
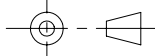
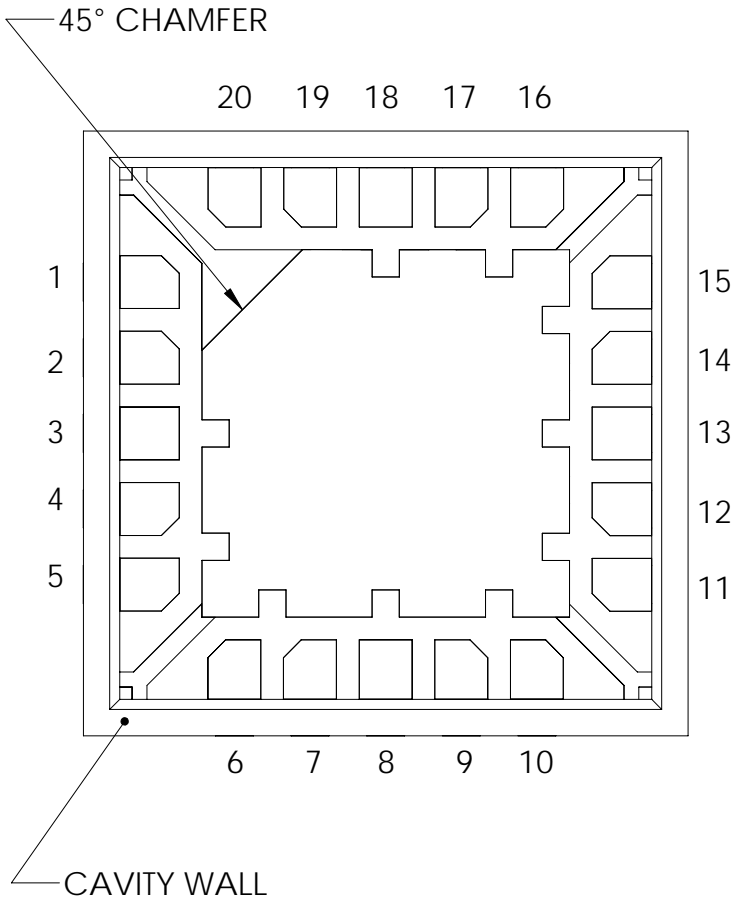


Notes: (Unless Otherwise Specified)

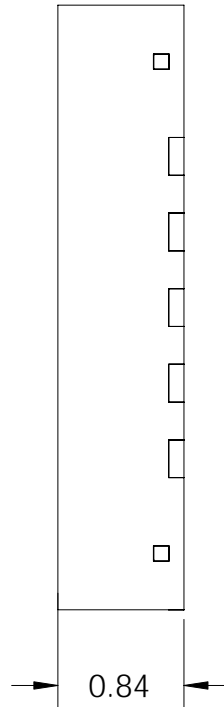
- 1) BODY; PLASTIC, SEMICONDUCTOR GRADE
- 2) LEAD FRAME: COPPER, C-194F/H
- 3) LEAD FRAME PLATING: Ni, Pd, Au
- 4) FRAME THICKNESS: 0.203mm
- 5) DIE PAD: 2.4 X 2.4mm
- 6) JEDEC OUTLINE: MO-220
- 7) DIMENSIONS: mm

TOLERANCE UNLESS NOTED		APPROVALS		DATE	 Mirror Semiconductor™			
X.X	± 0.05	DRAWN	MH	8/21/10				
X.XX	± 0.01	CHECKED						
X.XXX	± 0.005	ENG						
X.XXXX	± 0.0005	MFG						
ALL DIMENSIONS IN <input type="checkbox"/> INCHES <input checked="" type="checkbox"/> MILLIMETERS		Q.A.			SCALE 12:1	SIZE A	DWG. NO. 452050 M-QFN20W.5	REV A
THIRD ANGLE PROJECTION 		CUST						
		REVISED			DO NOT SCALE DRAWING			SHEET 1 OF 4

