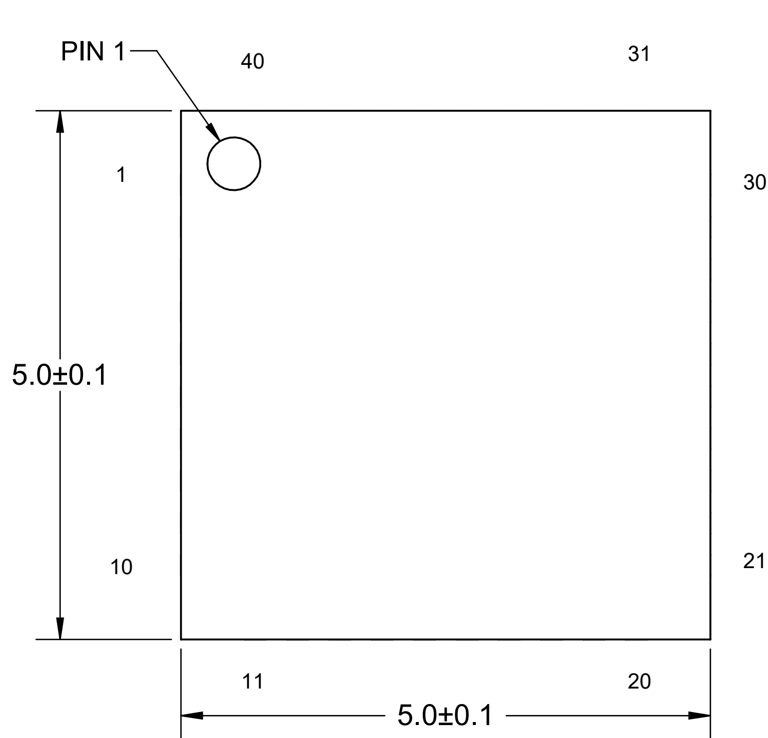
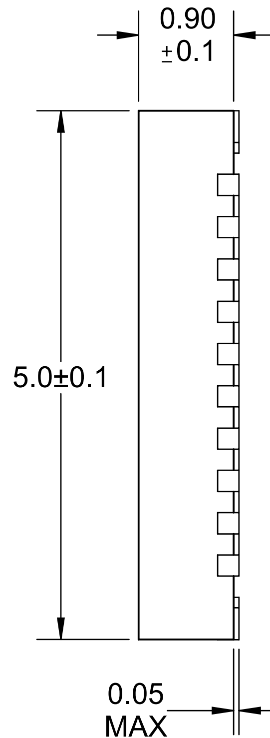
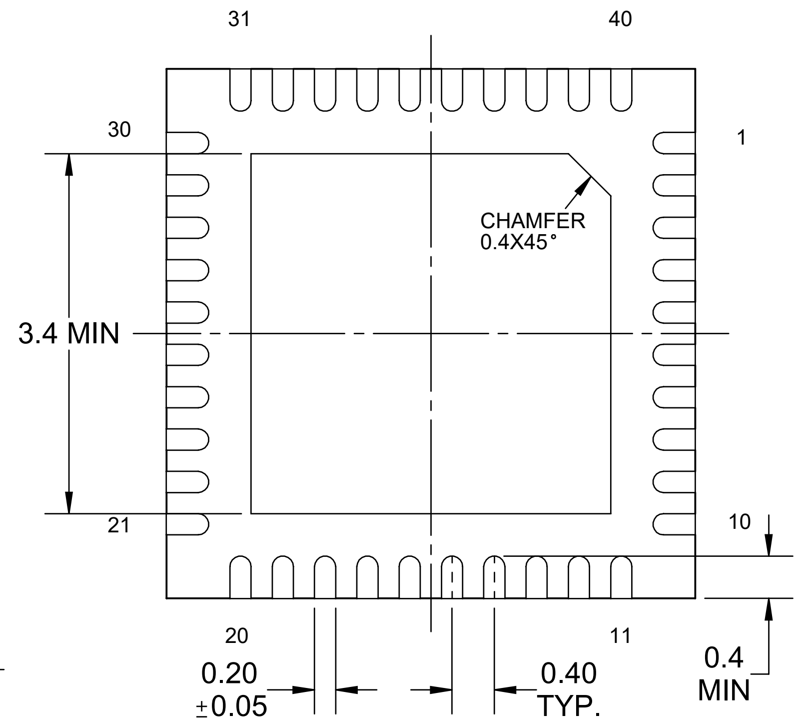
TOP VIEW



