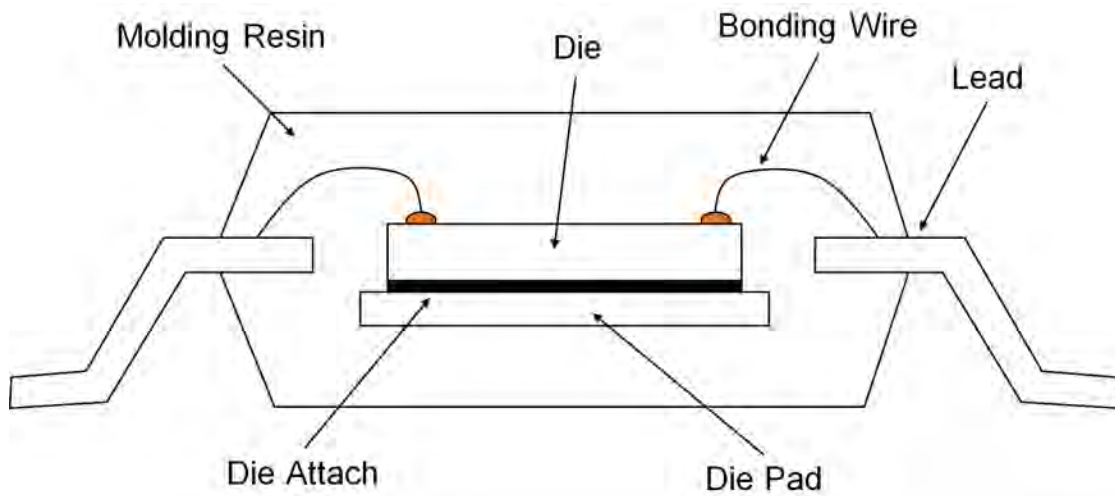


1. Package Information

Package Name	SQFP-T52
Type	QFP
Pin Count	52
Package Weight [g]	0.36
Lead Finish	Pure Tin
MSL	Level3

