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

GB/T 9546.8-2015

Replacing GB/T 9546-1995

**Fixed resistors for use in electronic equipment -- Part 8:
Sectional specification -- Fixed surface mount resistors**

电子设备用固定电阻器 第8部分：分规范 表面安装固定电阻器

(English Translation)

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Foreword

"Fixed device for electronic equipment," the series of national standards are divided into the following sections.

- Part 1. General specification (GB/T 5729-2003/IEC 60115-1.:2001);

Part 2. Sectional specification for low power non - wirewound fixed resistors (GB/T 5730-1985/IEC 60115-2. 1982);

- Part 2. Blank detail specification Low power non-wirewound fixed resistor rating level E (GB/T 5731-1985 /IEC 60115-2-1. 1982);

Part 4. Sectional specification for power type fixed resistors (GB/T 5732-1985/IEC 60115-4. 1982);

- Part 4. Blank detail specification Power type fixed resistor rating level E (GB/T 5733-1985/IEC 60115-4-1. 1983);

- Part 4. Blank detail specification Power type fixed resistor rating level F (GB/T 15885-1995/IEC 60115-4-2.:1992);

- Part 4. Blank detail specification - Fixed resistors with radiators rated level H (GB/T 17035-1997 /IEC 60115-4-3.:1993);

- Part 5. Sectional specification of precision fixed resistors (GB/T 5734-1985/IEC 60115-5. 1982);

- Part 5. Blank detail specification Precision fixed resistor rating level E (GB/T 5735-1985/IEC 60115-5-1. 1983);

- Part 5. Blank detail specification Precision fixed resistor rating level F (GB/T 15884-1995/IEC 60115-5-2.:1992);

- Part 6. Sectional specification Fixed resistors for individual resistors (GB/T 7338-1996/IEC 60115-6. 1983);
- Part 6. Blank detail specification Resistance and power dissipation same, each resistor can be measured separately for fixed resistor network rating E (GB/T 7339-1987/IEC 60115-6-1. 1983);
- Part 6. Blank detail specification Resistance and power dissipation are different, each resistor can be individually measured for fixed resistor network rating E (GB/T 7340-1987/IEC 60115-6-2. 1983);
- Part 7. Sectional specification of the resistors can not be individually measured by a fixed resistor network (GB/T 12276-1990/IEC 60115-7. 1984);
- Part 7. Blank detail specification Resistors can not be individually measured for fixed resistance Network rating level E (GB/T 12277-1990/IEC 60115-7-1. 1984);
- Part 8-1. Blank detail specification G-rated surface mount fixed resistor rating level EZ (GB/T 9546.801-2015).

This part is Part 8 of "Fixed Resistors for Electronic Equipment".

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

This part replaces GB/T 9546-1995 "Fixed resistors for use in electronic equipment - Part 8. Sectional specification for fixed resistors".

This part compared with GB/T 9546-1995, the main changes are as follows.

--- Standard name is replaced by "Fixed resistor for electronic equipment Part 8. Slice type fixed resistor" to "Electronic equipment Fixed resistors - Part 8. Sectional specification - Mounting resistors for surface mounting;

--- 1.5 increase the product classification, the P grade and G grade products were defined;

--- 2.1.2 Variety from six to sixteen;

--- 2.1.3 Preferred climatic categories increased by -10 ° C, 175 ° C and 200 ° C;

Table 2 Temperature coefficient increase $\pm 1000 \times 10^{-6}/K$, $\pm 5 \times 10^{-6}/K$, $\pm 2 \times 10^{-6}/K$ and $\pm 1 \times 10^{-6}/K$;

- Table 3b stability levels were removed by 3%, 0.05% and 0.025%;

--- 2.2.2 Allowable deviation of nominal resistance $\pm 20\%$, $\pm 0.05\%$, $\pm 0.02\%$, $\pm 0.01\%$, 0/-30%, 0/-20% and 0/-10%;

--- 2.2.3 Rated power increases by 0.032W, 0.05W, 0.33W, 0.4W, 0.75W, 3W and 5W;

--- 2.2.4 component limit voltage increase 12.5V, 15V, 25V, 300V, 500V and 1000V;

(2.3.2), solder heat (2.3.3), shear force (2.3.4), periodic pulse overload (2.3.5), electrostatic discharge (2.3.5), etc.

