



	VARIATIONS											
SYMBOL	SYMBOL AA AB									C		
<b>{</b>	MIN	NDM	MAX	NOTE	MIN	NDM	MAX	NOTE	MIN		AM MC	
D E	0.890	0.900	0.935	18	0.990	1.000	1.035	18	1.090	1.1		
M	0.890	0.900	0.935	18	0.990	1.000	1.035	18	1.090	1.1	į.	
N			81	4 5		10	100	5		1:		4
Q	0.045		0.075	11	0.045		0.075	11	0.045			5
Qı	0.025		0.075	11	0.045		0.073	111	0.025	_	ı	5 11 11
S		0.000		21	0.023	0.050		21	0.023	0.0	- 1	21
NOTE	1.	2,3,6,8,1	7,21		<del></del>	01000	<del></del>	<del></del>	L	0.0	<u> </u>	
REF		tem 10-										
ISSUE		<u>A</u>										
						DI 4 TIE						
SYMBOL	<u> </u>	A T)			VF	RIATIO	12.					<del></del>
SIMPUL	MIN	AD NDM	MAX	NOTE	MIN	AE NDM	MAX	NOTE	MIN	Al NE		NOTE
D	1.190	1.200	1.235	18	1.290	1.300	1.335	18	1.390	1.4		
Ē	1.190	1.200	1.235	18	1.290	1.300	1.335	18	1.390	1.4		1 - 1
M		12		4		13		4		14	1	4
N			144	5			169	5			1	5
Q	0.045		0.075	11	0.045		0.075	11	0.045			
Q1	0.025			11	0.025			11	0.025		1	11
2		0.050		21		0.000		21		0.05	50	21
NOTE		2,3,6,8,1										
REF ISSUE	1.	tem 10- A	122	<del></del>								
TOOLE												
					\/ <b>∆</b>	RIATIO	70					
SYMBOL		AG				AH	<del></del>	1		Α,	i	
	MIN	NDM	MAX	NOTE	MIN	NDM	MAX	NOTE	MIN	ND		NOTE
D	1.490	1.500	1.535	18	1.590	1.600	1.635	18	1.690	1.70		
E	1.490	1.500	1.535	18	1.590	1.600	1.635	18	1.690	1.70	00   1.735	
M		15		4	<b></b> -	16		4		17	'	4
N			225	5			256	5			1 -02	5
Q	0.045		0.075	11	0.045		0.075	11	0.045		0.07	1 !
Q1	0.025			11	0.025			11	0.025		1	11
2		0.000		21		0.050		21		0.00	00	21
NOTE REF		2,3,6,8,1° em 10-						<del></del>				
ISSUE		A A	<u> </u>		·			·				
LISSUE												
	VARIATIONS											
SYMBOL		AK		1	<u>·</u>	AL				Al	M	
	MIN	NDM	MAX	NOTE	MIN	NDM	MAX	NOTE	MIN	ND	M MAX	
D	1.790	1.800	1.835	18	1.890	1.900	1.935	18	1.990	2.0	1	18
E	1.790	1.800	1.835	18	1.890	1.900	1.935	18	1.990	2.01		1 1
M		18		4		19		4		20		4
N			324	5			361	5			,00	5
Q	0.045		0.075	11	0.045		0.075	11	0.045		- 0.075	1 1
Q1 S	0.025	0.050		11	0.025	0.000		11	0.025	0.05	1	11
NOTE									1 51			
	REF Item 10-122  ISSUE A											
JEDEC TITLE: S-CPGA-P ISSUE: DATE: ITEM:							ITEM:	SHEET:				
SULID STATE PIN GRID ARRAY FAMILY						1		1			1	
		.10	00 INCH	PITCH	(SMALI	. DUTLI	(NE)	С	APF	₹	MD-066	3/6
PRODUCT	UO I LINE	-1						C	94	- 1	11L 000	1

