

ICS 29.045
CCS H83



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

GB/T 11072-2009

Replacing GB/T 11072-1989

Indium antimonide polycrystal, single crystals and as-cut slices

锑化铟多晶、单晶及切割片

Issued on: October 30, 2009

Implemented on: June 1, 2010

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Product Categories
- 3.1 Conductivity type, size
- 3.1.3 Cutting sheet

Foreword

This standard replaces GB/T 11072-1989 "InSb polycrystalline, monocrystalline and cut pieces." This standard compared with GB/T 11072-1989, the main changes are as follows:

- Original standard diameter of 10mm ~ 50mm all changed 10mm ~ 200mm;
- In the original standard based on the increase in diameter > 50mm, thickness not less than 1200μm, thickness deviation ± 40μm;
- Original standard dislocation density level ≥ 30mm ~ 50mm diameter all changed 1,2,3 ≥ 30mm ~ 200mm;
- In the original standard based on the increase of the diameter of 100mm, 150mm, cutting disc diameter, 200mm length and the reference surface deviation;
- Original standard Appendix A removed, increment the reference standard GB/T 11297;
- Added "orders (or contract) Contents" chapter. This standard by the National Standardization Technical Committee of semiconductor equipment and materials proposed. This standard by the National Standardization Technical Committee materials and equipment at the Technical Committee of semiconductor material. This standard was drafted. Emei Semiconductor Material Factory. The main drafters of this standard. Wang Yan, Helan Ying, Zhang Mei. This standard replaces the standards previously issued as follows:
- GB/T 11072-1989. InSb polycrystalline, monocrystalline and cutting sheet

1 Scope

GB/T 11072-2009 is the Chinese national standard on indium antimonide polycrystal, single crystals and as-cut slices, in the field of electrical engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most

foreign buyers meet it. It was issued on 30 October 2009 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2010. Classification: ICS 29.045, CCS H83. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

1.1 standard specifies the indium antimonide polycrystal, single crystal and single crystal cutting sheet product classification, technical requirements and test methods.

1.2 This standard applies to zone melting with antimony, indium antimonide and polycrystalline Prepared for making infrared detectors and magnetic components prepared by Czochralski etc. Indium polycrystalline, monocrystalline and cutting sheet.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 4326 extrinsic semiconductor crystal Hall mobility and Hall coefficient measurements

GB/T 8759 to the compound semiconductor single crystal X-ray diffraction measurement method

GB/T 11297 indium antimonide single crystal dislocation etch pits in the display and measurement methods

3.1 Conductivity type, size

3.1.1 polycrystalline Polycrystalline conductivity type is n-type, according to the carrier mobility divided into three levels.

3.1.2 Single Crystal Indium antimonide single conductive type divided by n-type and p-type dopant to the carrier concentration and mobility classification, according to the diameter of the dislocation density Divided into three levels.

3.1.3 Cutting sheet

3.1.2 Classification and grading according to a thickness of not less than 500μm. Grade 3.2

3.2.1 InSb polycrystalline and single crystal grade is expressed as. InSb - 1 2 3 1

--- represented by PInSb InSb polycrystalline, MInSb represents indium antimonide single

crystal; 2

--- chemical element symbols dopant; 3

--- Arabic numerals product grades. If the product is not doped or graded, the corresponding portion may be omitted.

3.2.2 indium antimonide single cut sheet grade is expressed as.

chinastandards.org - PREVIEW