

JIS

JAPANESE INDUSTRIAL STANDARD

**Measuring methods for
small signal diodes**

JIS C 7031^{—1993}

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

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Measuring methods
for small signal diodes

C 7031-1993

1. Scope This Japanese Industrial Standard specifies electrical measuring methods for small signal semiconductor diodes to be used for detection, switching, mixing, etc. in electronic equipment (hereafter referred to as "diodes").

Remarks 1. The following standards are cited in this Standard:

JIS C 0301 Graphical symbols for electrical apparatus


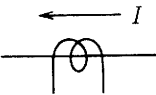
JIS C 1102 Electrical indicating instruments

2. The International Standard corresponding to this Standard is given below.

IEC 747-3 (1985) Semiconductor devices, Discrete devices
Part 3: Signal (including switching) and
regulator diodes

2. Graphical symbols to be used The graphical symbols to be used in the measuring circuit diagram of this Standard shall, in addition to those specified in JIS C 0301, be as given in Table 1.

Table 1

Graphical symbol	Name	Graphical symbol	Name
	Two-phenomenon oscilloscope		Current probe

3. Measurement power supply and instruments

3.1 Measurement power supply A d.c. power supply with a ripple content not exceeding 3 % or an a.c. power supply with a higher harmonic content not exceeding 5 % shall be used. However, in the case of power frequency, a supply with a content not exceeding 10 % shall be used. In the measurements of a.c. characteristics, the percent ripple content of d.c. power supply, the percent higher harmonic content of a.c. power supply, and the a.c. impedance of d.c. power supply circuit through which a.c. current flows shall be sufficiently small so that they will not affect the measurements.

Unless otherwise specified, the a.c. voltage and a.c. current shall be expressed in the r.m.s. values.

3.2 Instruments Unless otherwise specified, the d.c. and a.c. voltmeters, ammeters, etc. shall be of class index 0.5 specified in JIS C 1102. The maximum scale of an instrument with uniform scale shall be within ten times the measuring value and that of an instrument with shortened scale interval in the vicinity of zero shall be within four times the measuring value. The measuring value means the maximum value if stated in the Standard or it means the minimum value if only the minimum value is specified in the Standard.

In the following cases, instruments of class index 0.5 are not necessarily used: