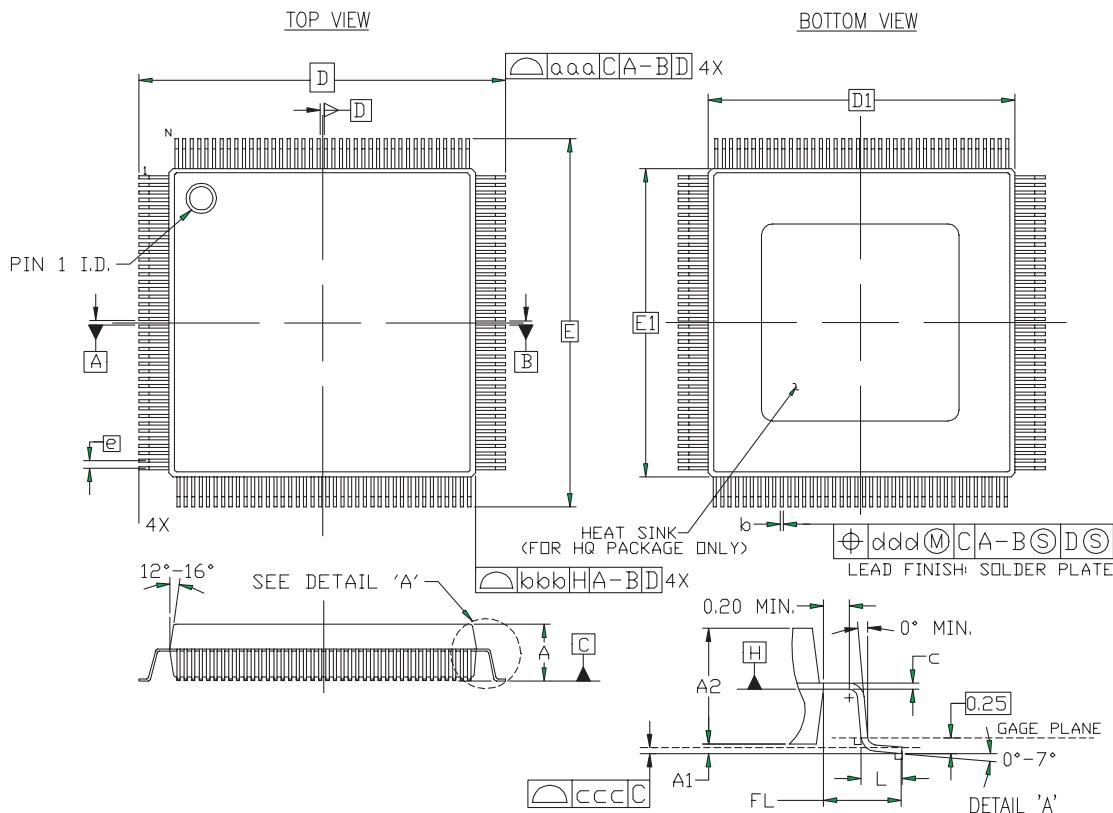


PQ/HQFP Packages - PQ44, PQ160, PQ208, PQ240, HQ160, HQ208, HQ240



PQ44			PQ/HQ160			PQ/HQ208			PQ/HQ240			
SYM	MILLIMETERS		SYM	MILLIMETERS		SYM	MILLIMETERS		SYM	MILLIMETERS		
	MIN.	NOM.		MIN.	NOM.		MIN.	NOM.		MIN.	NOM.	
A	~	2.15	2.35	~	3.70	4.10	~	3.70	4.10	~	3.78	4.10
A ₁	0.05	~	0.25	0.25	0.33	0.50	0.25	0.33	0.50	0.25	0.38	0.50
A ₂	1.95	2.00	2.10	3.20	3.40	3.60	3.20	3.40	3.60	3.20	3.40	3.60
D/E	13.20 BSC		31.20 BSC		30.60 BSC		34.60 BSC		32.00 BSC		32.00 BSC	
D ₁ /E ₁	10.00 BSC		28.00 BSC		28.00 BSC		1.30 REF.		1.30 REF.		1.30 REF.	
F _L	1.60 REF.		1.60 REF.		1.60 REF.		0.50 BSC.		0.50 BSC.		0.50 BSC.	
L	0.73	0.88	1.03	0.73	0.88	1.03	0.50	0.60	0.75	0.50	0.60	0.75
e	0.80 BSC.		0.65 BSC.		0.50 BSC.		0.50 BSC.		0.50 BSC.		0.50 BSC.	
b	0.30	~	0.45	0.22	~	0.40	0.17	0.22	0.27	0.17	~	0.27
c	0.13	~	0.23	0.13	~	0.23	0.09	~	0.20	0.09	~	0.20
aaa	~	~	0.25	~	~	0.25	~	~	0.25	~	~	0.25
bbb	~	~	0.20	~	~	0.20	~	~	0.20	~	~	0.20
ccc	~	~	0.10	~	~	0.10	~	~	0.08	~	~	0.08
ddd	~	~	0.20	~	~	0.13	~	~	0.08	~	~	0.08
N	44		160		208		240		240		240	
REF.	JEDEC MS-022-AB		JEDEC MS-022-DD1		JEDEC MS-029-FA-1		JEDEC MS-029-GA		JEDEC MS-029-GA		JEDEC MS-029-GA	

NOTES:

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ANSI Y14.5M-1994.
2. DIMENSIONS D₁ AND E₁ DO NOT INCLUDE MOLD PROTRUSION.
ALLOWABLE MOLD PROTRUSION SHALL NOT EXCEED 0.25mm PER SIDE.
3. PACKAGE TOP DIMENSIONS MAY BE SMALLER THAN THE BOTTOM DIMENSIONS BY 0.20mm.
4. THE SAME PACKAGE DIMENSIONS APPLY FOR THERMALLY ENHANCED PRODUCTS. HEAT SINK IS ADDED. THE PACKAGE CODE IS "HQ".

44, 160, 208, 240-PIN PQFP/HEAT SINK PQFP (PQ44, PQ/HQ160, 208, 240)