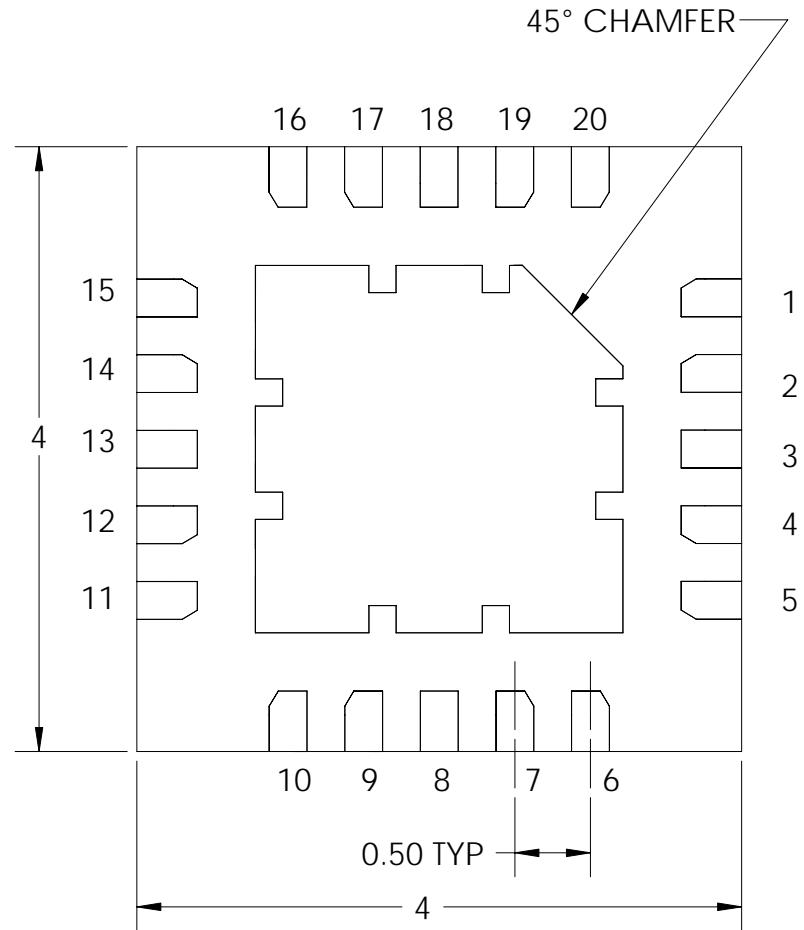
TOP VIEW



SIDE VIEW
(BEFORE LID ATTACH)



BOTTOM VIEW



TITLE:

20-LEAD 4mm P=0.5 mm
M-QFN CAVITY PACKAGE

SCALE
20:1

SIZE
A

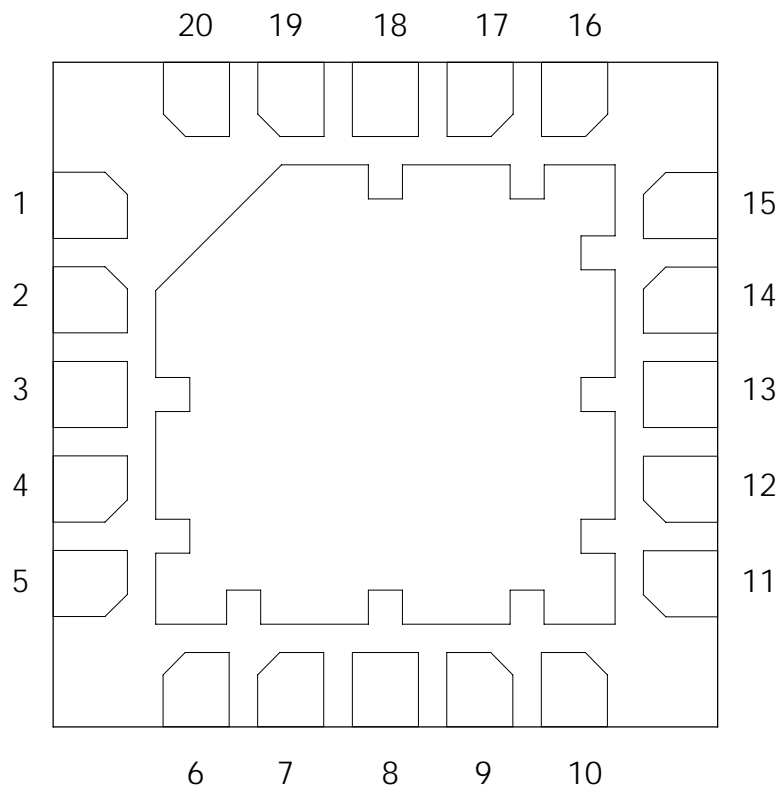
DWG. NO.
452050
M-QFN20W.5

REV
A

DO NOT SCALE DRAWING

SHEET 2 OF 4

BONDING DIAGRAM



TITLE:

