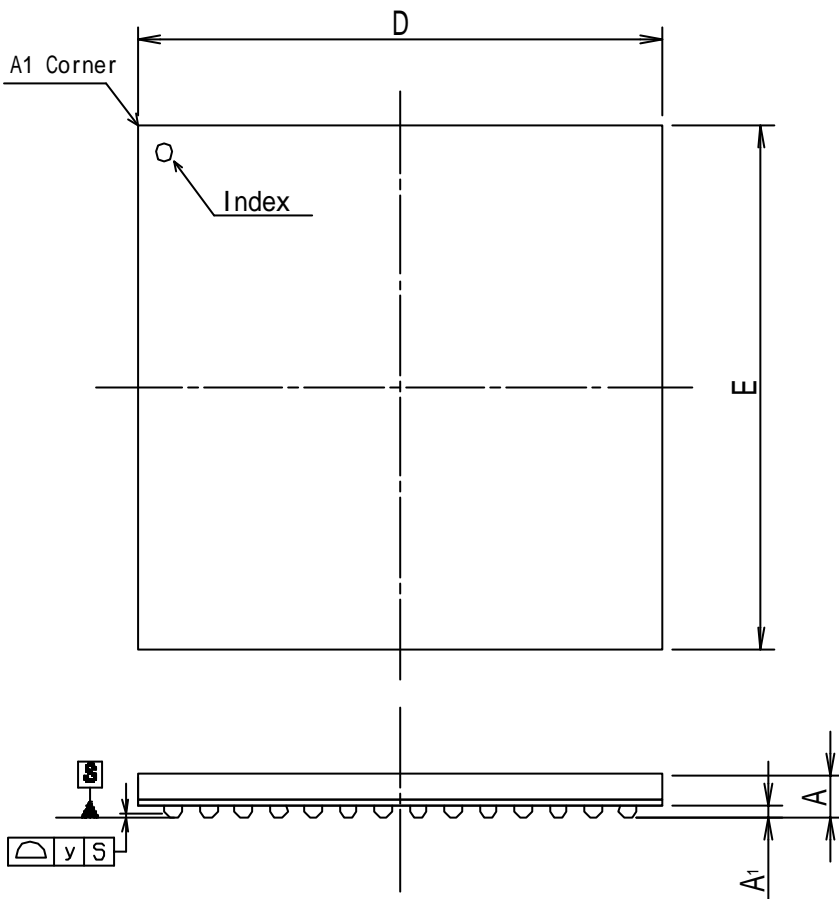
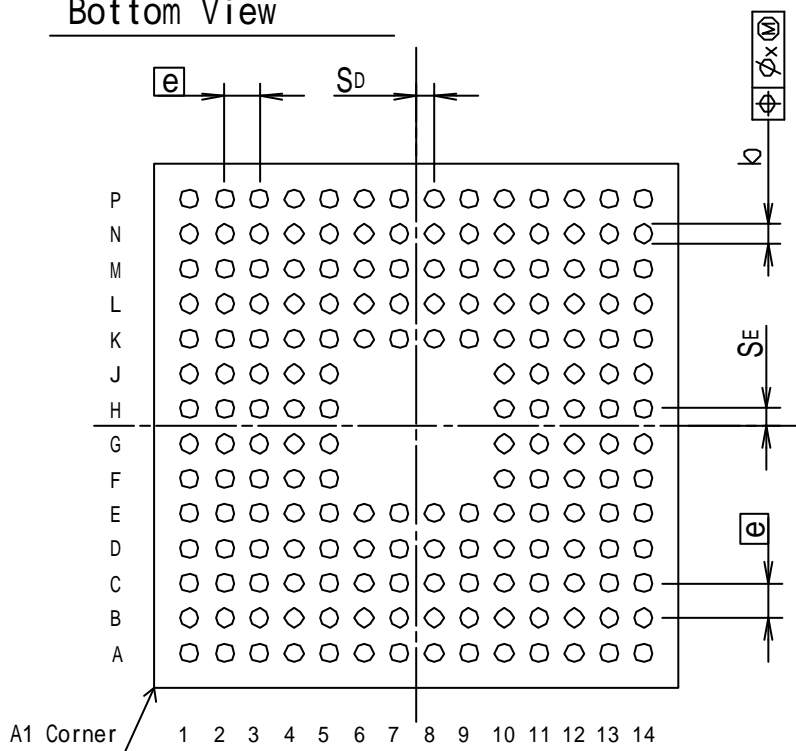


### Top View



### Bottom View



Symbol	Dimension in Millimeters		
	Min	Nom	Max
D	-	12	-
E	-	12	-
A	-	-	1.2
A <sub>1</sub>	-	0.3	-
e	-	0.8	-
b	0.38	-	0.48
x	-	-	0.08
y	-	-	0.1
S <sub>D</sub>	-	0.4	-
S <sub>E</sub>	-	0.4	-

Unit : mm

TITLE

P-TFBGA-180-1212-0.80(PFBGA12U-180)

**SEIKO EPSON CORP.**