2. Package Structure



3. Packing Specification

3.1 Packing form, Quantity, PIN1 Orientation

Packing Form Tray
 Packing Quantity [pcs] 50
 PIN 1 Orientation Below Fig.1

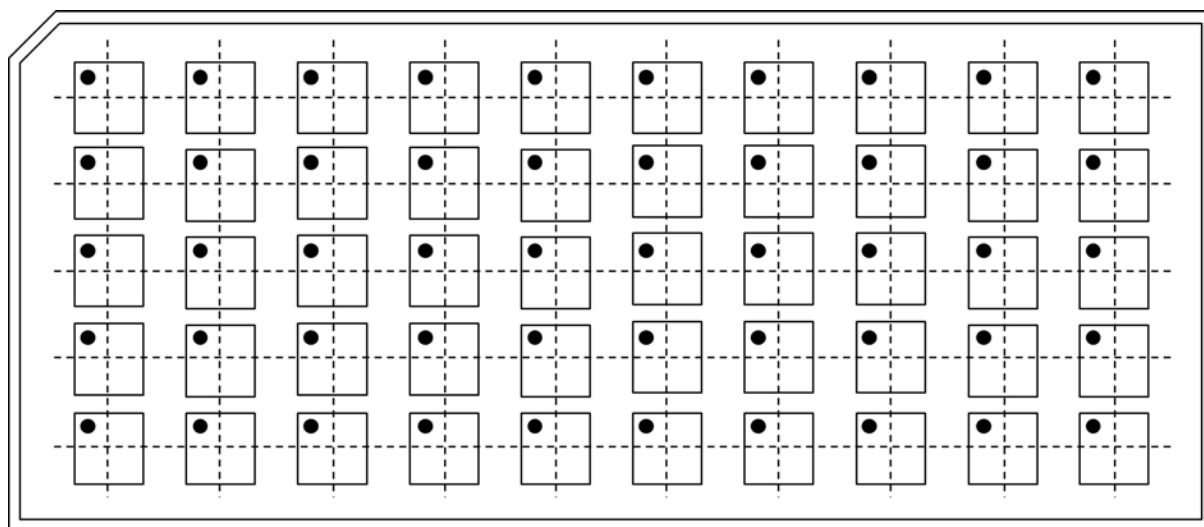
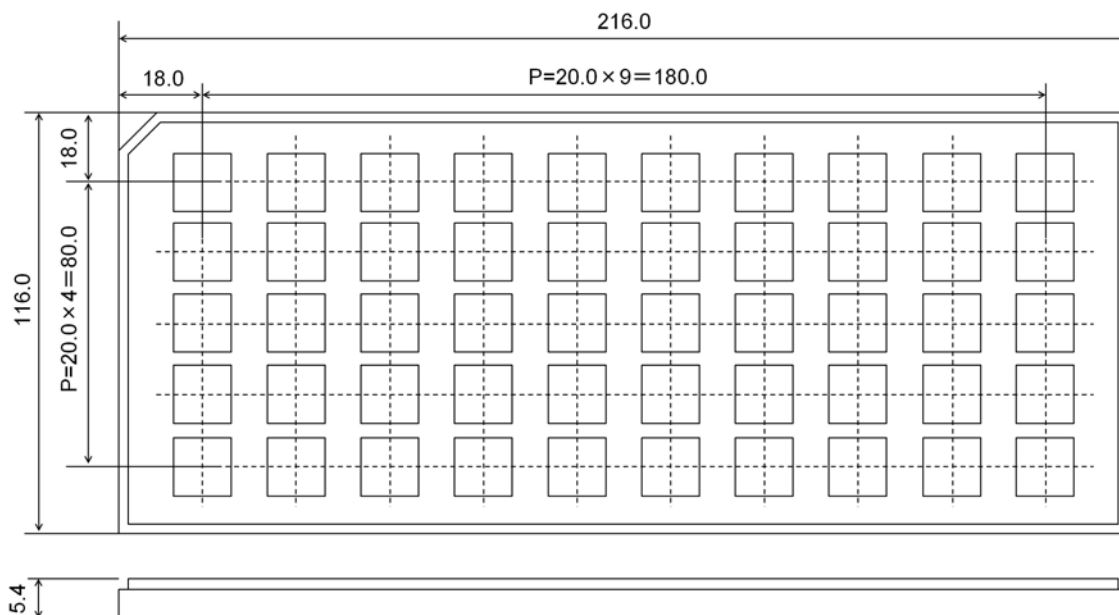


Fig.1 Quadrant Assignments for PIN 1 Orientation in Tray

3.2 Use material

Item	Material
Tray	PPE
Desiccant	Clay
Envelope	Aluminum-laminated
Unit box	Cardboard
Shipping box	Cardboard

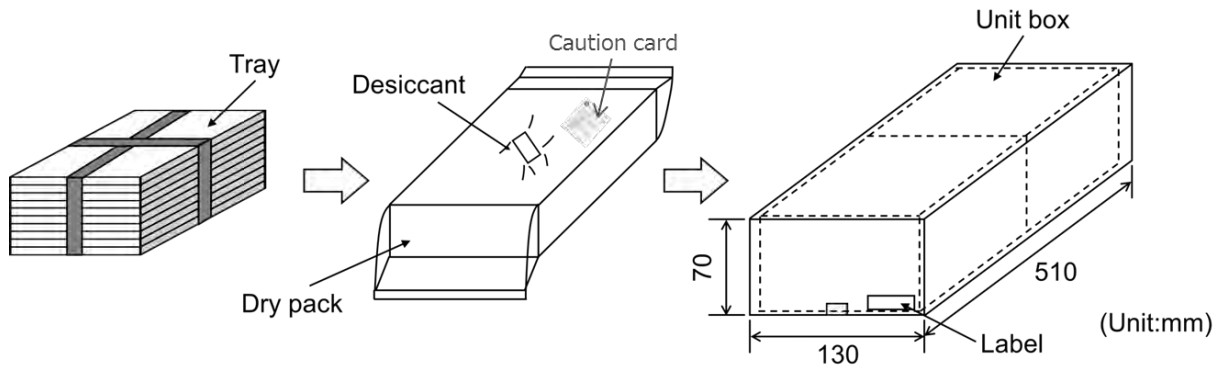
3.3 Tray Specification
3.3.1 Tray Dimension



