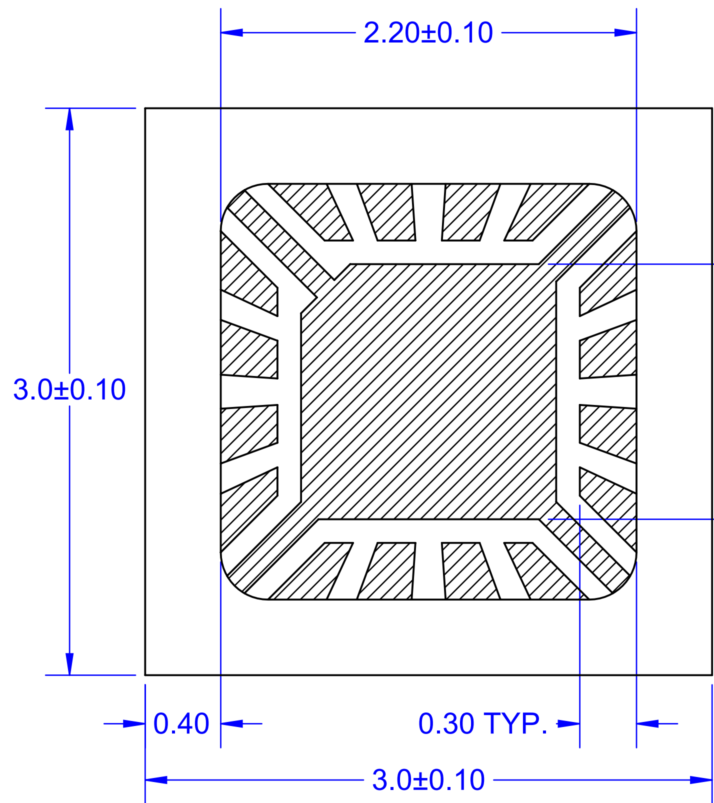
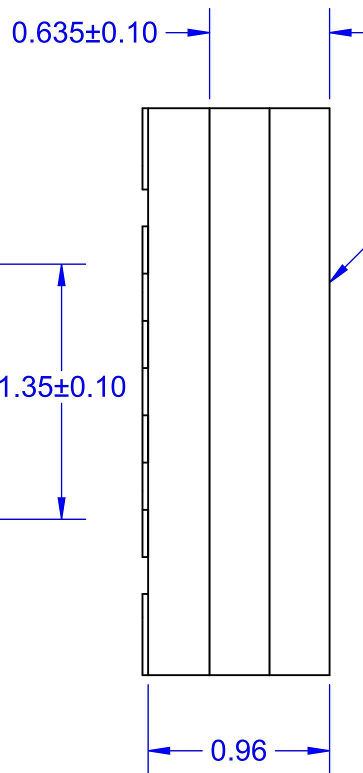
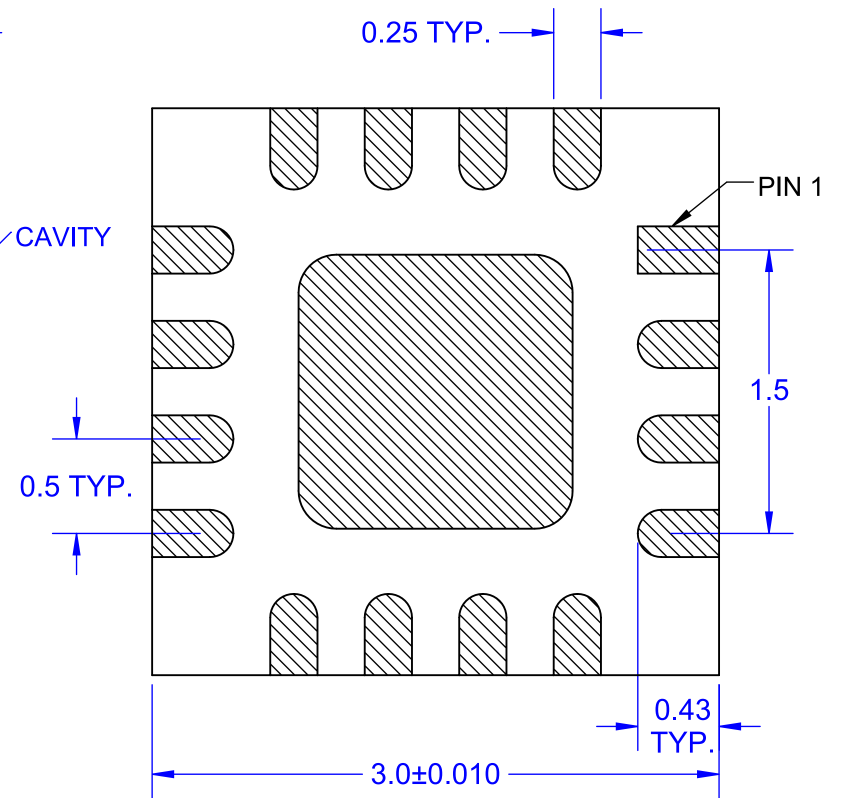
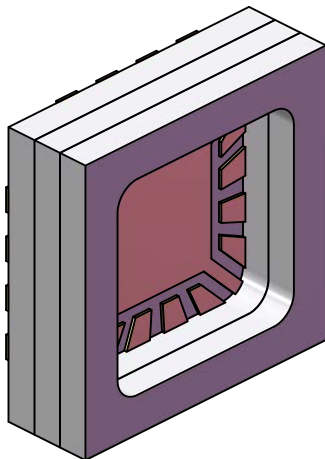
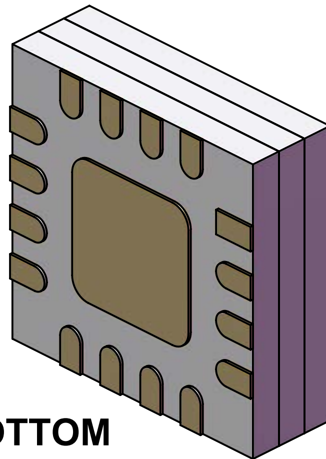




