

SEMI G87-1108 (Reapproved 0215) SPECIFICATION FOR PLASTIC TAPE FRAME FOR 300 mm WAFER

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1 Purpose

1.1 The purpose of this Document is to standardize the specification of a plastic tape frame, for a 300 mm wafer, which is used between the dicing process and the die bonding process, and for the handling and shipping of wafers.

2 Scope

2.1 This Specification is applicable to plastic tape frames for 300 mm wafers.

2.2 This Standard puts in writing the dimensions, mechanical characteristics and measurement method for the 300 mm wafer tape frame.

2.3 This Standard can be used as a specification when purchasing tape frames.

NOTICE: SEMI Standards and Safety Guidelines do not purport to address all safety issues associated with their use. It is the responsibility of the users of the Documents to establish appropriate safety and health practices, and determine the applicability of regulatory or other limitations prior to use.

3 Referenced Standards and Documents

3.1 ISO Standard¹

ISO 13468-1 — Plastics – Determination of the Total Luminous Transmittance of Transparent Materials – Part 1: Single Beam Instrument

3.2 JIS Standard²

JIS K 7361-1 — Plastics – Determination of the Total Luminous Transmittance of Transparent Materials – Part 1: Single Beam Instrument

NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.

4 Terminology

4.1 Definitions

4.1.1 *plastic tape frame* — a ring-shaped plastic frame to fix a wafer to itself using wafer tape. It is used between the dicing process and the die bonding process, and for the handling and shipping of wafers.

4.1.2 *wafer tape* – adhesive plastic tape to hold the wafer or cut die.

5 Ordering Information

5.1 The purchase order shall include the quantity for the tape frame described by this Specification.

6 Requirements

6.1 *Dimensions* — See Table 1 and Figure 1.

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² Japanese Standards Association, 4-1-24 Akasaka, Minato-ku, Tokyo 107-8440, Japan; Telephone: +81.3.3583.8005, Fax: +81.3.3586.2014, <http://www.jsa.or.jp>

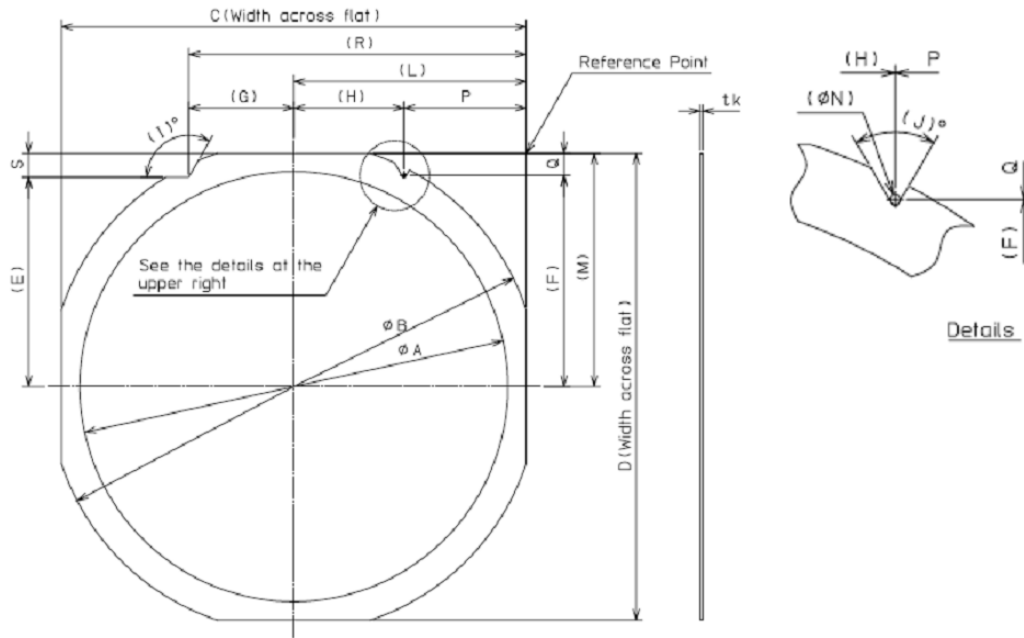


Figure 1
300 mm Wafer Plastic Tape Frame Dimension (View from the Surface)

Table 1 Dimensions of Tape Frame

Symbol	Dimension	Note
ϕA	350 ± 0.5 mm	Inner diameter
ϕB	400 ± 0.5 mm	Outer diameter
C	$380 + 0/-0.5$ mm	Width between two cords
D	$380 + 0/-0.5$ mm	Width between two cords
E	170.4 mm	Outline dimension
F	172 mm	Outline dimension
G	86 mm	Outline dimension
H	90 mm	Outline dimension
I	120°	
J	60°	Partition out with diameter N as standard
tK	2.5 ± 0.1 mm	Plate thickness
L	190 mm	
M	190 mm	
ϕN	3.2 mm	Pin diameter
P	100 ± 0.2 mm	Diameter N position
Q	18 ± 0.2 mm	Diameter N position
R	276	I Notch position
S	19.6 ± 0.2 mm	I Notch position

#1 There is no burr on the top edge.

6.2 *Total Luminous Transmittance of Tape Frame* — Total luminous transmittance shall be less than 70%.

6.3 *Deflection* — Deflection shall be less than 2.5 mm. Refer to ¶ 7.2 regarding measurement method.