(unit:mm)

3.4 Packing Method

20 tray(s) or less per unit box

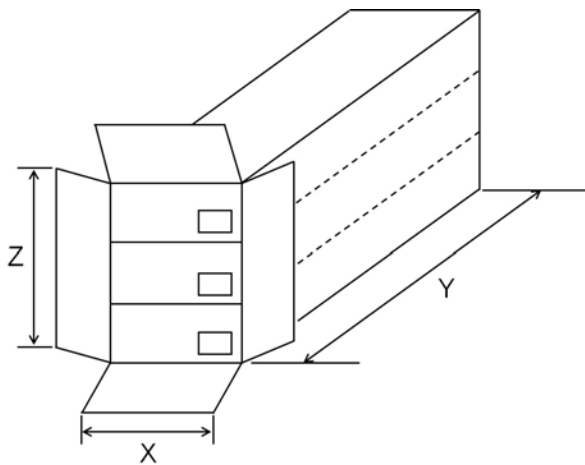


(Unit:mm)

(unit:mm)

3.5 Packing Style

3 unit boxes or less per shipping box



(unit:mm)

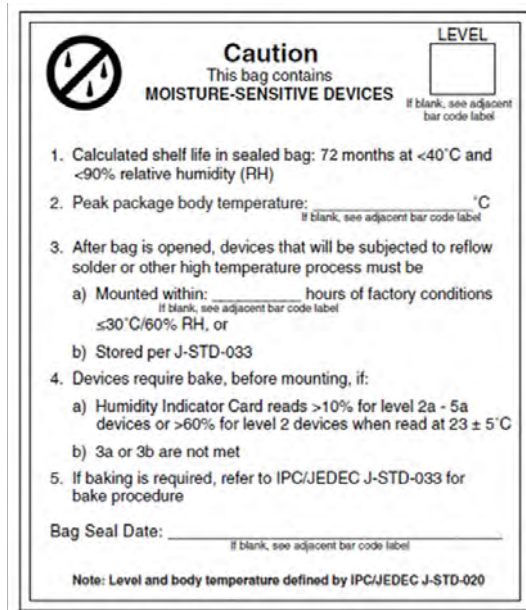
Shipping Box Dimension	
X	136
Y	579
Z	230