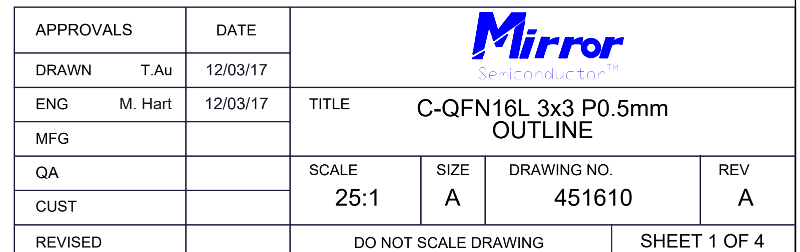


MODEL



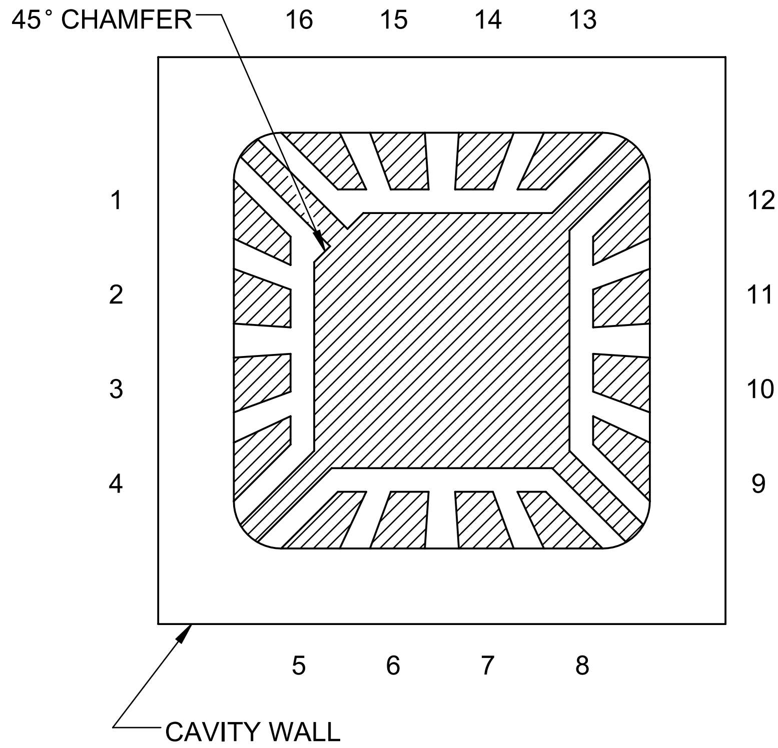


Notes:
1) BODY: CERAMIC Alumina Al_2O_3 WHITE. 94% MIN
2) PADS: NiPdAu.
3) BASE METAL TUNGSTEN.
4) CAVITY DEPTH: 0.635 ±0.010.
5) LID: CERAMIC BLACK OR WHITE.

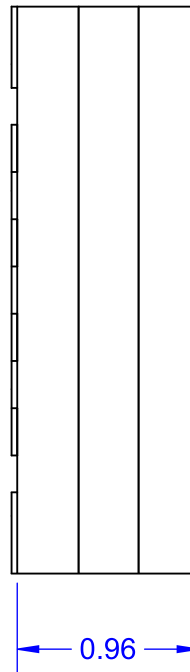


APPROVALS		DATE				
DRAWN	T.Au	12/03/17	Mirror Semiconductor™			
ENG	M. Hart	12/03/17	TITLE	C-QFN16L 3x3 P0.5mm OUTLINE		
MFG						
QA			SCALE 25:1	SIZE A	DRAWING NO. 451610	REV A
CUST						
REVISED			DO NOT SCALE DRAWING		SHEET 1 OF 4	