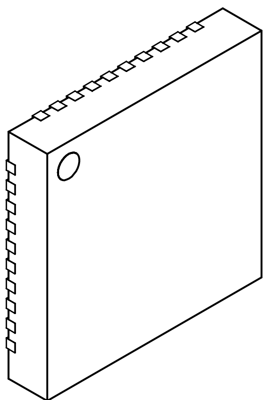
SIDE VIEW



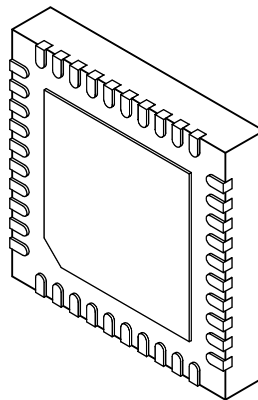
BOTTOM VIEW



MODEL



TOP

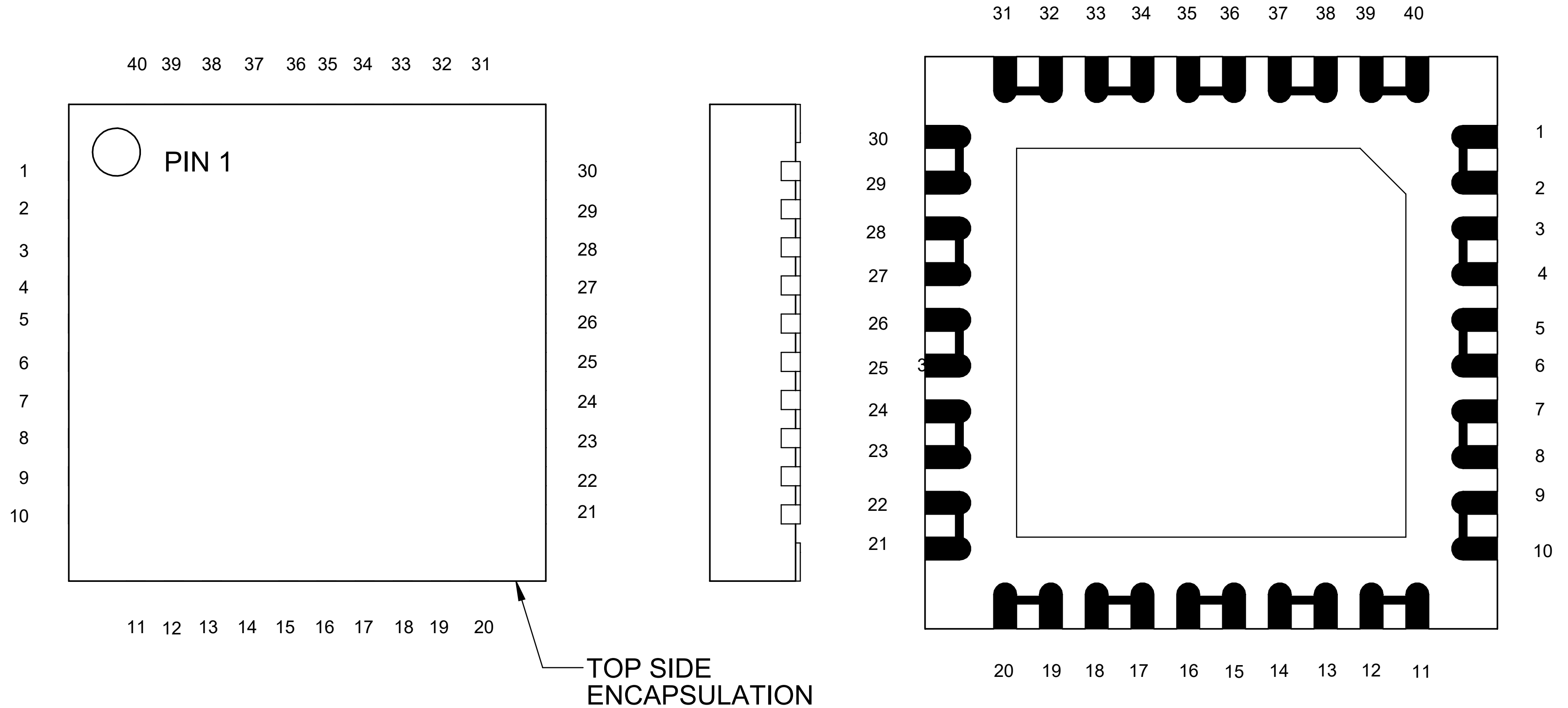


BOTTOM

Notes: (Unless Otherwise Specified).
1) BODY: PLASTIC, SEMICONDUCTOR GRADE.
2) LEAD FRAME: COPPER, C-194 F/H.
3) LEAD FRAME PLATING: Ni Pd Au.
4) FRAME THICKNESS: 0.203mm.
