

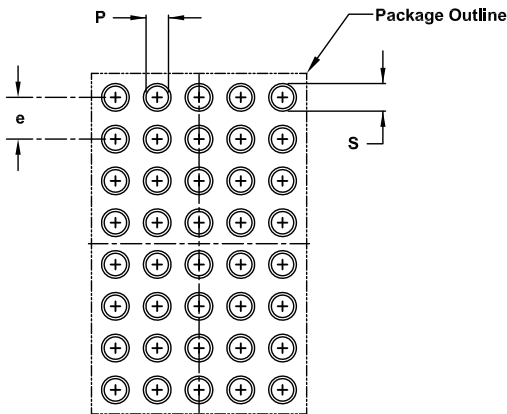
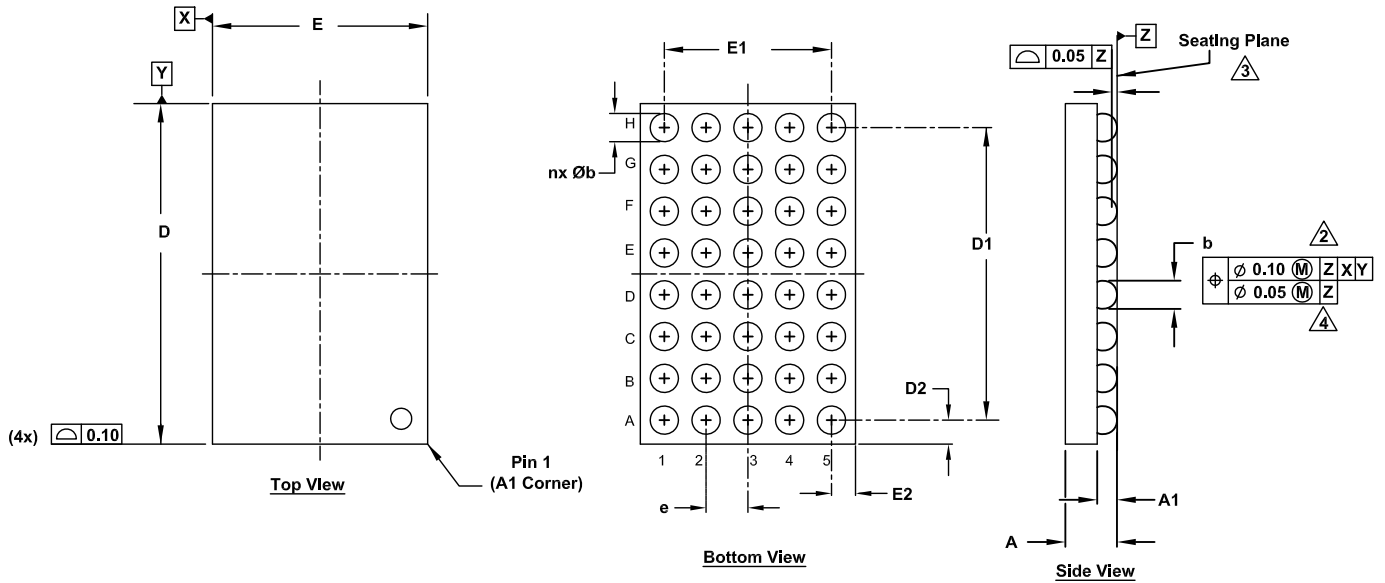
# Plastic Packages for Integrated Circuits

## Package Outline Drawing

W5x8.40A

40 Ball Wafer Level Chip Scale Package (WLCSP 0.4mm Pitch)

Rev 2, 2/20



△6 NSMD

Typical Recommended Land Pattern

	Symbol	Min	Nom	Max
Total Thickness	A	0.45	0.50	0.55
Stand Off	A1	0.17	0.20	0.23
Body Size	X E	2.03	2.06	2.09
	Y D	3.23	3.26	3.29
Edge Ball Center to Center	X E1	1.60		
	Y D1	2.80		
Edge Ball Center to Package Edge	X E2	0.23		
	Y D2	0.23		
Pitch	e	0.4 BSC		
Ball Diameter (Size)		0.25		
Ball Width	b	0.230	0.265	0.300
Ball Count	n	40		
PCB Pad Diameter	P	0.215		
PCB Soldermask Opening	S	0.265		

Notes:

1. Dimensions and tolerance per ASME Y14.5 - 1994.
- △2 Dimension is measured at the maximum bump diameter parallel to primary datum [Z].
- △3 Primary datum [Z] and seating plane are defined by the spherical crowns of the bump.
- △4 Bump position designation per JESD 95-1, SPP-010.
5. All dimensions are in millimeters.
- △6 NSMD refers to non-solder mask defined pad design per Renesas TB451.