natural materials.

3 Standard structure

The various packaging types are classified as follows.

Type I --- Punch-type carrier tape with upper and lower cover (8mm and 12mm)