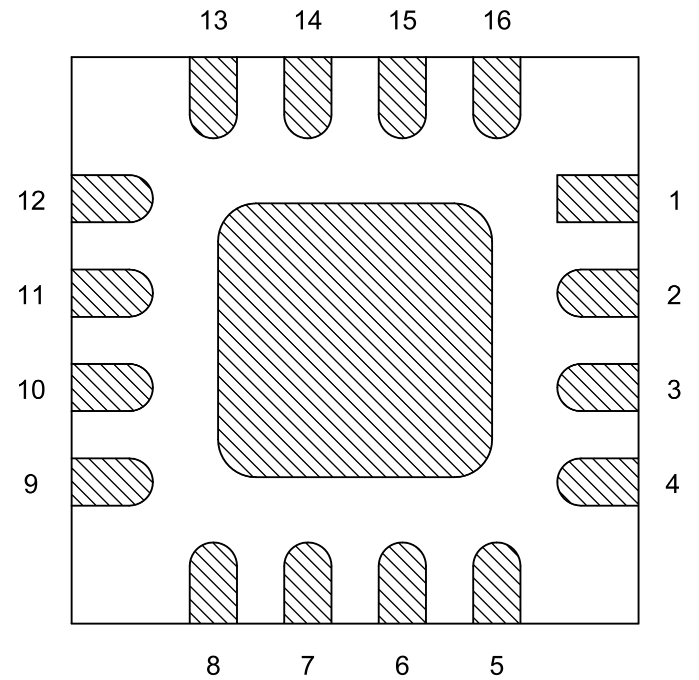
TOP VIEW



SIDE VIEW



BOTTOM VIEW



Mirror Semiconductor™

TITLE	C-QFN16L 3x3 P0.5mm OUTLINE		
SCALE 25:1	SIZE A	DRAWING NO. 451610	REV A
DO NOT SCALE DRAWING			SHEET 2 OF 4

BONDING DIAGRAM

CHAMFER 45°

16 15 14 13

1

2

3

4

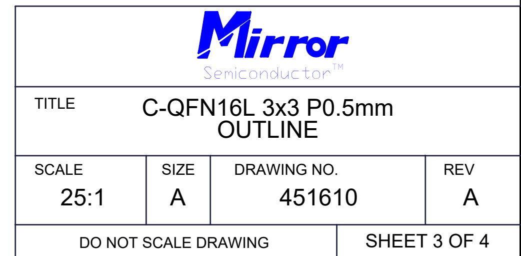
12

11

10

9

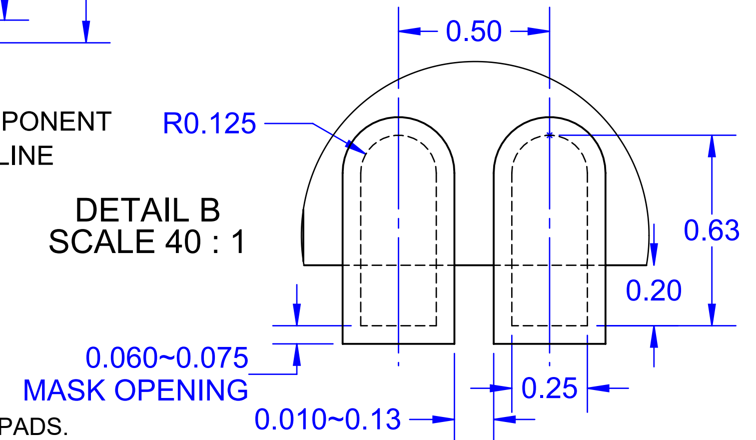
5 6 7 8



TITLE	C-QFN16L 3x3 P0.5mm OUTLINE		
SCALE 25:1	SIZE A	DRAWING NO. 451610	REV A
DO NOT SCALE DRAWING		SHEET 3 OF 4	

RECOMMENDED PC BOARD LAYOUT
DIMENSIONS IN MM

3.4
3
1.5
SOLDER MASK OPENING
PCB PAD
COMPONENT PAD
PIN 1
0.50
PCB THERMAL PAD
DESIGN OPTIONAL
SEE NOTE 7 & 8
3
3.4
1.5
1.25
1.45
SOLDER MASK OPENING
COMPONENT PAD
0.25
COMPONENT
OUTLINE
B



Notes: (Unless Otherwise Specified).
1) DIMENSIONS ARE PRESENTED ONLY AS A GUIDELINE.
DESIGNERS SHOULD USE THEIR OWN KNOWLEDGE BASE WHEN DESIGNING THE PCB.
2) SURROUND EACH SIDE OF I/O PERIMETER PADS WITH 0.060~0.075 mm (NSMD) SOLDER MASK
OPENING (2.4~3.0mils) OPTIONALLY OK TO USE RECTANGLE (NSMD) MASK OPENING AROUND I/O PADS.
3) ROUNDED PCB LAND PADS REDUCE SOLDER BRIDGING. PAD CHAMFER ANGLE MAY VARY.
