

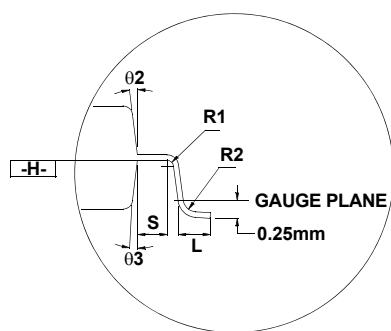
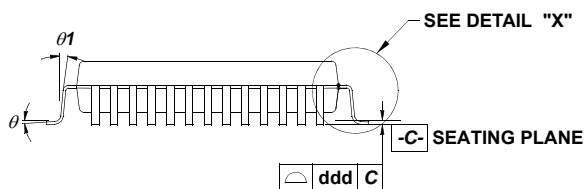
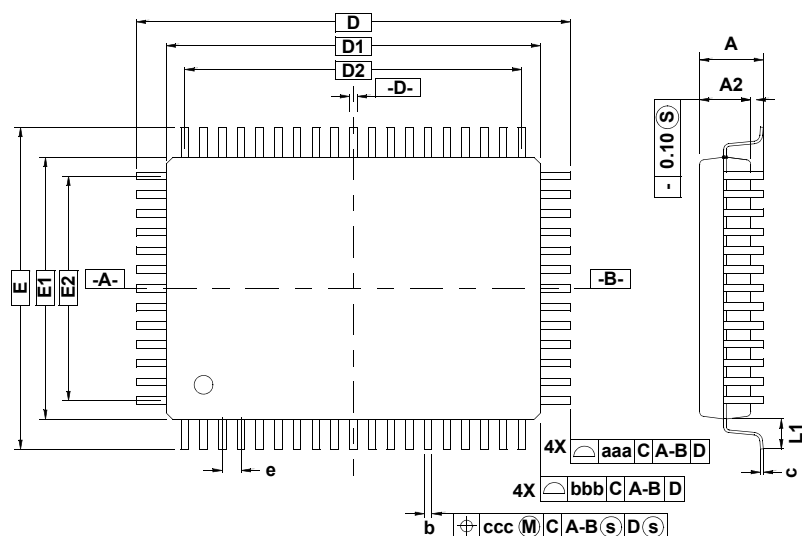
Plastic Packages for Integrated Circuits

Package Outline Drawing

Q128.14x20G

128 LEAD PLASTIC QUAD FLATPACK PACKAGE (PQFP)

Rev 0, 10/12



SYMBOL	MILLIMETER			INCH		
	MIN	NOM	MAX	MIN	NOM	MAX
A	-	-	3.40	-	-	0.134
A1	0.25	-	-	0.010	-	-
A2	2.50	2.72	2.90	0.098	0.107	0.114
D	23.20 BSC			0.913 BSC		
D1	20.00 BSC			0.787 BSC		
E	17.20 BSC			0.677 BSC		
E1	14.00 BSC			0.551 BSC		
R2	0.13	-	0.30	0.005	-	0.012
R1	0.13	-	-	0.005	-	-
θ	0°	-	7°	0°	-	7°
θ1	0°	-	-	0°	-	-
Alloy 42 L/F 02, 03	7° REF			7° REF		
Copper L/F 02, 03	15° REF			15° REF		
c	0.11	0.15	0.23	0.004	0.006	0.009
L	0.73	0.88	1.03	0.029	0.035	0.041
L1	1.60 REF			0.063 REF		
S	0.20	-	-	0.008	-	-
b	0.170	0.200	0.270	0.007	0.008	0.011
e	0.50 BSC			0.020 BSC		
D2	18.50			0.728		
E2	12.50			0.492		
TOLERANCES OF FORM AND POSITION						
aaa	0.20			0.008		
bbb	0.20			0.008		
ccc	0.08			0.003		
ddd	0.08			0.003		

NOTES:

- Dimensions D1 and E1 do not include mold protrusion. Allowable protrusion is 0.25mm per side. Dimensions D1 and E1 do include mold mismatch and are determined at datum plane [-H-].
- Dimension b does not include dambar protrusion. Allowable dambar protrusion shall be 0.08mm total in excess of the b dimension at maximum material condition. Dambar cannot be located on the lower radius or the lead foot.
- Control dimensions are in millimeters.