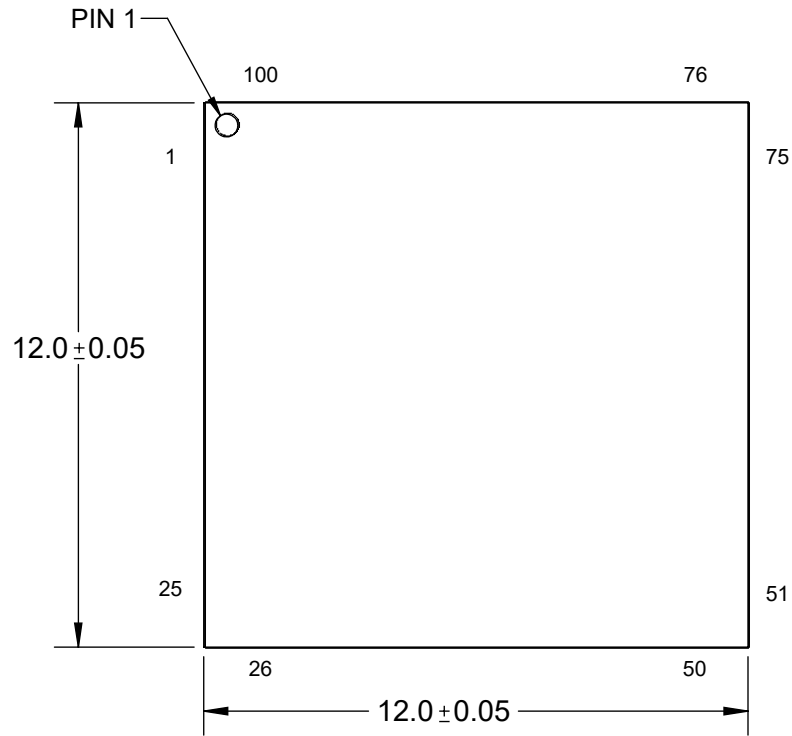
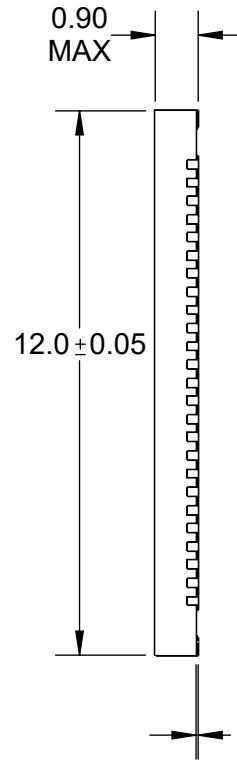


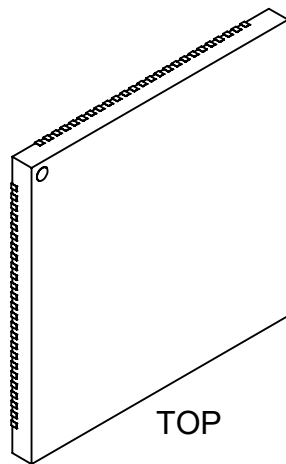
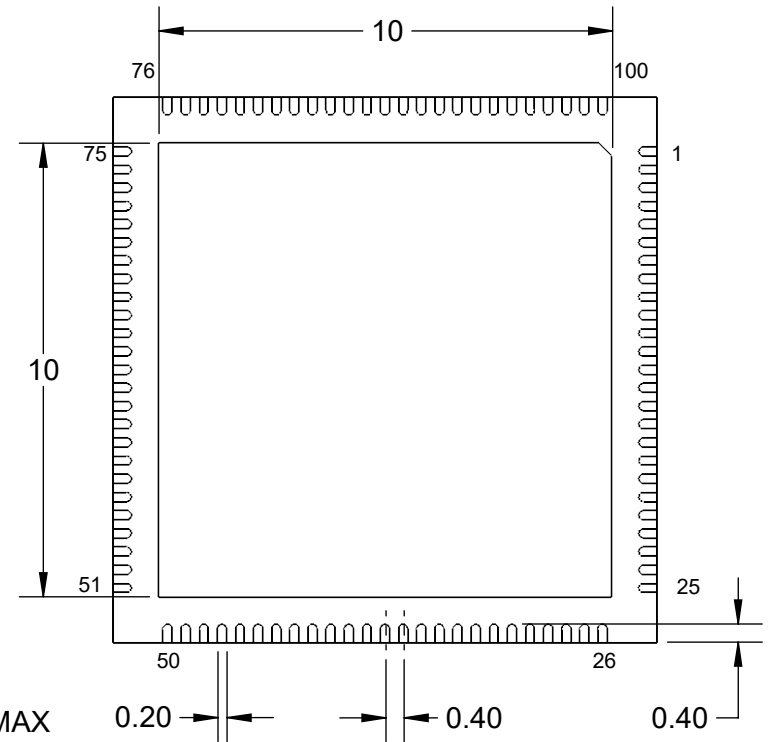
### TOP VIEW