SYMBOL	VARIATIONS											
	······································											
	MIN	NDM	MAX	NOTE	MIN	NDM	MAX	NOTE	NATAL		MAY	اــــــا
1	0.890	0.900	0.935						MIN	NUM	MAX	NOTE
D				18	0.990	1.000	1.035	18	1.090	1.100	1.135	18
Ε	0.890	0.900	0.935	18	0.990	1.000	1.035	18	1.090	1.100	1.135	18
M		9		4		10	<b></b>	4		11		4
N			81	5			100	5			121	5
Q	0.000		0.000	11	0.000		0.000	11	0.000		0.000	11
Q1	0.000		0.000	11	0.000		0.000	11	0.000		0.000	ii
S		0.000		21		0.050		21	0.000	l		
	<u> </u>		<u> </u>	<u> </u>		0.050		51		0.000		21
NOTE		2,3,6,8,1										
REF	1	<u>tem 10-</u>	·331									
ISSUE		В										
					VA	RIATIO	NS					
SYMBOL		BD				BE				BF		
	MIN	NDM	MAX	NOTE	MIN	NDM	MAX	NOTE	MIN	NOM	MAX	NOTE
D	1.190	1.200	1.235	18	1.290	1.300	1.335	18	1.390	1.400	1,435	18
Ē	1.190	1.200	1.235	18	1.290	1.300	1.335	18	1.390	1.400	1.435	18
M	1.190	1.200	1.233	1	1.290		l.	1 1			1.433	
				4		13		4		14		4
N			144	5			169	5			196	5
Q	0.000		0.000	11	0.000		0.000	11	0.000		0.000	11
Q1	0.000		0.000	11	0.000		0.000	11	0.000		0.000	11
2		0.050		21		0.000		21		0.050		21
NOTE	1.7	2,3,6,8,1	7.21		<u> </u>			<u> </u>			<del></del>	
REF		tem 10-										
ISSUE	<u>.</u>	B										
13305												
						DI4 ====	10					
	<del></del>				VA	RIATION	17.					
SYMBOL		BG				BH				BJ		]
	MIN	NDM	MAX	NOTE	MIN	MDM	MAX	NOTE	MIN	NDM	MAX	NOTE
D	1.490	1.500	1.535	18	1.590	1.600	1.635	18	1.690	1.700	1.735	18
Ε	1.490	1.500	1.535	18	1.590	1.600	1.635	18	1.690	1.700	1.735	18
M		15		4	1.070	16		4	1.070	17	1.,55	4
N			225	5		10	256	5			289	5
Q					0.000				0.000			
	0.000		0.000	11	0.000		0.000	11	0.000		0.000	11
Q1	0.000		0.000	11	0.000		0.000	11	0.000		0.000	11
2		0.000		21		0.050		21		0.000	<u> </u>	21
NOTE	1,2	2,3,6,8,1	7,21									
REF		em 10-										
ISSUE		В						***************************************				
					VA	RIATION	12					
SYMBOL [		ВK				BL				BM		
ľ	MIN	NDM	MAX	NOTE	MIN	MDM	MAX	NOTE	MIN	NDM	MAX	NOTE
D	1.790	1.800	1.835	18	1.890	1.900	1.935	18	1.990	2.000	2.035	18
Ē	1.790	1.800	1.835	18	1.890	1.900	1.935	18	1.990	2.000	2.035	18
M		18				1.900	1.733				2.033	4
		1		4			1	4		20	1	
N			324	5			361	5			400	5
Q	0.000		0.000	11	0.000		0.000	11	0.000		0.000	11
Q1	0.000		0.000	11	0.000		0.000	11	0.000		0.000	11
2		0.050	;	21		0.000		21		0.050		21
NOTE	F 1,2,3,6,8,17,21 F Item 10-331											
REF	1220F   P											
										T		01.555
REF		1	IFDEC TITLE: S-CPGA-P ISSUE: DATE: ITEM:								L*M.	CHET.
REF ISSUE			_					13306.	Duir.	1 1	E.Mir	SHEET
REF ISSUE			E: S N GRID			Y	ŀ	13302	DATE.	- 1 * '		SHEE!
REF ISSUE EDEC OLID STA		PI	N GRID	ARRAY	FAMIL'				ł	,	į	
REF ISSUE		PI	_	ARRAY	FAMIL'			C	APF	,	]-066	4/6

