

TECHNICAL REPORT



**Surface mounting technology –
Part 3-1: Standard method for the specification of components for through hole
reflow (THR) soldering – Guidelines for through hole diameter design with solder
paste surface printing method**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SURFACE MOUNTING TECHNOLOGY –

Part 3-1: Standard method for the specification of components for through hole reflow (THR) soldering – Guidelines for through hole diameter design with solder paste surface printing method

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Draft	Report on voting
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Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Report is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 61760 series, published under the general title *Surface mounting technology*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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SURFACE MOUNTING TECHNOLOGY –

Part 3-1: Standard method for the specification of components for through hole reflow (THR) soldering – Guidelines for through hole diameter design with solder paste surface printing method

1 Scope

This Part of IEC 61760 supplements IEC 61760-3 to describe examples of solder paste supply methods, the relationship between the terminal position tolerance and the through hole diameter, and provides guidelines for the design of printed circuit boards with solder paste surface printing method, including specific examples.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61760-3:2021, *Surface mounting technology – Part 3: Standard method for the specification of components for through-hole reflow (THR) soldering*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61760-3 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

stencil aperture

stencil opening

opening area for solder paste printing in the stencil

4 Solder paste application methods

4.1 General

The amount of solder paste required for through-hole reflow soldering is much greater than for surface mount. In the industry marketplace, various methods to supply the solder paste are utilised. All these methods have specific advantages and disadvantages and are depending upon the board lay-out, the solder material to be used, the through-hole components to be inserted. Other points to be considered are production efficiency, cost and quality requirements.