

JEDEC  
SOLID STATE PRODUCT  
OUTLINES

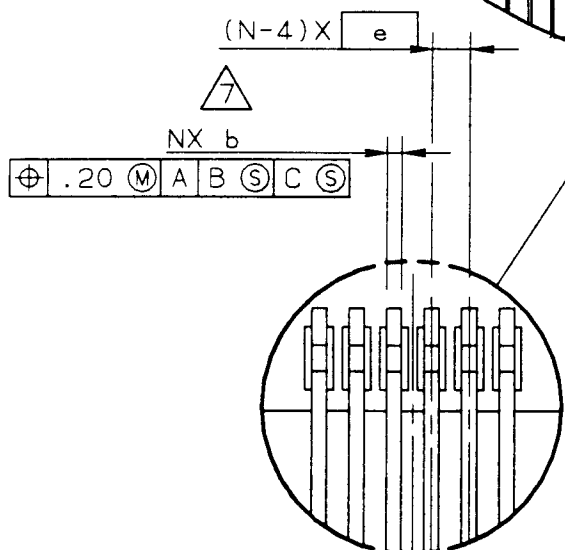
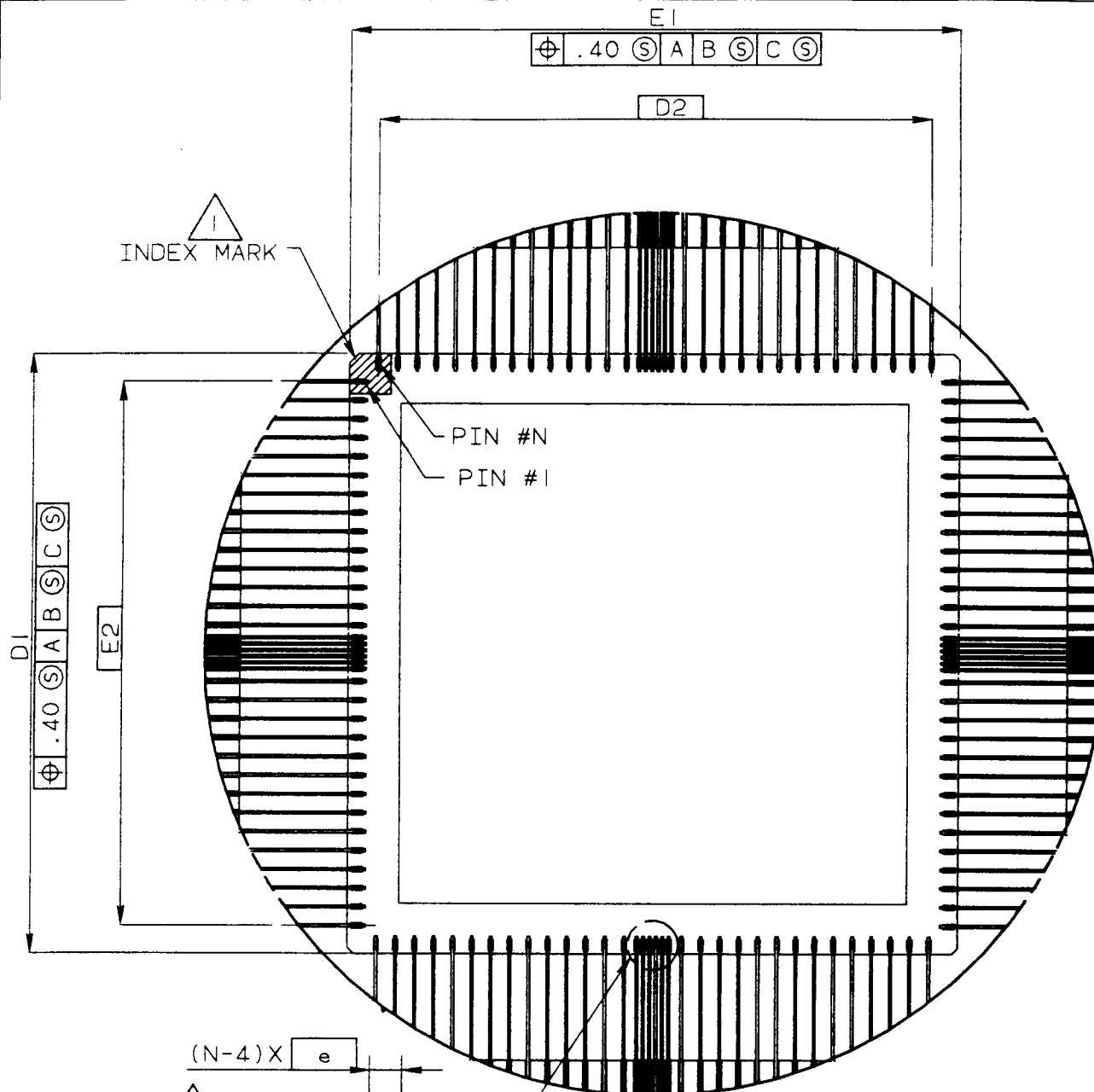
TITLE  
CERAMIC QUAD FLATPACK FAMILY  
(CQFP) 0.50 MM LEAD PITCH  
WITH CERAMIC NON-  
CONDUCTIVE TIE BAR

