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

GB/T 13973-2012

Replacing GB/T 13974-1992

**General specification test methods for semiconductor device
curve tracers**

半导体管特性图示仪通用规范

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Foreword

This standard rule according to GB/T 1.1-2009 given draft. This standard replaces GB/T 13973-1992 "semiconductor curve tracers general technical conditions", GB/T 13974-1992 "Semiconductor Pipe curve tracers test methods. " This standard incorporate and adjust the GB/T 13973-1992, GB/T 13974-1992 applicable content. In each of the environmental adaptability The test project in accordance with the relevant provisions of GB/T 6587-2012 "General specification for electronic measuring instruments" in the main changes are as follows:

--- Added "Terms and definitions" (see Chapter 3);

--- Increasing the "baseline conditions of work" (see 5.1);

--- Added "Test conditions" (see 5.2);

--- Added "big collector current deflection coefficient" (see 5.7.2.1.3);

--- Added "precision resistors reference value" (see Table 3);

--- Added "current offset ladder and step voltage offset" (see 5.7.4.6, 5.7.4.7). The standard proposed by the Ministry of Industry and Information Technology of the People's Republic of China. This standard by the National Standardization Technical Committee Electronic Measuring Instruments (SAC/TC153) centralized. This standard was drafted. New Equipment Co., Ltd. Shanghai. The main drafters of this standard. Wu Tsung Su, Xu Zhengjiang, Zhupei Hua, Xu Changfeng, see Yu Yi. This standard replaces the standards previously issued as follows:

--- GB/T 13973-1992;

--- GB/T 13974-1992. Semiconductor curve tracers General specification

1 Scope

GB/T 13973-2012 is the Chinese national standard on general specification test methods for semiconductor device curve tracers, in the field of metrology and measurement. 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 31 December 2012 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 2013. Classification: ICS 17.220, CCS L85. 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.

This standard specifies the semiconductor curve tracers (hereinafter referred to as tracers) terms and definitions, requirements, test methods, quality inspection regulations Then, labeling, packaging, transportation, storage and so on. Semiconductor curve tracers This standard applies to testing semiconductor characteristic and DC parameters, but also for having an insertion unit Or semiconductor curve tracers appurtenances. Tracer product standards should meet the requirements of this standard, as tracers of product standards beyond the requirements of this standard should be based on the product label Quasi prevail.

2 Normative references

The following documents for the application of this document is essential For dated references, only the dated edition applies to this article Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 4793.1-2007 measurement, control and laboratory use safety requirements for electrical equipment - Part 1. General requirements

GB 4824 industrial, scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement

GB/T 6587-2012 General specification for electronic measuring instruments

GB/T 6592-2010 Electrical and electronic measurement equipment - Expression of performance

GB/T 9969 General Industrial Product Manual

GB/T 17626.2 electromagnetic compatibility test and measurement techniques - Electrostatic discharge immunity test

GB/T 17626.3 electromagnetic compatibility test and measurement technology RFEMS test

GB/T 17626.4 Electromagnetic compatibility Testing and measurement techniques -
Electrical fast transient burst immunity test

GB/T 17626.6 electromagnetic compatibility test and measurement technology RF field
induction of immunity to conducted disturbances Part

3 Terms and Definitions

GB 4793.1-2007 define the following terms and definitions apply to this document.

3.1 General

3.1.1 Semiconductor curve tracers semiconductor devices curve tracer One kind can be
observed and tested semiconductor characteristic and DC parameters of the instrument on
the CRT, CRT, LCD and other display.

3.1.2 Host mainframe Plug-tracer remove some portion other than the insertion unit, which
usually consists of high and low voltage power supply, and the other portion of the display
circuit.

3.1.3 Plug-in unit plug-in unit Plug-tracers can be replaced parts. Plug it in, the host, to
complete certain of its special features, such as, Y (or X) Single deflection