3.6 Label Specification



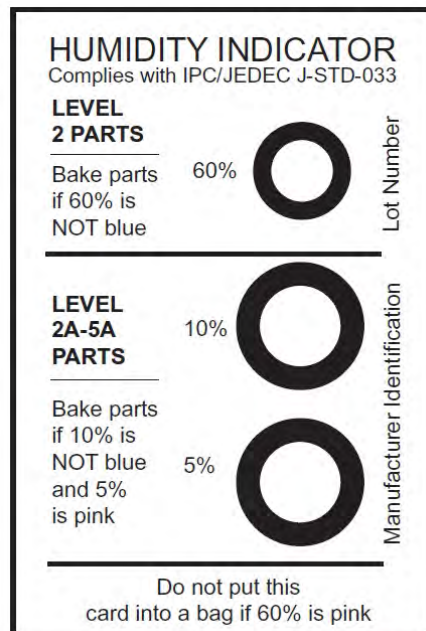
Label Example

3.7 Caution card specification

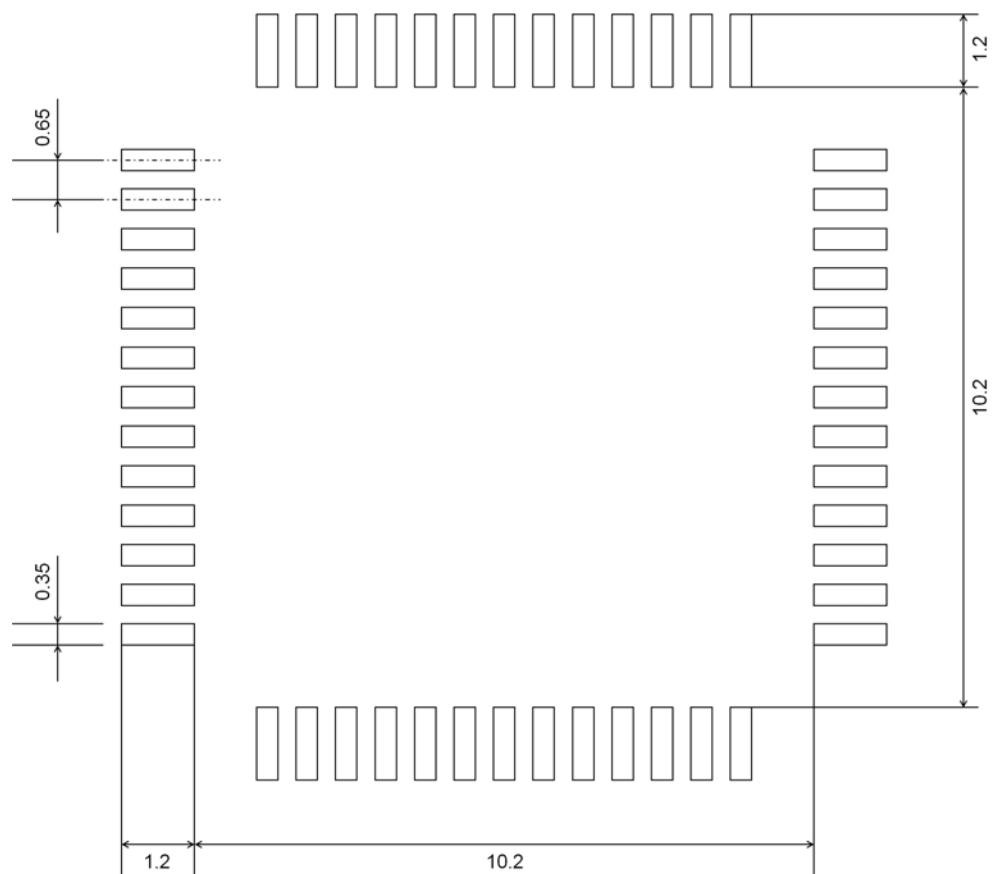


Remark) Standard item 1. calculated shelf life in caution card is not applied for MSL1 product.

3.8 Indicator card specification



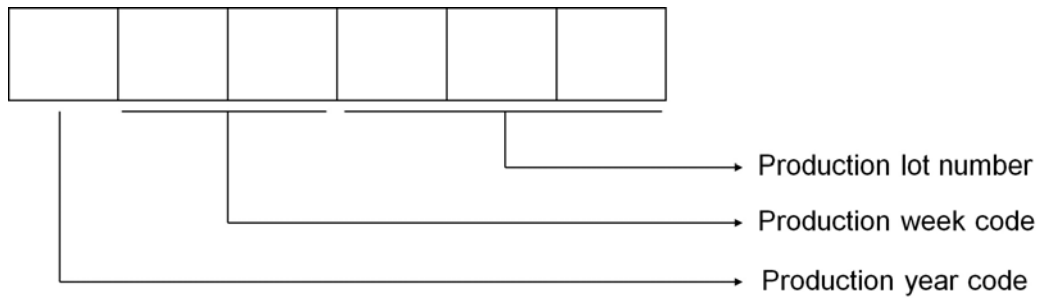
4. Footprint dimensions



(unit:mm)

In actual design, please optimize in accordance with the situation of your board design and soldering condition.