	NOTES:	TALOLL
	1 Dimensioning & Tolerancing per ANSI Y14.5M-1982.	INCH
	<ul><li>2 Refer to applicable symbol list.</li><li>3 Terminal position designation per JEDEC standard procedures</li></ul>	
	and practices, JESD 95-1, SPP-010.	
	4 Symbol 'M' is the pin matrix size.	
	5 Symbol "N" is the maximum allowable number of pins.	
	6 11x11 and 12x12 matrix sizes shown for illustration only.	
	Dimension "A" includes the package body and lid for both cavity and cavity down configurations. (See Figure 2, Page 2)	up
	Dimension 'A' does not include heatsinks or other attached featu	^es.
	Standoffs for variations AA through AM must be located on the pi	
	diagonals. The major dimension of the standoff shall be .045 inc	
I	minimum. There are no standoffs on variations BA-BM.	
	10 For variations AA-AM, the seating plane is defined by the outer surface facing away from the ceramic body (outer standoff surface	standoff >)
I	For variations BA-BM, the seating plane is defined by the user	
	nethod of application and thereby allows for no standoffs.	
l	1 Dimension "Q" is measured from the ceramic body to the outer sta	nd-
I	off surface and is applicable to both cavity up and cavity down	
l	configurations. Dimension 'Q1' is measured from the lid to the or	
l	standoff surface and is applicable to the cavity down configurat	on
	only. (See Figure 2, Page 2) All pins must be on .100 inch grid.	
	13 -C- Is the plane of pin to package interface for both cavity up	a = al
	\( down configurations. (See Figure 2, Page 2)	and
	See APPLICATION NOTE.	
	15 Pin tips should have a radius or chamfer. See APPLICATION NOTE.	
l	16 This dimension allows a 750 microinch thick coating for solder	
l	dipped parts. See APPLICATION NOTE.	
l	17 There must be some type of A1 corner identification on both top	and
l	bottom surfaces of the package. ID type is optional and may cons	
l	of notches, ID pins, metallized markings or other features. The	
	features used on each surface may be of different types.	
	$\sqrt{18}$ There must be .020 inch minimum spacing between any two metal $\wedge$ features on the package surface.	
	Dimension 'D' and 'E' do not include ceramic protrusions. Such	
	protrusions may not extend more than .003 inches on any side.	
	Corners and edges of the package body may have chamfers for	
	nechanical protection or identification.	
	This dimension defines the maximum size for the pin braze pads.	
	S is measured with respect to -A- and -B	
	22 All dimensions are in INCHES.	
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	JEDEC TITLE: S-CPGA-P ISSUE: DATE: ITEM:	SHEET
	SOLID STATE PIN GRID ARRAY FAMILY APR	
	PRODUCT OUTLINE 100 INCH PITCH (SMALL OUTLINE) C 94 MO-06	6 5/6

INCH

## APPLICATION NOTES:

- A. For applications where a PGA package is used in a socket, the following requirements may apply:
  - a. Pin tips must have a radius or chamfer.
  - b. Minimum pin length (dimension "L") must be .120".
  - c. Maximum pin diameter including finish should be .020",
- B. For military applications the pin length (dimension "L") range may be restricted to .120"/.140".
- C. All variations are suitable for single and multichip applications.

JEDEC	TITLE: S-CPGA-P	ISSUE:	DATE:	ITEM	SHEET
SOLID STATE PRODUCT DUTLINE	PIN GRID ARRAY FAMILY ,100 INCH PITCH (SMALL DUTLINE)	С	APR 94	MD-066	6/6