ISSUE  
A

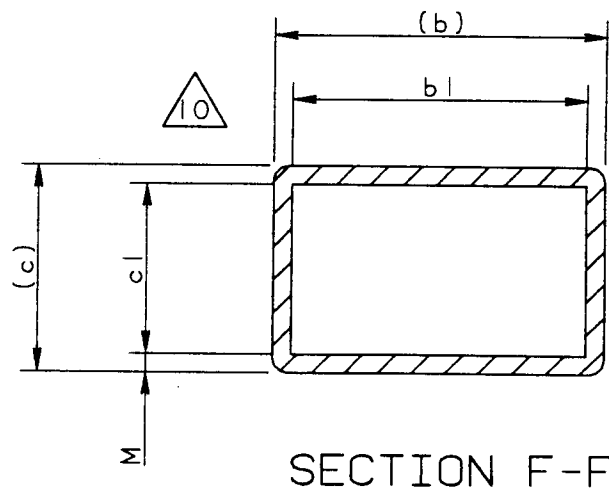
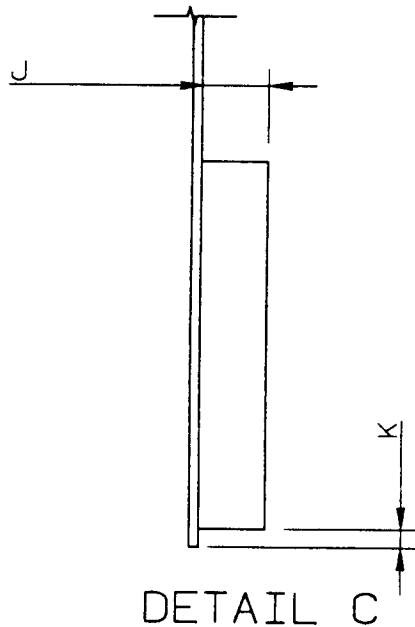
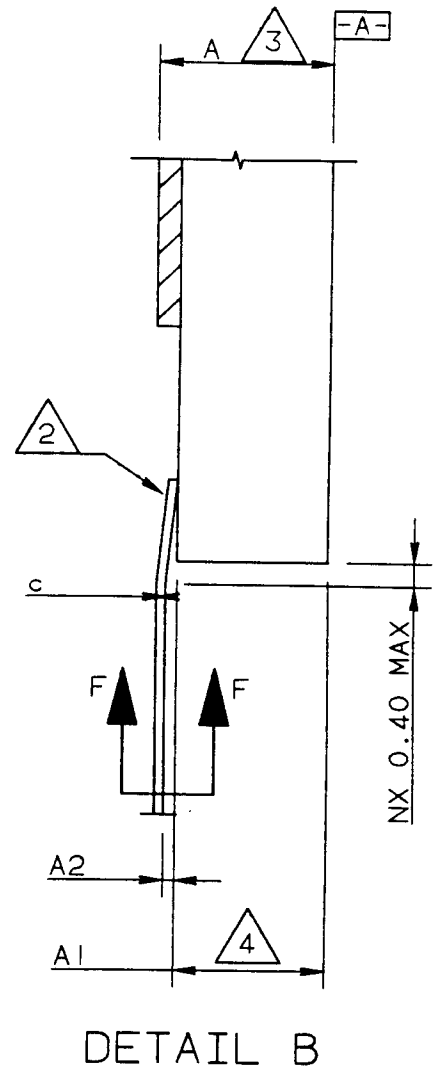
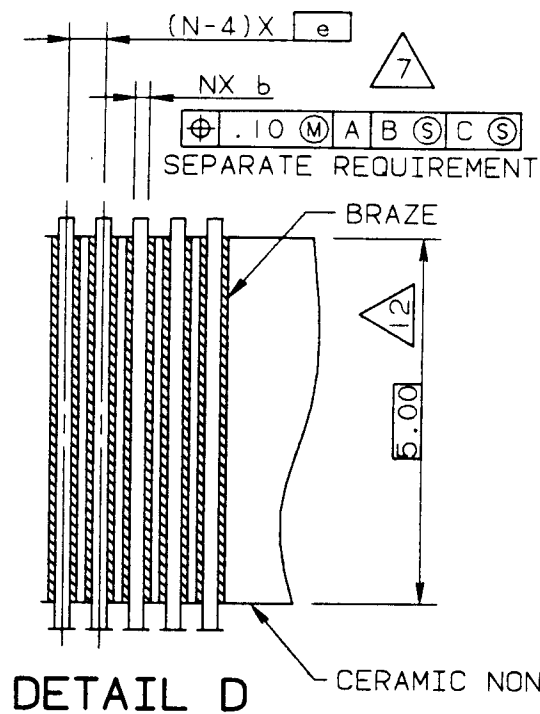
DATE  
May 92