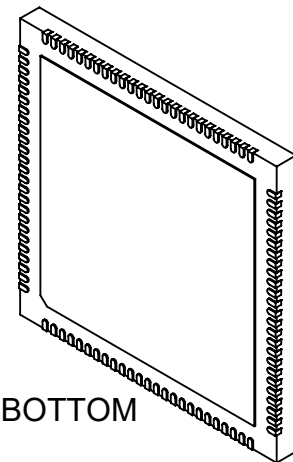
### SIDE VIEW



### BOTTOM VIEW



TOP



BOTTOM

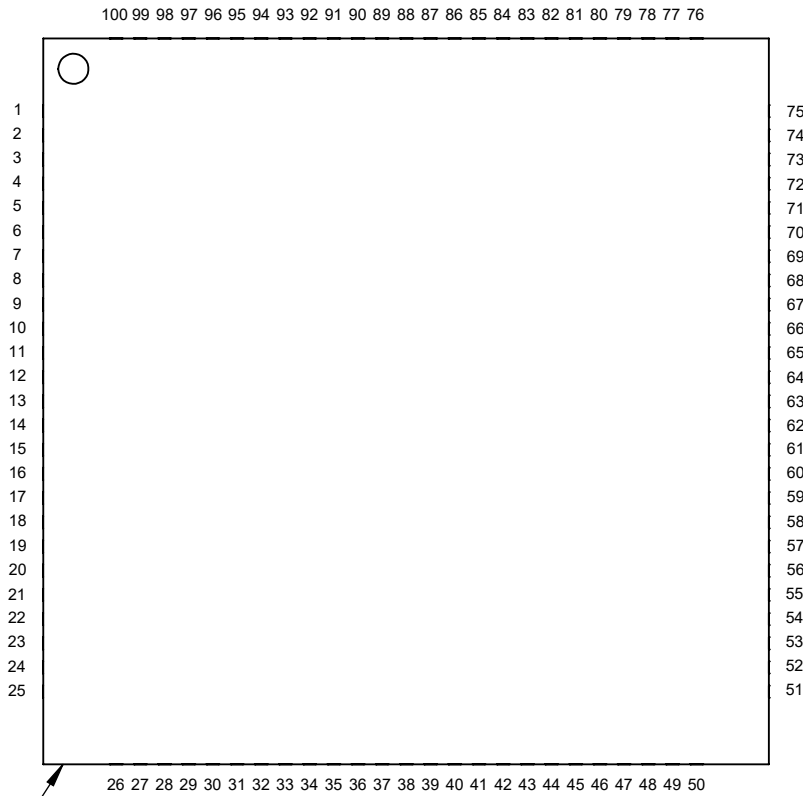
#### Notes: (Unless Otherwise Specified).

- 1) BODY: PLASTIC, SEMICONDUCTOR GRADE.
- 2) LEAD FRAME: COPPER, C-194 F/H.
- 3) LEAD FRAME PLATING: Sn 100 MATTE TIN.
- 4) FRAME THICKNESS: 0.203mm.
- 5) DIE PAD: 10 x 10mm EXPOSED BOTTOM.
- 6) JEDEC OUTLINE: MO-220.
- 7) DIMENSIONS IN mm.