4) PCB LANDS SHOULD BE 0.2mm LONGER THAN THE PACKAGE I/O PADS.
5) THE WIDTH OF PERIMETER PCB PADS SHOULD MATCH (1:1) THE WIDTH OF THE PACKAGE PADS.
6) REFER TO INDUSTRY REFERENCES SUCH AS IPC-SM-782 FOR PCB LAND PATTERN DESIGN.
7) THERMAL GROUND PADS MAY BE CHANGED TO SUITE REQUIREMENTS OF THE DESIGNER.
A) MAKE COPPER THERMAL PAD AS LARGE AS POSSIBLE.
B) DRILL MULTIPLE THERMAL VIAS 0.25~0.33mm DIAMETER USING 0.8~1.2mm PITCH GRID.
C) PLATE THERMAL VIA BARRELS WITH 1-OUNCE COPPER (18µm).
D) TENT (COVER) THERMAL VIAS WITH SOLDER MASK 0.1mm LARGER THAN THE VIA DIAMETER.
8) STENCIL DESIGN MAY BE CHANGED TO SUIT REQUIREMENTS OF THE DESIGNER.
A) LASER CUT STENCIL 0.125mm (5mil) THICK. APERTURE SIZE-TO-LAND RATIO OF 1:1.
B) THE SOLDER PASTE OPENING IN THE THERMAL PAD AREA SHOULD BE A MATRIX ARRAY OF
SMALLER APERTURES INSTEAD OF ONE LARGE APERTURE TO CONTROL PASTE AMOUNTS.
C) APPLY 50% TO 80% SOLDER PASTE COVERAGE IN THE PAD AREA.

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TITLE	C-QFN16L 3x3 P0.5mm OUTLINE		
SCALE	SIZE	DRAWING NO.	REV
25:1	A	451610	A
DO NOT SCALE DRAWING		SHEET 4 OF 4	