5. Marking Specification



6. Storage conditions

6.1 Storage environment

Recommended storage conditions

	Min.	Max.	Unit
Temperature	5	30	°C
Humidity	-	70	% RH

6.2 Storage period(Start to count since delivery date)

	Min.	Max.	Unit
Storage period	-	1	year

6.3 Specified storage period until soldering

	Min.	Max.	Unit
Acceptable time	-	168	h

The above value is a time from opening the moisture-proof packaging until the s

Cases where it is necessary to perform the drying process is the following.

Case 1 : in excess of the above-mentioned "Acceptable time"

Case 2 : it has passed more than 6 years not open

Recommended the dry process conditions

	Temperature [°C]	Time [h]
Tray	125	24

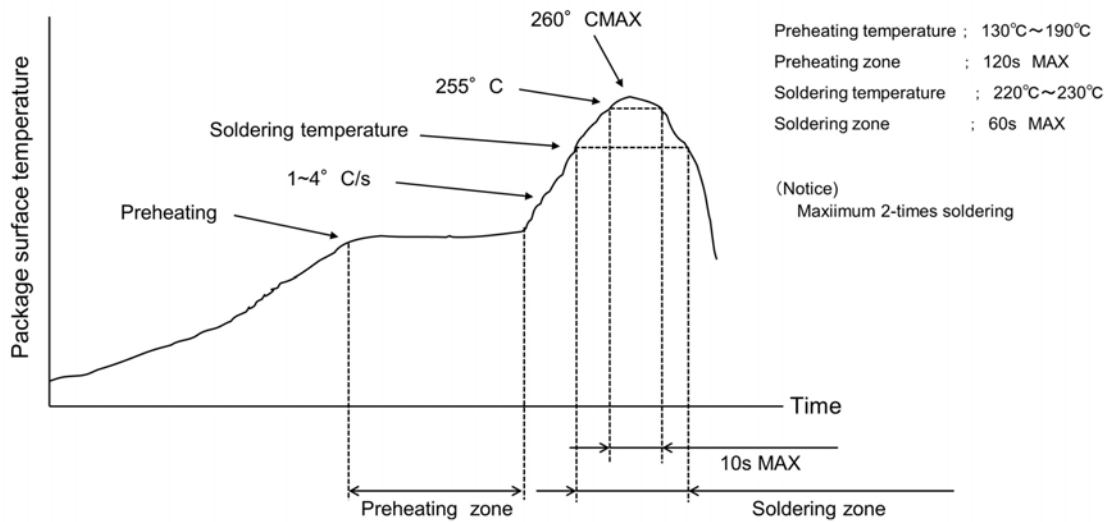
The drying process is the impact on the solderability because the oxidation of the terminal portion will occur. Therefore, specify the maximum times of the dry processing as follows:

Recommended execution count of the dry process

	Min.	Max.	Unit
Execution count	-	2	times

7. Soldering conditions

7.1 Recommended temperature profile for reflow



7.2 Recommended condition for wave soldering

Preheating temperature	:	120 °C to	150 °C
Preheating time	:	60 s	MAX
Soldering temperature	:	260 °C ±	3 °C
Soldering time	:	12 s	MAX

Notes for wave soldering

- (1) Soldering time is provided for total soldering time in case of dual wave soldering.
- (2) Do not use other soldering methods with wave soldering.
- (3) Recommend to clean the board to eliminate flux, solder waste, and other impurities for reliability, after soldering.
- (4) Optimize soldering condition to prevent solder bridging.

7.3 Recommended condition for solder iron

Solder iron temperature	:	380 °C or less
Mounting time	:	4 s or less

Notes for solder iron

- (1) Solder mounting time is the time per 1 lead

Notes

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