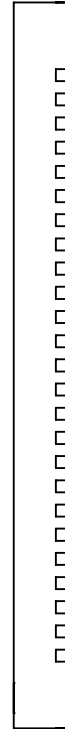
|             |           |   |      |             |              |
|-------------|-----------|---|------|-------------|--------------|
| APPROVALS   | DATE      | <b>TopLine®</b>                                 |      |             |              |
| DRAWN T.Au  | 3/13/2022 |   |      |             |              |
| ENG M. Hart | 3/13/2022 | TITLE 100-LEAD 12mm P0.4mm QFN ISOLATED CIRCUIT |      |             |              |
| MFG         |           | SCALE   | SIZE | DRAWING NO. | REV          |
| QA          |           | 6:1   | A    | 449901      | A            |
| CUST        |           | DO NOT SCALE DRAWING                            |      |             | SHEET 1 OF 5 |
| REVISED     |           |   |      |             |              |

# QFN ISOLATED CIRCUIT

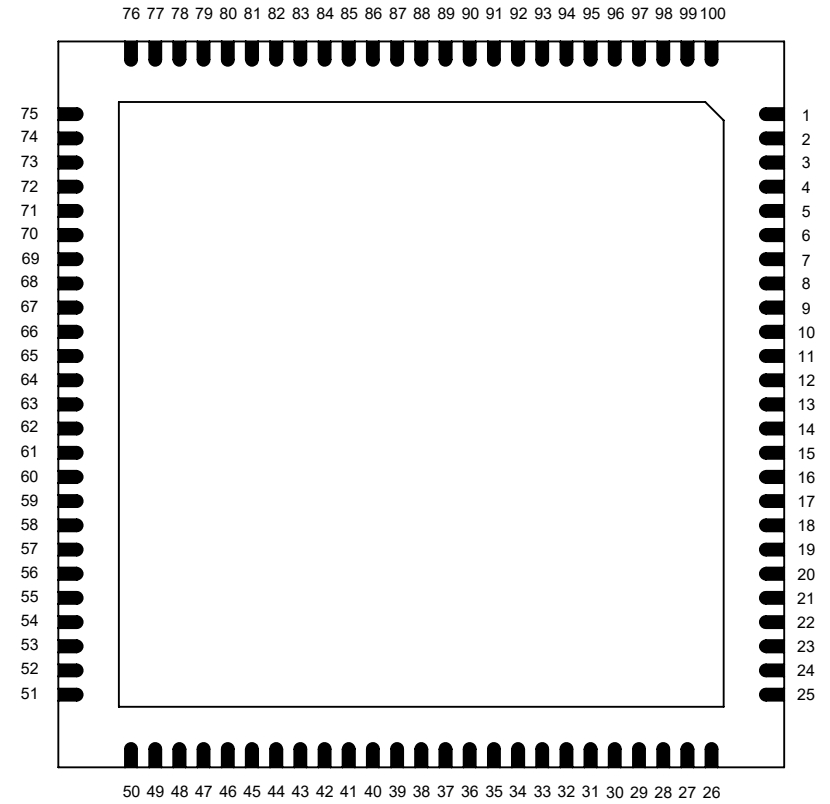
## TOP VIEW



## SIDE VIEW



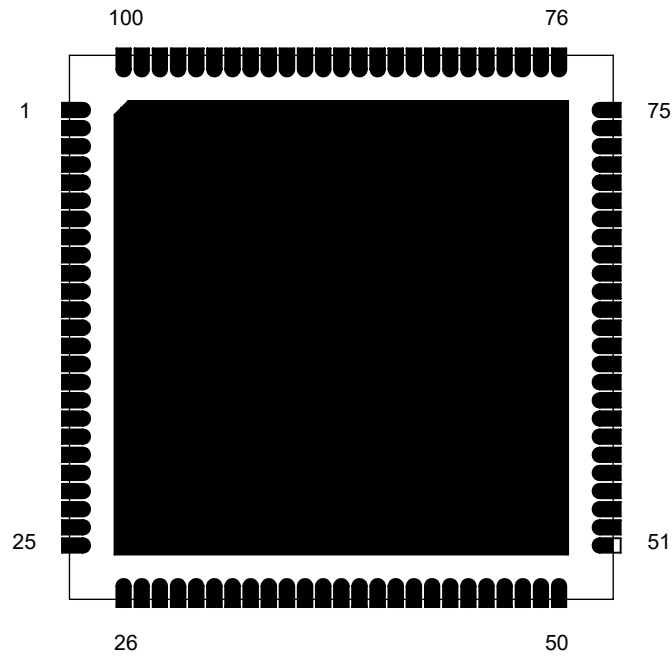
## BOTTOM VIEW



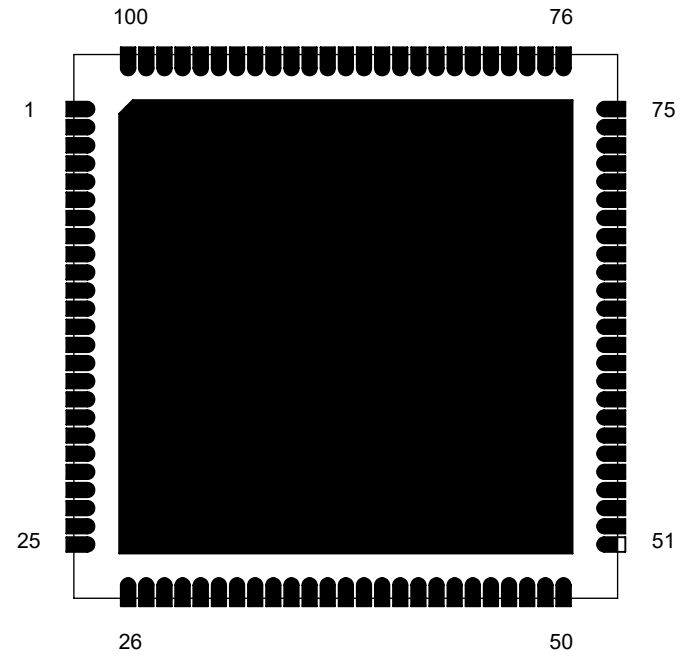
TOP SIDE ENCAPSULATION

NOTE:  
1. PACKAGE IS ELECTRICALLY ISOLATED WITHOUT INTERNAL CONNECTIONS.

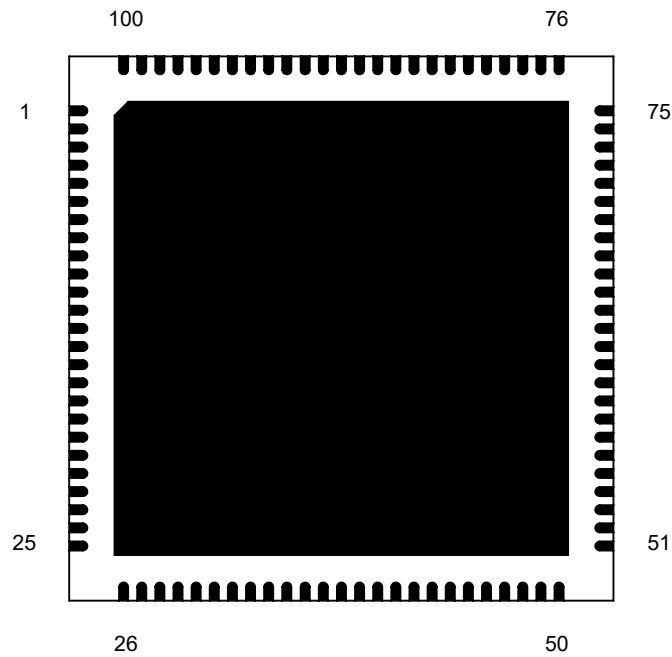
|                      |      |  |              |
|----------------------|------|--|--------------|
| <b>TopLine®</b>      |      |  |              |
| TITLE                |      | 100-LEAD 12mm P0.4mm<br>QFN ISOLATED CIRCUIT |              |
| SCALE                | SIZE | DRAWING NO.                                  | REV          |
| 8:1                  | A    | 449901                                       | A            |
| DO NOT SCALE DRAWING |      |  | SHEET 2 OF 5 |



