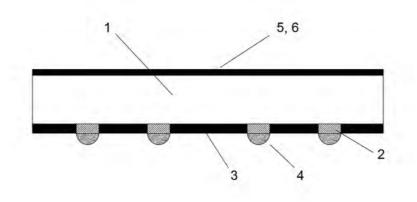


1. Package Information

Package Name		UCSP50L1
Package Weight	[mg]	0.66
MSL ^(Note 1)		MSL1
Note 1 : The MSL Level are determined based on the JEDEC J-STD-020.		

2. Pacakage Structure

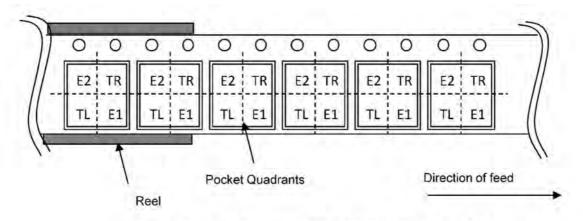


Item	Materials	
Die	Silicon	
Cu Post	Cu	
Mold Compound	Epoxy Resin	
Ext. terminal	Ext. terminal Sn-3Ag-0.5Cu Solder	
Mold Compound	Polyamide-imide Resin	
Marking	Laser Marking	
	Cu Post Mold Compound Ext. terminal Mold Compound	

3. Packing Specification

3.1 Packing form, Quantity, PIN1 Orientation and Weight

Packing Form		Tape&Reel
Packing Quantity	[pcs/Reel]	3,000
PIN 1 Orientation		E2





E2 : PIN1 is placed to the top left corner. TR : PIN1 is placed to the top right corner. TL : PIN1 is placed to the lower left. E1 : PIN1 is placed to the lower right.

3.2 Use material

Inatonia	
Item	Material
Embossed carrier tape	PS (antistatic)
Cover tape	PET+PE (antistatic)
Reel	PS (antistatic)
Unit box	Cardboard
Shipping box	Cardboard

3.3 Leader specification

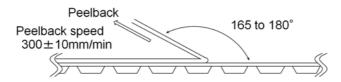
No component pockets are 100 pockets (400 mm) or more.

3.4 Trailer specification

No component pockets are 40 pockets (160 mm) or more. Tape is free from reel.

3.5 Peelback strength

Cover tape peelback strength is 0.2 N to 0.7 N.



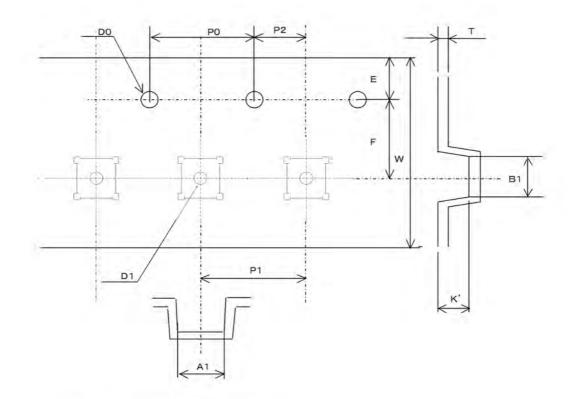
3.6 Missing ICs

(1) No consecutive dropouts.

(2) A maximun 0.1 % of specified number of products in each packing may be missing.

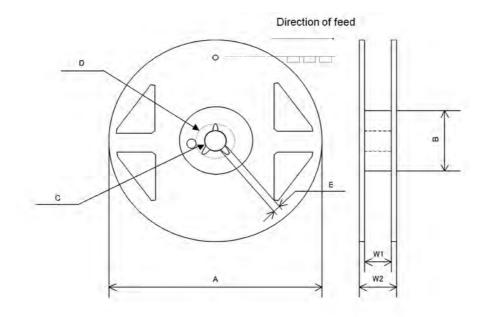
3.7 Tape and Reel Specification

^{3.7.1} Tape Dimension



Symbol	Dimension	Tolerance	
A1	0.89	±0.05	
B1	0.89	±0.05	
D0	φ1.5	+0.1 -0	
D1	φ0.2	±0.1	
E	1.75	±0.1	
F	3.5	±0.1	
K'	0.85	±0.1	
P0	4.0	±0.1	
P1	4.0	±0.1	
P2	2.0	±0.1	
т	0.2	±0.05	
W	8.0	±0.3	
		(mm	

