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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 2691-2016

Replacing GB/T 2691-1994

Marking codes for resistors and capacitors

电阻器和电容器的标志代码

(English Translation)

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Foreword

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

This standard replaces GB/T 2691-1994 "Symbols for Resistors and Capacitors".
Compared with GB/T 2691-1994, the main changes are as follows.

--- increase the code of the capacitor media material;

--- Added "normative reference documents";

- the allowable deviation of the resistance value of the fixed resistor color code is orange is set to ± 0.05%;

--- increase the resistance with three characters and four characters of the code that;

--- ± 3% increase in symmetrical allowable deviation;

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--- increase the resistance temperature coefficient code;

- the date code in the two-character date code that adds the ten-year cycle;

--- four characters early code to add ten years, twenty years of early cycle code;

--- Date code to add a character code;

Removal of GB/T 2691-1994 Appendix A (Reference) Direct Marking.

This standard uses the translation method equivalent to IEC 60062.:2004 "Symbols for Resistors and Capacitors".

For ease of use, the following editorial modifications have been made to IEC 60062.

The footnote of the table is modified according to the national standard.

This standard is proposed by the Ministry of Information Industry of the People's Republic of China.

This standard is nationalized by the National Standardization Technical Committee for Resistance Capacitors (SAC/TC165) for electronic equipment.

The drafting unit of this standard. China Electronic Technology Standardization Institute (CESI).

1 Scope

This standard specifies the symbol code for resistors and capacitors, as well as the index of dielectric materials and electrodes for plastic and paper capacitors.

The code specified in Chapter 3 of this standard gives the color code of the fixed resistor.

This code is used for the E6 ~ E192 series values specified in GB/T 2471-1995 "Resistor and Capacitor Priority Series".

The code specified in Chapter 4 of this standard systematically gives a method of using the letters and numerals to indicate resistance and capacitance.

The code specified in Chapter 5 of this standard systematically gives a method of using a letter mark resistance and capacitance tolerance.

The code specified in Chapter 6 of this standard systematically gives a method of manufacturing diodes and capacitors with letters and numerals.

The code (index) specified in Chapter 7 of this standard gives the code for the media material.

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2 Normative reference documents

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 2471-1995 Number of resistors and capacitors priority (IEC 60063. 1963, IDT) Plastics symbols and acronyms - Part 1. Base polymers and their characteristic properties (ISO 1043-1.

2001, IDT)

GB/T 7408-2005 Data Element and Interchange Format Information Exchange Date and Time Representation (ISO 8601.:2000, IDT)

3 Fixed color code of the resistor

3.1
The two-digit and three-digit valid numbers indicate the resistance of the resistor, the allowable deviation of the resistance and the temperature coefficient (when required) 3.2, 3.3 and 3.4.

3.2
The first ribbon should be close to the end of the resistor, the location and spacing of the ribbon should make it in the code without confusion.

3.3
Any additional code used should not be confused with the code for the tolerance and resistance tolerance.

3.4
Fixed color code for the resistor.

When the temperature coefficient is indicated by the color specified in Table 1, one of the following methods shall be used.

a) for the 6th ribbon and wide bandwidth;

b) for the 6th ribbon, the band for the intermittent belt;

c) spiral band.

For cylindrical resistors, when using a helical band, the tape should be overlapped with the existing resistance and the resistance allows the deviation to represent the entire length of the ribbon the rotation angle of the helical band shall be not less than 270 °.

For other types of resistors, similar methods of color codes should be used in accordance

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with detailed specifications.

The color code of the temperature coefficient is only used with three significant digits.

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