5) DIE PAD: 3.4 X 3.4mm EXPOSED BOTTOM.
6) JEDEC OUTLINE: MO-220.
7) DIMENSIONS mm.

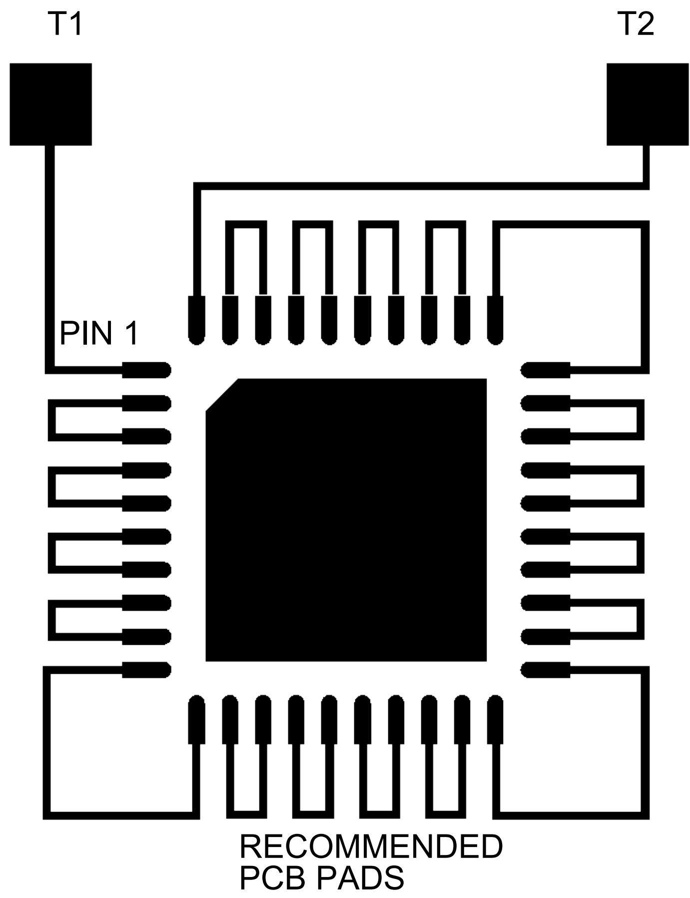
APPROVALS		DATE	TopLine®			
DRAWN	T. Au	04/07/2019				
ENG	M. Hart	04/07/2019	TITLE 40-LEAD 5mm P0.4mm QFN DAISY CHAIN			
MFG						
QA			SCALE 15:1	SIZE A	DRAWING NO. 444041	REV A
CUST						
REVISED			DO NOT SCALE DRAWING		SHEET 1 OF 5	