The test has been specified;

--- 3.2 increase the initial manufacturing stage and the definition of the level of EZ definition;

- Added Appendix A "Zero Ohm Resistor (Spanning)", Appendix B, "Letters and Abbreviations" and Appendix C " Technical Differences and Causes of IEC 60115-8.:2009 ".

This part uses the re-drafting method to modify IEC 60115-8.:2009 "Fixed resistors for use in electronic equipment Part 8. Sectional specification Surface mount fixed resistor ".

This section has some technical adjustments compared to IEC 60115-8.:2009, and the corresponding technical differences and their causes are given in Appendix C List.

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 Research Institute, Guangdong Fenghua High-tech Co., Ltd., China Zhenhua Group cloud Electronics Co., Ltd.

This part of the main drafters. Peng Wei, Yang Xiaoping, Zhou Ruishan, Deng Zhaohua.

This part was first published in 1995 and this is the first revision.

Fixed resistors for use in electronic equipment Part 8. Sectional specification - Mounting of fixed resistors

1.1 Scope

This part is suitable for mounting the fixed resistor on the surface of electronic equipment.

These resistors are usually described by model (different geometries) and varieties (different sizes). They are metallized Outlet, mainly directly installed on the circuit board.

1.2 Purpose

The purpose of this section is to specify the priority ratings and characteristics of the surface mount resistors and to select the applicable values from IEC 60115-1.:2008 Quality assessment procedures, test and measurement methods, and gives general performance requirements.

In the detailed specification, the test severity and requirements specified in this part shall be the same or higher performance level as this part.

To reduce performance levels.

1.3 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.

GB/T 2421.1-2008 Environmental test overview and guidance for electrical and electronic products (IEC 60068-1. 1988, IDT) GB/T 2691-2016 Symbols for Resistors and Capacitors (IEC 60062.:2004, IDT) Environmental testing for electric and electronic products - Part 2-20. Test tests T. Weldable elements with lead elements - IEC 60068-2-20.

Tests-TestT-Test2 Testimonials Testimonials Testimonials Testimonials Testimonials
Testimonials Testimonials Testimonials Testimonials Testimonials Testimonials
Testimonials-abilityandresistancetosolderingheatofdeviceswithleads) Environmental testing
for electric and electronic products - Part 2-58. Test Td. Test method and surface of metal
resistance Installation of components for welding heat test method
[Environmentaltesting-Part 2-58. TestsTd. Testmethodsforsolderability,
resistancetodissolutionofmetalizationandtosolderingheatofsurfacemountingdevices (SMD)]
IEC 60115-1.:2008 Fixed resistors for use in electronic equipment - Part 1. General
specification (Fixedresistorsforuseinelec-tronicequipment-Part 1. Genericspecification IEC
61193-2.:2007 Quality assessment systems - Part 2. Selection and use of sampling
schemes for electronic components and their packaging inspection
(Qualityassessmentsystems-Part 2.
Selectionanduseofsamplingplansforinspectionofelectronic componentsandpackages IEC
61340-3-1 Electrostatics Part 3-1. Electrostatic effect simulation method Human body
model (HBM) - Electro-statics-Part 3-1.
Methodsforsimulationofelectrostaticeffects-Humanbodymodel (HBM)
electro-staticdischarge test waveforms) IEC 61760-1.:2006 Surface mount technology - Part
1. Standard method for surface mount component specification [Surfacemounting
technology-Part 1. Standardmethodforthespecificationofsurfacemountingcomponents
(SMDs)]

1.4 Detailed specification should be specified

The detailed specification shall be prepared in accordance with the relevant detailed specifications.

The detailed specification should not prescribe requirements below the general specification, sub-specification or blank detailed specification. When included than the