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<p>JEDEC SOLID STATE PRODUCT OUTLINES</p>	<p>TITLE CERAMIC QUAD FLATPACK FAMILY (CQFP) 0.50 MM LEAD PITCH WITH CERAMIC NON- CONDUCTIVE TIE BAR</p>	<p>ISSUE A</p>	<p>DATE May 92</p>	<p>MO-134</p>	<p>PAGE 2 OF 6</p>
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COMMON DIMENSIONS  
DIMENSIONS ARE IN MILLIMETERS

SYMBOL	MIN.	NOM.	MAX.	NOTES
A	2.16	3.55	4.55	3
A1	2.00	3.19	4.00	4
A2	0.05	0.20	0.35	
b	0.19	0.21	0.25	
b1	0.18	0.20	0.22	10
c	0.11	0.16	0.20	
c1	0.10	0.15	0.17	10
e	0.50 BASIC			
G	1.45	1.50	1.55	
J	0.75	0.90	1.05	
K	---	---	0.50	
L	74.85	75.25	76.40	6
L1	74.60	75.00	75.40	
L2	55.60	56.30	57.00	
M	---	---	0.015	
NOTES	9, 13, 14			
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SYMBOL	VARIATION (ALL) DIMENSIONS ARE IN MILLIMETERS											
	AA			NOTE	AB			NOTE	AC			NOTE
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.		MIN.	NOM.	MAX.	
D1 E1	31.68	32.00	32.32		35.64	36.00	36.36		39.60	40.00	40.40	
D2 E2	27.5 BASIC				31.5 BASIC				35.5 BASIC			
F	6.85	7.75	8.65		6.85	7.75	8.65		4.5	5.0	5.5	
N	224			7	256			7	288			7
ND	56			8	64			8	72			8
R	12.50	-----	-----		10.90	-----	-----		11.60	-----	-----	
Y	19.20 BASIC				17.20 BASIC				15.20 BASIC			
NOTES	9, 13, 14											
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SYMBOL	VARIATION (ALL) DIMENSIONS ARE IN MILLIMETERS									
	AD			NOTE	AE			NOTE		
	MIN.	NOM.	MAX.		MIN.	NOM.	MAX.			
D1 E1	43.56	44.00	44.44		47.52	48.00	48.48			
D2 E2	39.5 BASIC				43.5 BASIC					
F	4.5	5.0	5.5		4.5	5.0	5.5			
N	320			7	352			7		
ND	80			8	88			8		
R	10.00	-----	-----		7.95	-----	-----			
Y	13.20 BASIC				11.20 BASIC					
NOTES	9, 13, 14									
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NOTES:

- 1 AN INDEX MARK SHALL BE LOCATED WITHIN THE SHADED AREA SHOWN.
- 2 GENERIC LEAD ATTACH DOGLEG DEPICTION. FLAT LEAD CONFIGURATION IS OPTIONAL.
- 3 INCLUDES HEATSINK OPTION. TOTAL THICKNESS INCLUDES LEAD ATTACH DOGLEG HEIGHT OR LID HEIGHT, WHICHEVER IS GREATER.
- 4 INCLUDES HEATSINK OPTION.
- 5 EDGE CHAMFERS ARE OPTIONAL. PIN #1 MAY HAVE OPTIONAL FEATURE (LARGE CHAMFER OR NOTCH) FOR MECHANICAL ORIENTATION PURPOSES.
- 6 DIMENSION L: DIMENSION L INCLUDES MAXIMUM LEAD TIP OVERHANG
7. DIMENSION N: NUMBER OF LEADS.
8. DIMENSION ND: NUMBER OF LEADS PER PACKAGE EDGE.
9. INTERPRET DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ANSI Y14.5M.
- 10 DIMENSION b1 AND c1 APPLY TO BASE METAL ONLY. DIMENSION M APPLIES TO PLATING THICKNESS.
- 11 CHAMFER TIE BAR APPLIES TO 224 AND 256 LEADCOUNTS ONLY. SQUARE TIE BAR APPLIES TO 288, 320 AND 352 LEADCOUNTS ONLY.
- 12 LEAD TIP POSITION SHALL BE MEASURED IN A ZONE 5MM IN LENGTH FROM EXTERNAL EDGE OF CERAMIC TIE BAR.
13. ALL DIMENSIONS ARE IN MILLIMETERS. TOLERANCE IS  $\pm 0.125$  MM UNLESS OTHERWISE SPECIFIED.
14. FEATURES NOT DIMENSIONED ARE PACKAGE SUPPLIER'S OPTION.

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