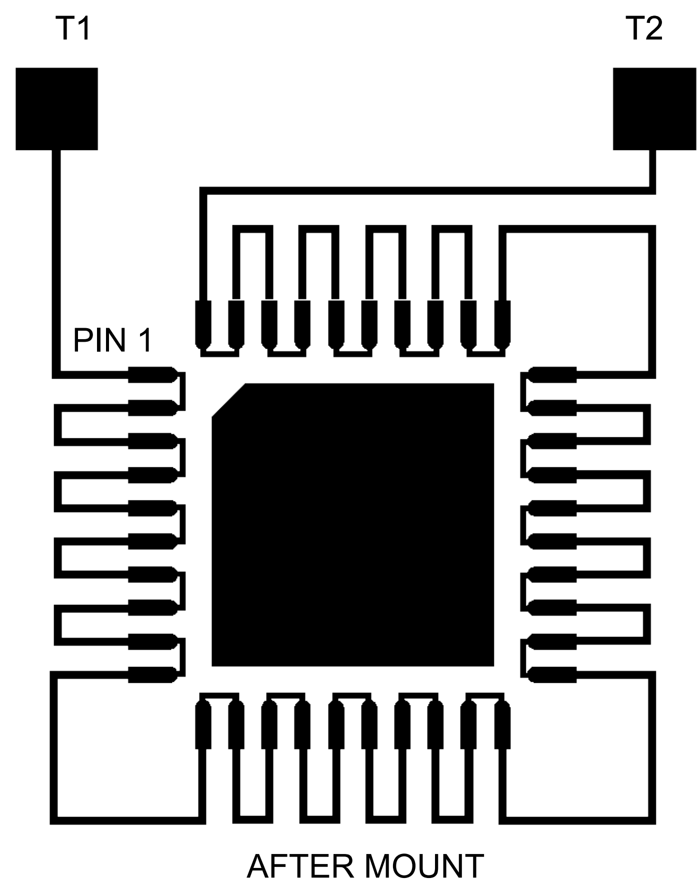
PAD PATTERN

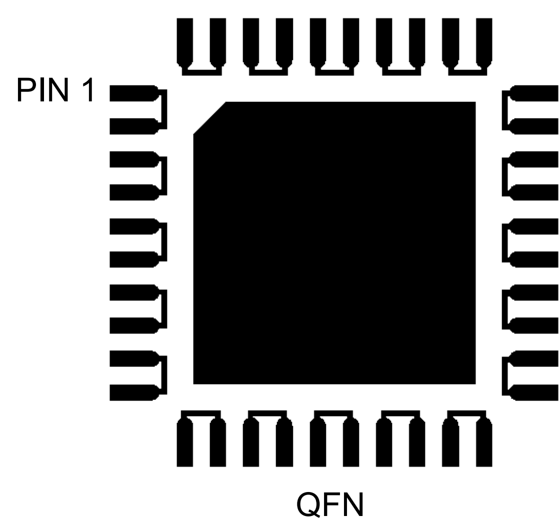


NOTE:
1. PACKAGE DAISY CHAIN BY WIRE BONDING TO INTERNAL BOND PADS

TopLine®			
TITLE	40-LEAD 5mm P0.4mm QFN DAISY CHAIN		
SCALE 16:1	SIZE A	DRAWING NO. 444041	REV A
DO NOT SCALE DRAWING		SHEET 2 OF 5	







