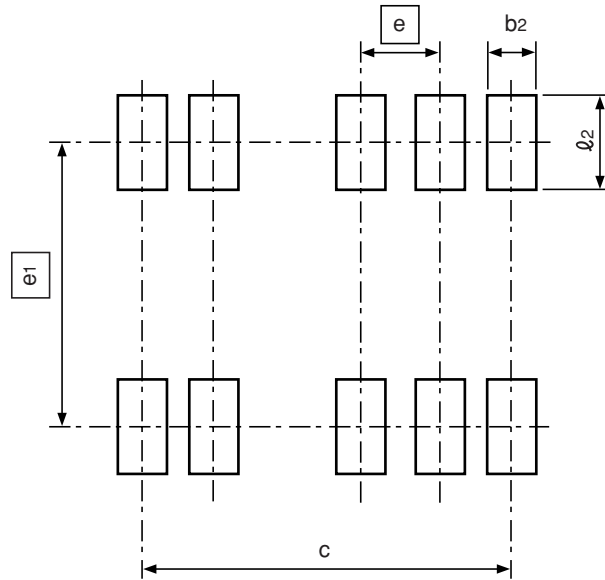


RECOMMENDED LAND PATTERN



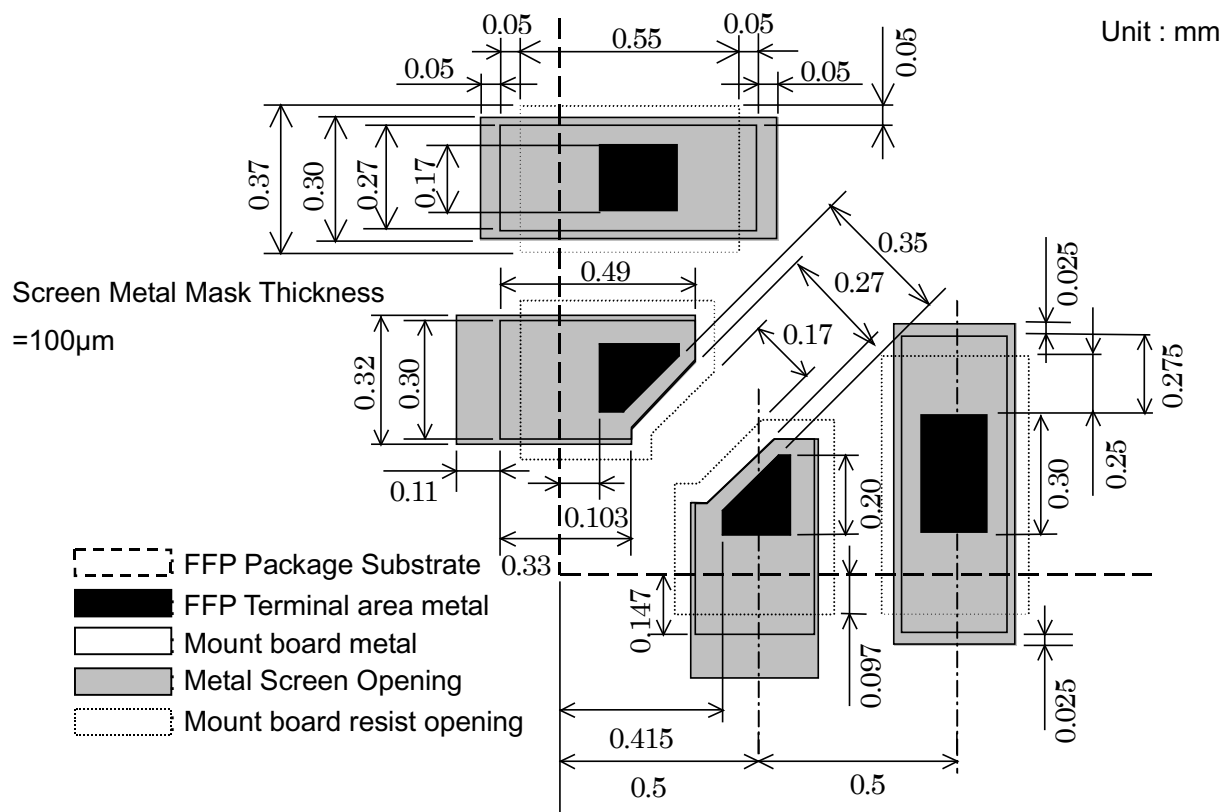
Unit: mm

PACKAGE	PIN PITCH	b_2	l_2	c	e_1	e
8-pin SSOP	0.65mm	0.35	1.0	1.95	5.9	0.65
10-pin SSOP	0.5mm	0.3	1.0	2.0	5.9	0.5
10-pin SSOP-G,TSSOP-G	0.5mm	0.3	1.0	2.0	3.5	0.5
14-pin SSOP	0.65mm	0.35	1.0	3.90	5.9	0.65
16-pin SSOP	0.65mm	0.35	1.0	4.55	5.9	0.65