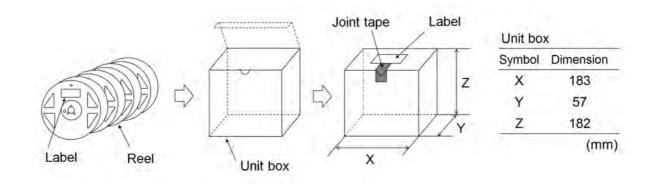
3.7.2 Reel Dimension



Symbol	Dimension	Tolerance	
A	<i>φ</i> 180	+0 -1.5	
В	60	MIN	
С	φ13.0	±0.2	
D	φ20.2	MIN	
E	1.5	MIN	
W1	9.0	+1.0 -0	
W2	11.4	±1.0	
		(mm	

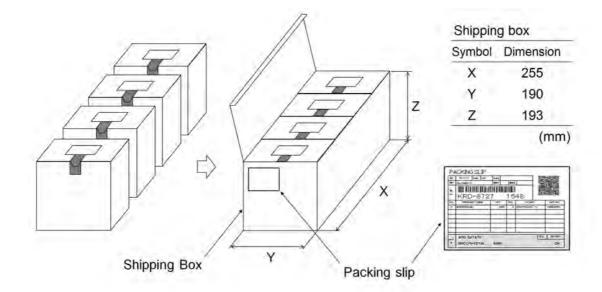
3.8 Packing Method

4 reels or less per unit box.



3.9 Packing Style

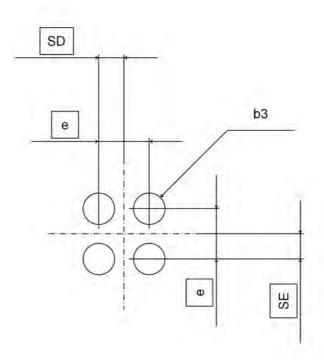
4 unit boxes or less per shipping box.



3.10 Label Specification



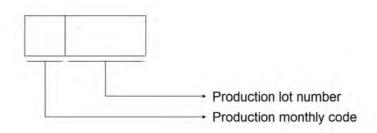
4. Footprint dimensions



Reference Value
0.40
0.25
0.20
0.20

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 con	ditions	
	Min.	Max.	Unit
Temperature	5	30	°C
Humidity	40	70	% RH

6.2. Storage period (Start to count since delivery date)

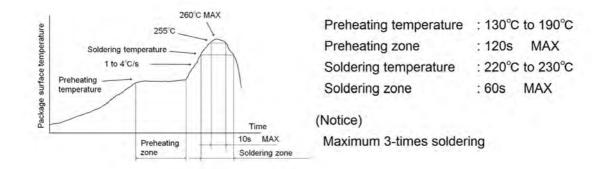
	Min.	Max.	Unit
Storage period	-	1	year

6.3. Specified storage period until soldering

This package dose not require additional drying treatment as long as the moisture condition at the mounting process is within our recommended mounting condition.

7. Soldering conditions

7.1. Recommended temperature profile for reflow



7.2. About mounting with Sn-Pb solder paste

Mounting Sn-Pb solder paste is not reccommended because it has a possibility of reducing reliability to connect with Sn-3.0Ag-0.5Cu solder balls.

- 7.3. The wave soldering mehod is not supported.
- 7.4. Partial heat supply method (by soldering iron) is not supported.

8. Precautions

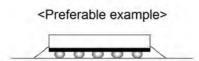
8.1. Caution for handling

Silicon substrate surface is exposing to the side of this package. Therefore, please pay careful attention to chip and crack, and handle without touching the side of package.

8.2. Regarding the underfill material

In some case, the underfill material is applied in order to reinforce the solder junction of package. Since there is a case that solder joint reliability may deteriorate according to the resin material or coating condition, please evaluate it sufficiently for its application.

In term of the coating condition, it is preferable that there is an enough material beyond the each four sides of package.



There is a Underfill resin evenly at each four sides.

<Non Preferable example>

There is little Underfill resin at one or two sides.

8.3. Mounting on Flexible film

Since film bending stress may occur open failture of solder junction, usage of support board or under fill is recommended.



8.4. Regarding the jisso form

When it is used under the special conditions such as embedded PCB, please evaluate it sufficiently for its application.

8.5. Regarding the solder terminal

Due to the solder terminal of this package is formed by screen printing method, there may be void observed inside of terminal. Although the void after mounting may not affect solder joint reliability or strength, the size of the void may be increased depending on board and mounting condition, thus ROHM hereby states that the void after mounting will not be guaranteed.

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