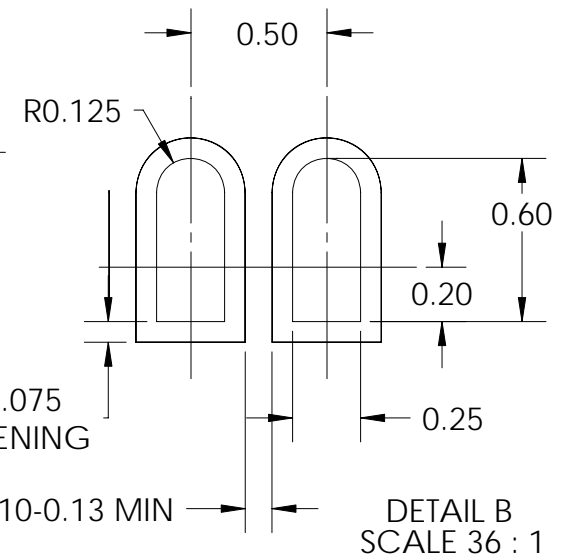
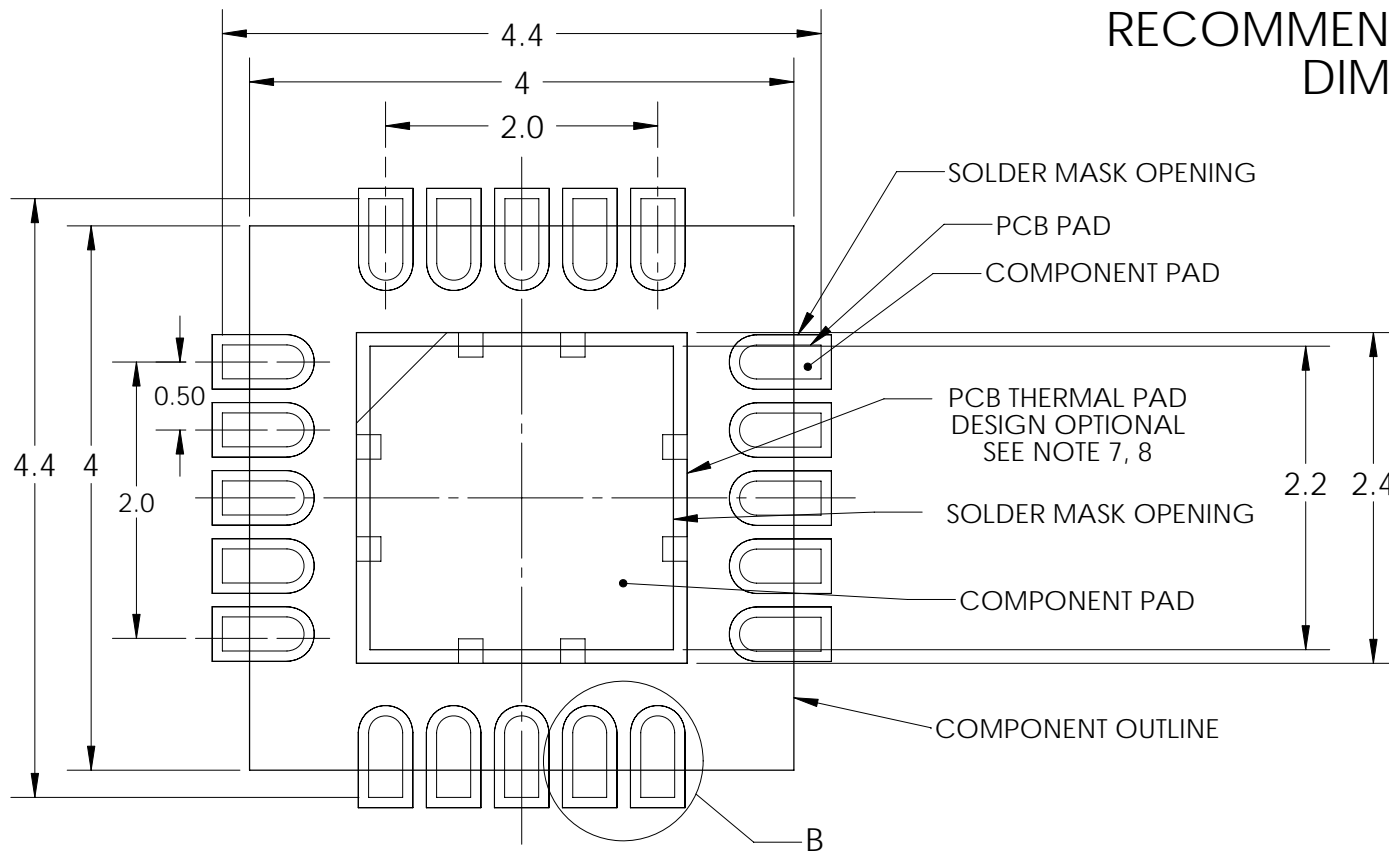
20-LEAD 4mm P=0.5 mm
M-QFN CAVITY PACKAGE

SCALE	SIZE	DWG. NO.	REV
18:1	A	452050 M-QFN20W.5	A

DO NOT SCALE DRAWING

SHEET 3 OF 4

RECOMMENDED PC BOARD LAYOUT DIMENSIONS IN MM



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 SAME WIDTH AS 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 THEN THE VIA DIAMETER.
- 8) STENCIL DESIGN MAY BE CHANGED TO SUITE 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 THERMAL PAD AREA.



TITLE:
20-LEAD 4mm P=0.5 mm
M-QFN CAVITY PACKAGE

SCALE	SIZE	DWG. NO.	REV
18:1	A	452050 M-QFN20W.5	A

DO NOT SCALE DRAWING SHEET 4 OF 4