DAISY CHAIN NET LIST

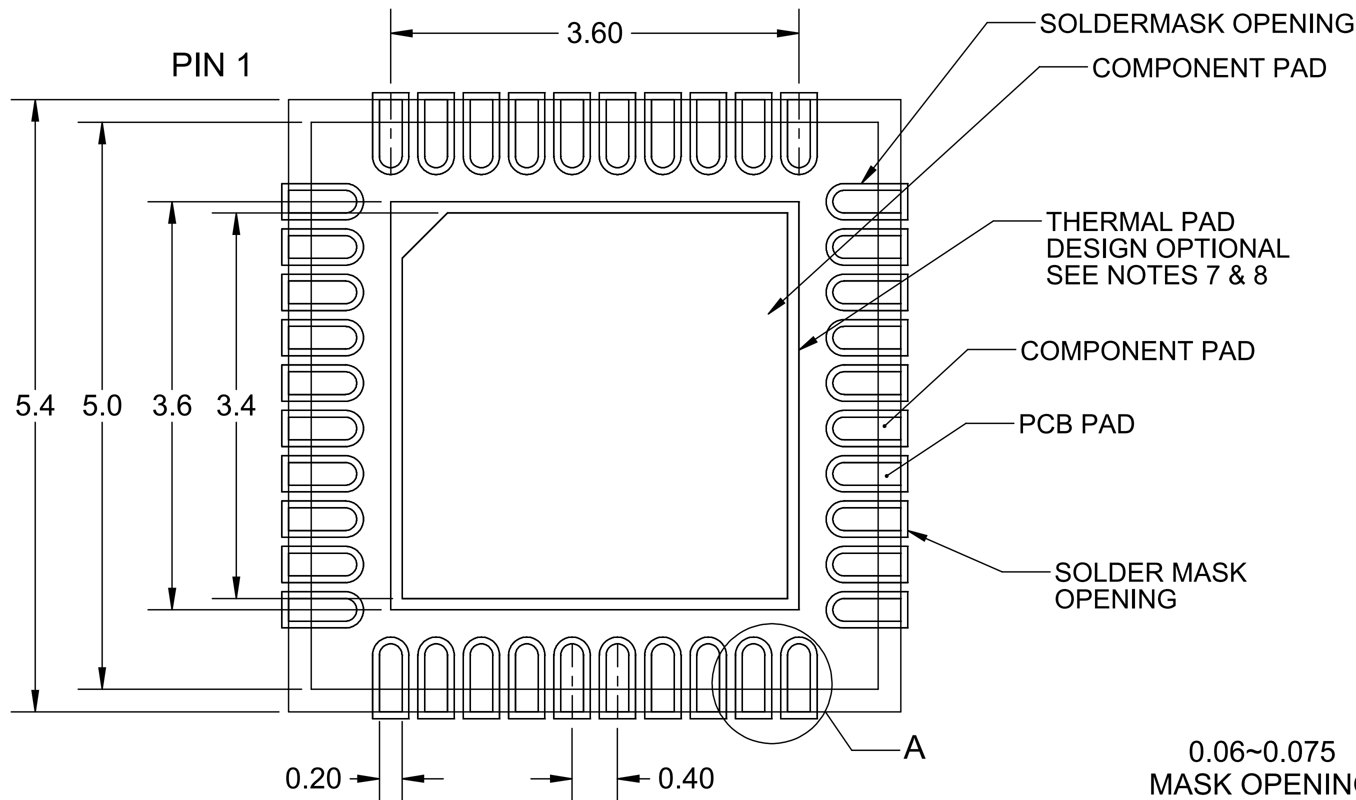
PINS	PINS	PINS
1 ~ 2	3 ~ 4	5 ~ 6
7 ~ 8	9 ~ 10	11 ~ 12
13 ~ 14	15 ~ 16	17 ~ 18
19 ~ 20	21 ~ 22	23 ~ 24
25 ~ 26	27 ~ 28	29 ~ 30
31 ~ 32	33 ~ 34	35 ~ 36
37 ~ 38	39 ~ 40	

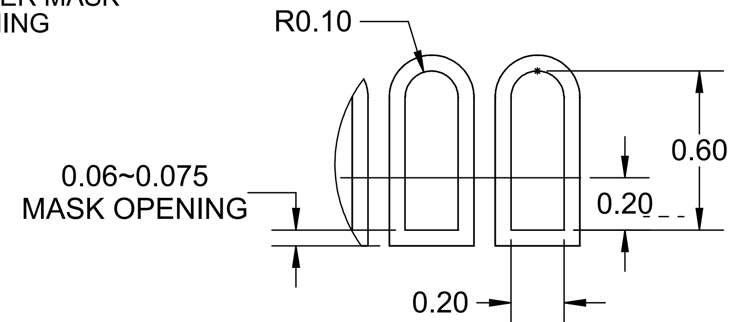
TopLine®

TITLE	40-LEAD 5mm P0.4mm QFN DAISY CHAIN		
SCALE 10:1	SIZE A	DRAWING NO. 444041	REV A

DO NOT SCALE DRAWING

PC BOARD LAYOUT
DIMENSIONS IN MM
VIEW FROM TOP





DETAIL A
SCALE 35 : 1

Notes: (Unless Otherwise Specified).

