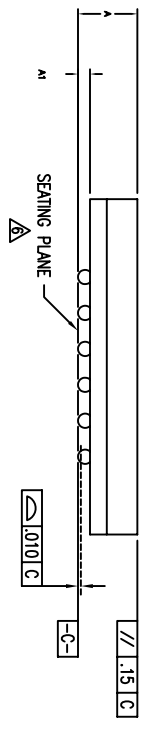
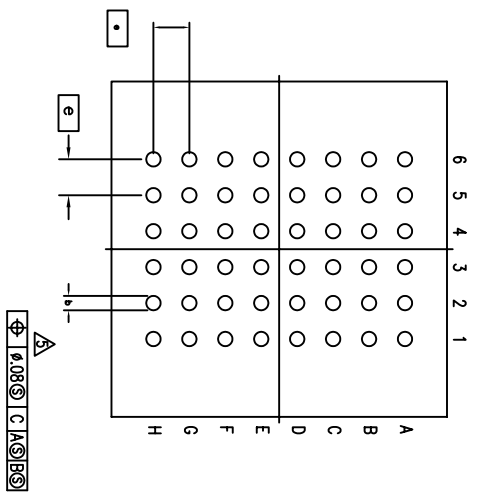
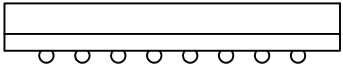
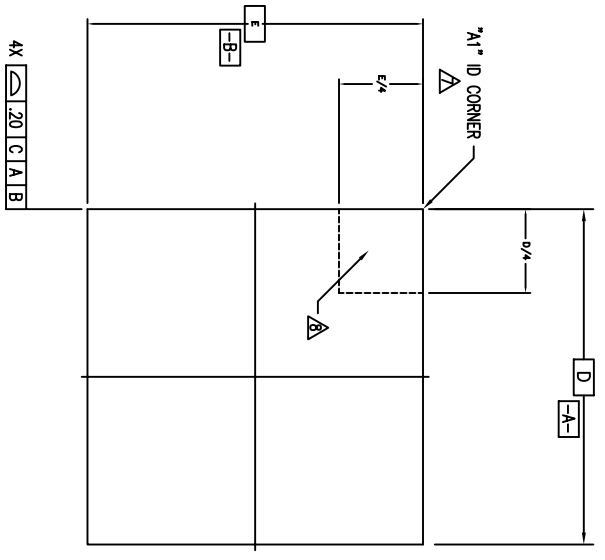


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
01	CHANGE PACKAGE DIMENSION	11/05/97	T. VU
02	CHANGE BALL COUNT FROM 46 TO 48	03/30/98	T. VU
03	OBSOLETE	11/08/01	T. VU
03	REMOVED	2/15/02	T. VU
04	ADD "GREEN" NOMENCLATURE	10/15/04	TU VU
05	COMBINE POD & LAND PATTERN	05/24/13	KS



TOLERANCES UNLESS SPECIFIED
 DECIMAL ± ANGULAR ±

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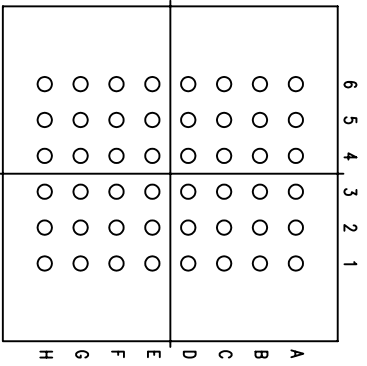
APPROVALS DATE TITLE
 DRAWN 3/9/09/28/97 7.0 X 7.0 mm BODY
 CHECKED FPBGA

SIZE DRAWING No. PSC-4061 REV 05
 DO NOT SCALE DRAWING SHEET 1 OF 3

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
01	CHANGE PACKAGE DIMENSION	11/05/97	T. VU
02	CHANGE BALL COUNT FROM 46 TO 48	03/30/98	T. VU
03S	OBSOLETED	11/08/01	T. VU
03	REVISED	2/15/02	T. VU
04	ADD "GREEN" NOMENCLATURE	10/15/04	TU VU
05	COMBINE POD & LAND PATTERN	05/24/13	KS

NOTES:

- 1 ALL DIMENSIONING AND TOLERANCING CONFORM TO ANSI Y14.5M-1982
- 2 "e" REPRESENTS THE BASIC SOLDER BALL GRID PITCH
- 3 "M" REPRESENTS THE MAXIMUM SOLDER BALL MATRIX SIZE
- 4 "N" REPRESENTS THE BALLCOUNT NUMBER
- 5 DIMENSION "b" IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM ---C---
- 6 SEATING PLANE AND PRIMARY DATUM ---C--- ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS
- 7 "A1" ID CORNER MUST BE IDENTIFIED BY CHAMFER, INK MARK, METALLIZED MARKING, INDENTATION OR OTHER FEATURE ON PACKAGE BODY
- 8 IF "A1" ID CORNER IS ON PACKAGE BODY, IT MUST BE LOCATED WITHIN THE ZONE INDICATED
- 9 ALL DIMENSIONS ARE IN MILLIMETERS

