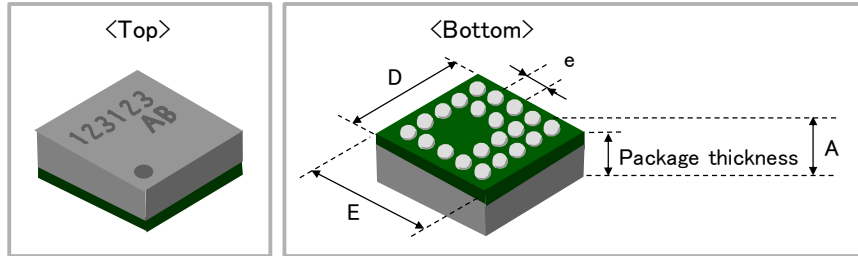


BGA/LGA Package lineup



Package outline drawing
(example of BGA)

BGA/LGA Package lineup

Package	Package size (mm)			e (Terminal pitch) (mm)	Number of terminal									
	D (Total length)	E (Total width)	A (Total height)		8	9	17	54	81	88	140	163	225	
BGA	13.0	13.0	2.00	0.80									●	
	19.0	24.0	0.25	1.50								○		
LGA	9.0	9.0	1.29	0.50					○					
	11.0	15.0	1.00	1.10	○									
	14.0	22.6	1.00	0.80				●						
	19.3	28.0	1.10	0.80						○				
	21.9	29.4	1.18	2.50			○							
	21.9	14.0	1.18	2.50		○								
	27.0	29.0	1.60	0.80							○			

<About Package thickness>

• Package thickness is available from 0.59 to 1.60mm typ. (Can be manufactured if there is a substrate)

* Dimensions excluding balls for BGA

○ : Have actual results

● : Have actual results and in production