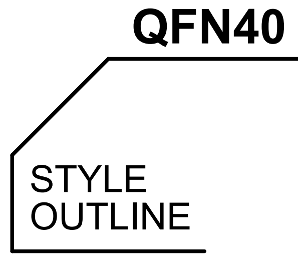
1) DIMENSIONS ARE PRESENTED ONLY AS A GUIDELINE.
   DESIGNERS SHOULD USE THEIR OWN KNOWLEDGE BASE WHEN DESIGNING THE PCB.
2) SURROUND EACH SIDE OF I/O PERIMETER PADS WITH 0.060~0.075 mm (NSMD) SOLDER MASK
   OPENING (2.4~3.0mils) OPTIONALLY OK TO USE RECTANGLE (NSMD) MASK OPENING AROUND I/O PADS.
3) 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 APERATURES INSTEAD OF ONE LARGE APERATURE TO CONTROL PASTE AMOUNTS.
   C) APPLY 50% TO 80% SOLDER PASTE COVERAGE IN THE PAD AREA.

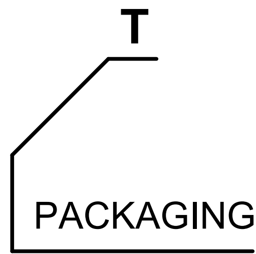
TopLine®

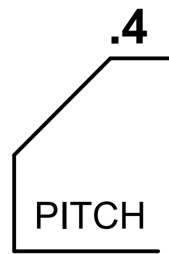
TITLE	40-LEAD 5mm P0.4mm QFN DAISY CHAIN		
SCALE 18:1	SIZE A	DRAWING NO. 444041	REV A
DO NOT SCALE DRAWING		SHEET 4 OF 5	

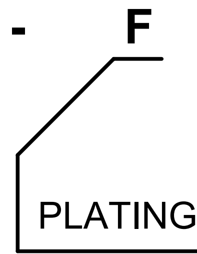
PART NUMBERING SYSTEM

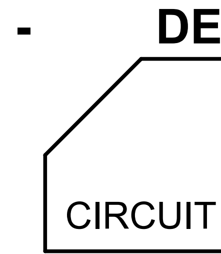
QFN40 T .4 - F - DE - D

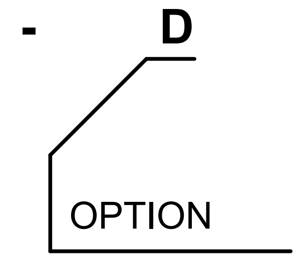












QUAD FLAT
NO LEAD
40 PIN

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

.4 = 0.4MM

F = NiPdAu

DE = DAISY CHAIN

ISO = ISOLATED

BLANK = DUMMY

BLANK = NONE

D = DUMMY DIE

PART NUMBER	CIRCUIT	PACKAGING	RoHS Pb-FREE	MSL LEVEL	DUMMY DIE
QFN40T.4-F-DE-D	DAISY CHAIN	JEDEC TRAY	YES	NiPdAu	YES
QFN40T.4-F-ISO	ISOLATED	JEDEC TRAY	YES	NiPdAu	NO
QFN40T.4-F-D	DUMMY	JEDEC TRAY	YES	NiPdAu	YES

OTHER PART NUMBER COMBINATIONS AVAILABLE. CONTACT TOPLINE.

TopLine®			
TITLE	40-LEAD 5mm P0.4mm QFN DAISY CHAIN		
SCALE: NONE	SIZE: A	DRAWING NO.: 444041	REV: A
DO NOT SCALE DRAWING		SHEET 5 OF 5	