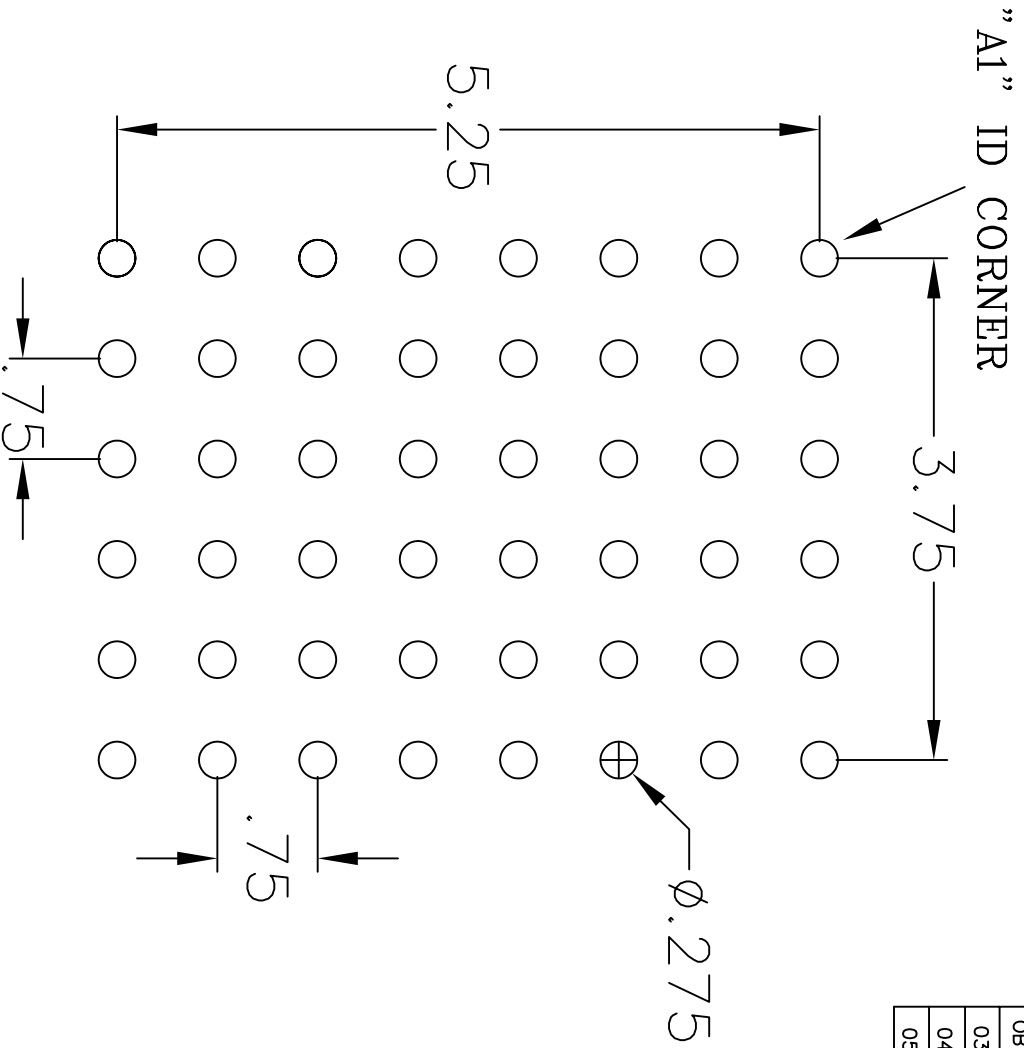


(48 BALL)

SYMBOL	JEDEC VARIATION			NOTE
	NOT YET REGISTERED	MIN	NOM	
A	1.14	1.24	1.34	
A1	.15	.20	.25	
D	7.00 BSC			
E	7.00 BSC			
M	6 X 8			3
N	48			4
e	.75 BSC			
b	.25	.30	.35	5
CENTER BALL MATRIX	N/A			


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DECIMAL	ANGULAR	SAN JOSE CA, 95138	
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xxxx±		FAX: (408) 284-8591	
xxxx±		www.IDT.com	
APPROVALS	DATE	TITLE	
DRAWN 97J	09/25/97	BF/BFG PACKAGE OUTLINE	
CHECKED		7.0 X 7.0 mm BODY	
		FPBGA	
SIZE	DRAWING No.	REV	
C	PSC-4061	05	
DO NOT SCALE DRAWING		SHEET 2 OF 3	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
01	CHANGE PACKAGE DIMENSION	11/05/97	T. VU
02	CHANGE BALL COUNT FROM 46 TO 48	03/30/98	T. VU
OBS	OBSOLETE	11/08/01	T. VU
03	REVISED	2/15/02	T. VU
04	ADD "GREEN" NOMENCLATURE	10/15/04	TU VU
05	COMBINE POD & LAND PATTERN	05/24/13	KS



RECOMMENDED LAND PATTERN DIMENSION

TOLERANCES UNLESS SPECIFIED		DATE		APPROVED	
DECIMAL	ANGULAR				
XXX±	F				
XXXX±					
XXXX±					
APPROVALS	DATE	TITLE	SIZE	DRAWING No.	REV
DRAWN <i>STJ</i>	09/25/97	BF/BFG PACKAGE OUTLINE	C	PSC-4061	05
CHECKED		FPBCA			
		DO NOT SCALE DRAWING		SHEET 3 OF 3	


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