RECOMMENDED  
PCB PADS



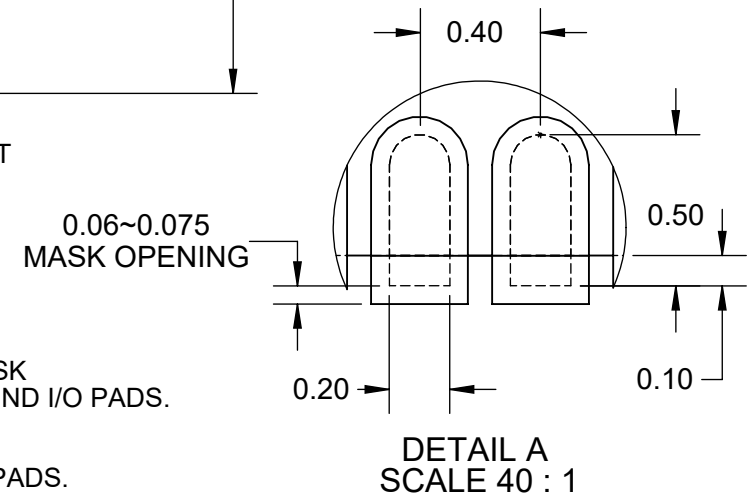
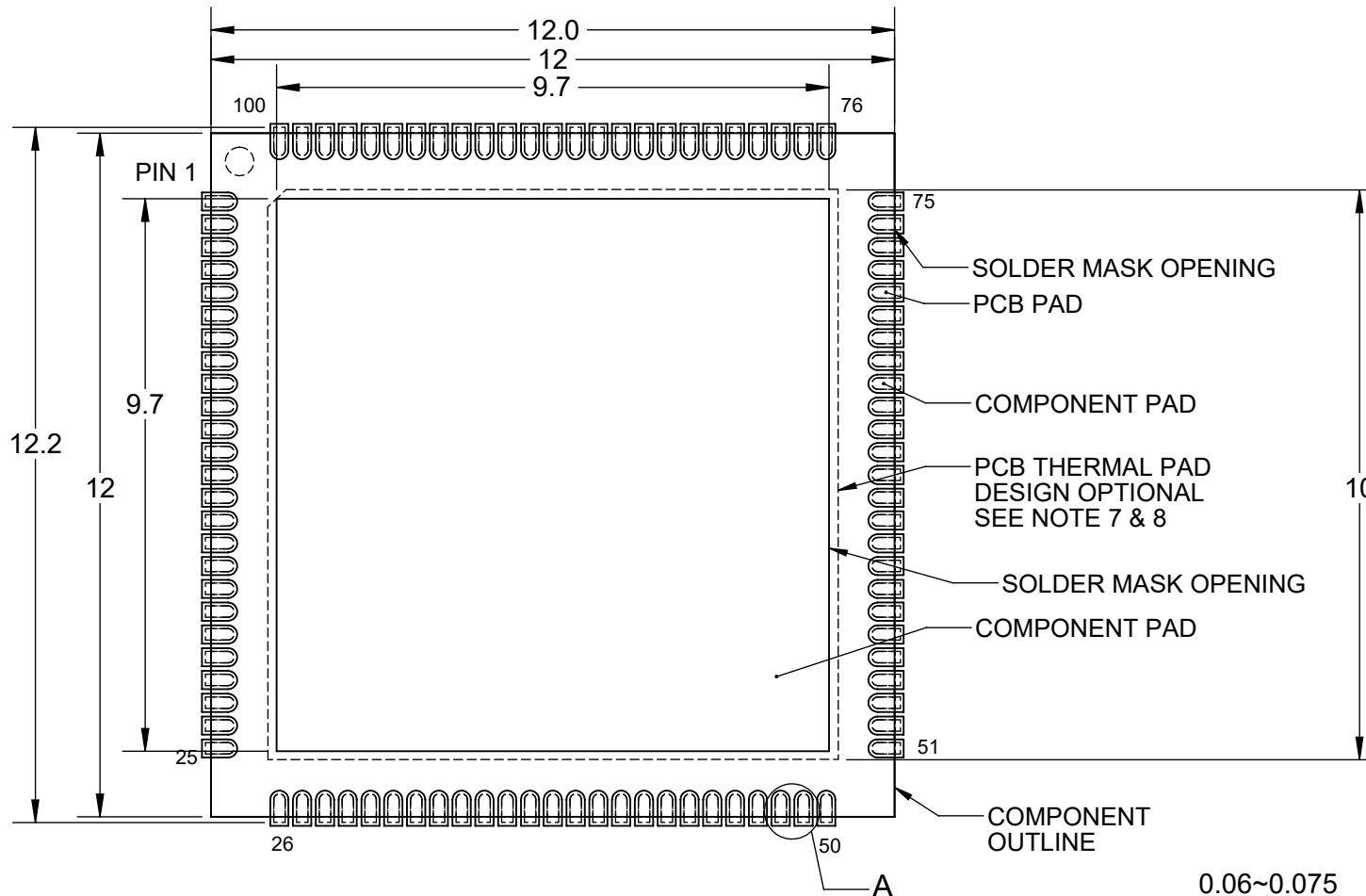
AFTER MOUNTING  
ON PCB



