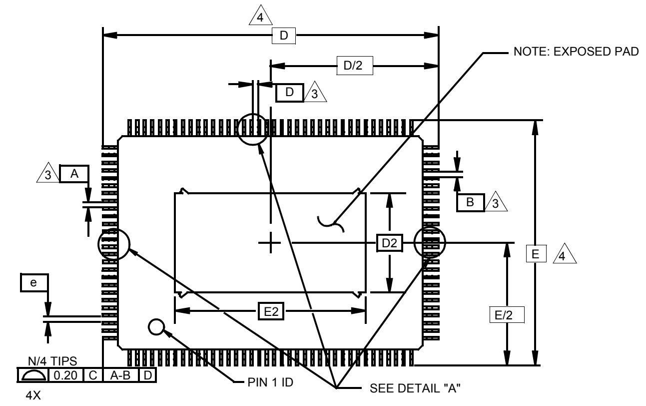
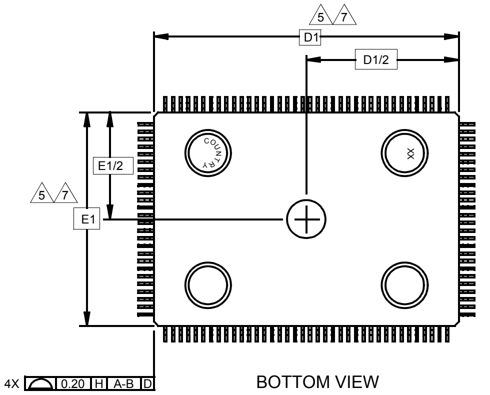
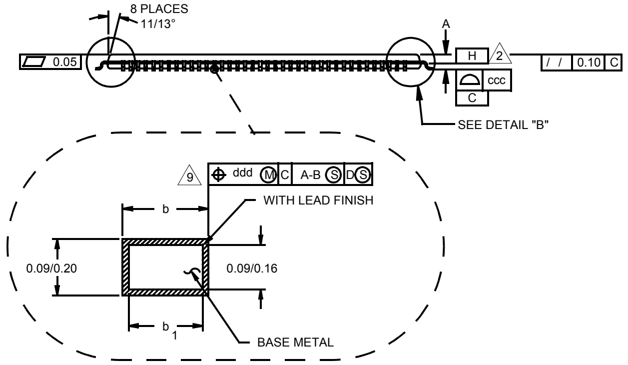
Low Plastic Quad Flatpack Package with Top Exposed Pad (LQFP-TEP)

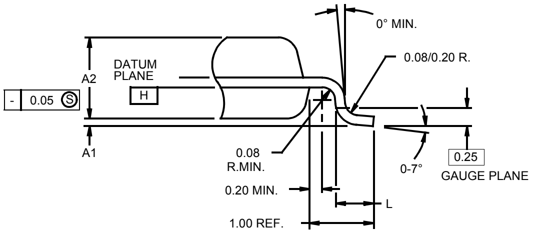


TOP VIEW

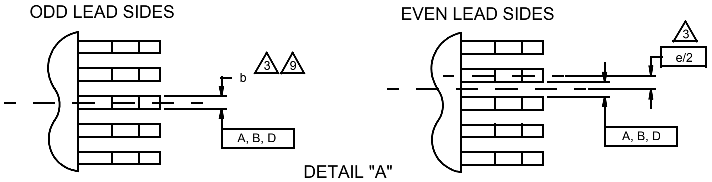


BOTTOM VIEW





DETAIL "B"


ODD LEAD SIDES

EVEN LEAD SIDES

DETAIL "A"

Q128.14x20A

128 LEAD LOW QUAD FLATPACK WITH TOP EXPOSED PAD

SYMBOL	MILLIMETERS			NOTES
	BHB			
	MIN	NOM	MAX	
A	-	-	1.60	
A1	0.05	-	0.15	13
A2	1.35	1.40	1.45	
D	22 BSC			4
D1	20 BSC			7, 8
D2	12.50 BSC			14
E	16 BSC			4
E1	14 BSC			7, 8
E2	6.5 BSC			14
L	0.45	0.60	0.75	
N	128			
e	0.50 BSC			
b	0.17	0.22	0.27	9
b1	0.17	0.20	0.23	
ccc			0.08	
ddd			0.08	

Rev. 1 7/11

NOTES:

1. Dimensioning and tolerancing conform to AMSE Y14.5m-1994.
2. Datum plane H located at mold parting line and coincident with lead, where lead exits plastic body at bottom of parting line.
3. Datums A-B and D to be determined at center lines between leads where leads exit plastic body at datum plane H.
4. To be determined at seating plane C.
5. Dimensions D1 and E1 do not include mold protrusion. Allowable mold protrusion is 0.254mm per side on D1 and E1 dimensions.
6. “N” is the total number of terminals.
7. These dimensions to be determined at datum plane H.
8. Package top dimensions are smaller than package bottom dimensions and top of package will not overhang bottom of package.
9. Dimension b does not include dambar protrusion. Allowable dambar protrusion shall not be 0.08mm total in excess of the b dimension at maximum material condition. Dambar cannot be located at the lower radius or the foot.
10. Controlling dimension: millimeter.
11. Maximum allowable die thickness to be assembled in this package family is 0.38 millimeters.
12. This outline conforms to JEDEC publication 95 Registration MS-026, variations BHA & BHB.
13. A1 is defined as the distance from the seating plane to the lowest point of the package body.
14. Dimensions D2 and E2 represent the size of the exposed pad. The actual dimensions may be reduced up to 0.76mm due to mold flash.