RECOMMENDED LAND PATTERN

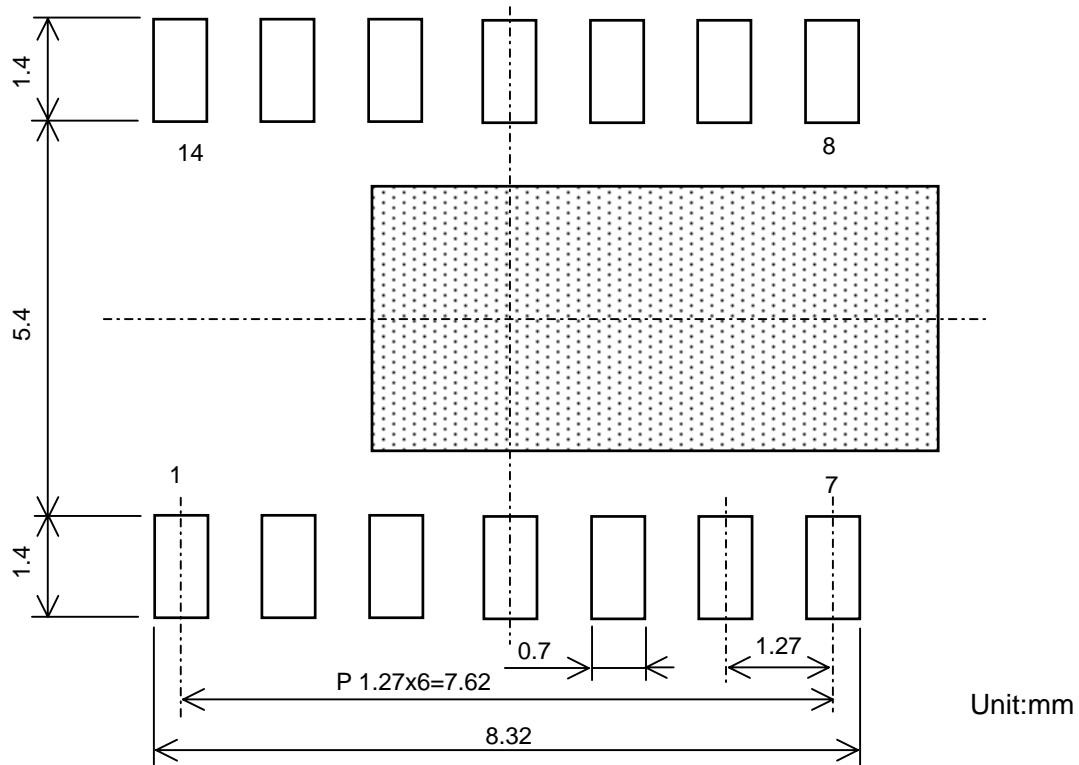
● FFP-12

(Reference Chart)

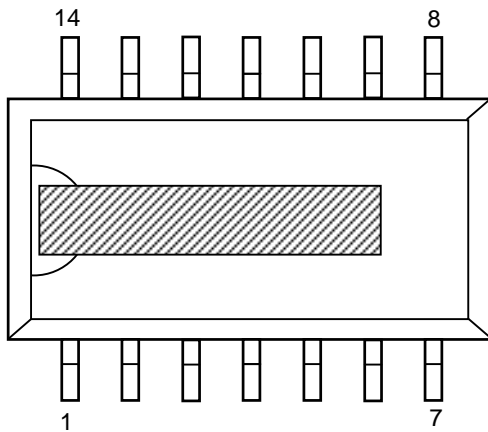




* Please do the mounting design in consideration of the easiness of mounting, the solder bridge generation rate, and the reliability of the connection.

SOP-14 Land Pattern (Preliminary)