VIEW FROM TOP

|  |           |                       |              |
|--|-----------|-----------------------|--------------|
| <b>TopLine®</b>                                    |           |                       |              |
| TITLE 100-LEAD 12mm P0.4mm<br>QFN ISOLATED CIRCUIT |           |                       |              |
| SCALE<br>4:1                                       | SIZE<br>A | DRAWING NO.<br>449901 | REV<br>A     |
| DO NOT SCALE DRAWING                               |           |                       | SHEET 3 OF 5 |

## PC BOARD LAYOUT DIMENSIONS IN MM VIEW FROM TOP



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 SUIT 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 (18 $\mu$ m).
  - 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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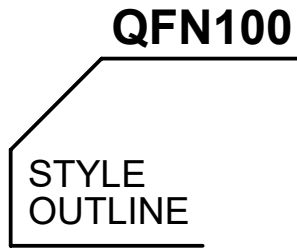
TITLE 100-LEAD 12mm P0.4mm  
QFN ISOLATED CIRCUIT

| SCALE | SIZE | DRAWING NO. | REV |
|-------|------|-------------|-----|
| 8:1   | A    | 449901      | A   |

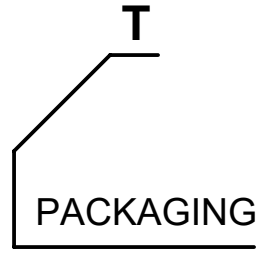
DO NOT SCALE DRAWING

SHEET 4 OF 5

## PART NUMBERING SYSTEM



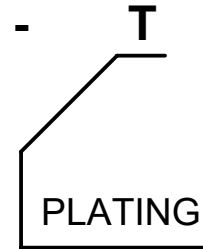
QUAD FLAT  
NO LEAD  
100 LEADS



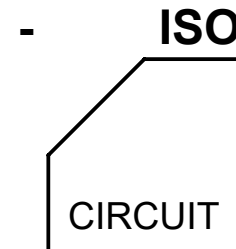
M = TUBE  
T = TRAY  
E = CUT TAPE  
E7A = 7" REEL



.4 = 0.4MM



F = Ni Pd Au  
T = MATTE TIN  
Sn100



ISO = ISOLATED

| PART NUMBER     | CIRCUIT  | PACKAGING  | RoHS<br>Pb-FREE | PLATING | DUMMY<br>DIE |
|-----------------|----------|------------|-----------------|---------|--------------|
| QFN100T.4-T-ISO | ISOLATED | JEDEC TRAY | YES             | Sn100   | NO           |
| QFN100M.4-T-ISO | ISOLATED | TUBE       | YES             | Sn100   | NO           |
| QFN100E.4-T-ISO | ISOLATED | TAPE       | YES             | Sn100   | NO           |
| QFN100T.4-F-ISO | ISOLATED | JEDEC TRAY | YES             | NiPdAu  | NO           |
| QFN100E.4-F-ISO | ISOLATED | TAPE       | YES             | NiPdAu  | NO           |

OTHER PART NUMBER COMBINATIONS AVAILABLE. CONTACT TOPLINE.

|  |           |                       |              |
|--|-----------|-----------------------|--------------|
| <b>TopLine®</b>                                    |           |                       |              |
| TITLE 100-LEAD 12mm P0.4mm<br>QFN ISOLATED CIRCUIT |           |                       |              |
| SCALE<br>NONE                                      | SIZE<br>A | DRAWING NO.<br>449901 | REV<br>A     |
| DO NOT SCALE DRAWING                               |           |                       | SHEET 5 OF 5 |