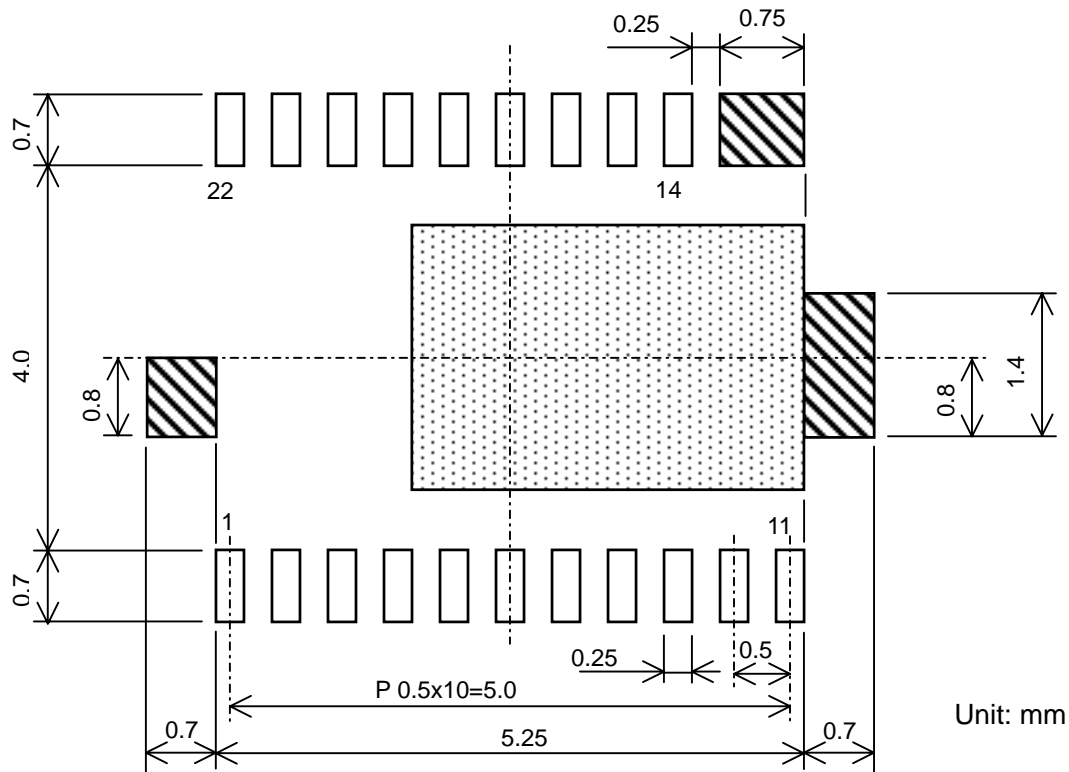


Package Top view



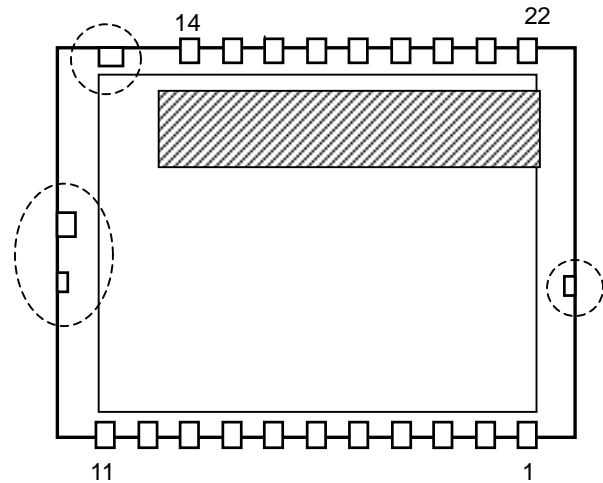
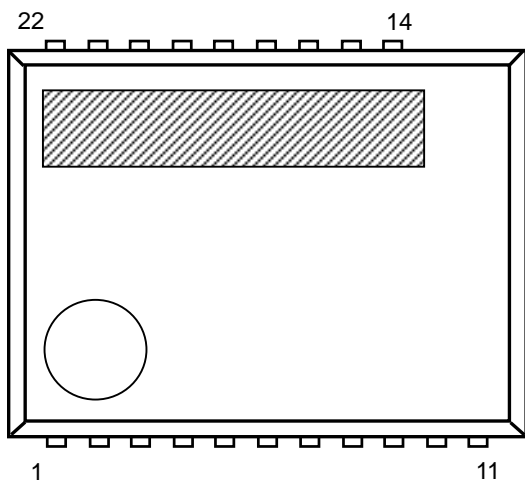
1. Pad layout and size can modify by customers material,equipment,method. Please adjust pad layout according to your conditions.
2. In the mount area which described as  is close to the inside oscillator circuit. To avoid the malfunction by noise, check the other signal lines close to the area, do not intervene with the oscillator circuit.
3. A part of a metal case of the crystal may be seen in the area which described as  in both sides of the package. It has no influence on the characteristics and quality of the product.





SON-22 Land Pattern (Preliminary)



Package Top view

Package Bottom View



1. Pad layout and size can modify by customers material, equipment, method. Please adjust pad layout according to your conditions.
2. Any signal line should not pass through the area which described as  in the land pattern. If a signal line is located in that area, it may cause a short circuit with a tab suspension leads which is marked with  in the figure above or unnecessary remainder of cut lead.
3. In the mount area which described as  is close to the inside oscillator circuit. To avoid the malfunction by noise, check the other signal lines close to the area, do not intervene with the oscillator circuit.
4. A part of a metal case of the crystal may be seen in the area which described as  in both sides of the package. It has no influence on the characteristics and quality of the product.