

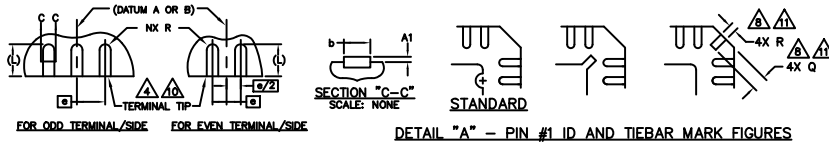
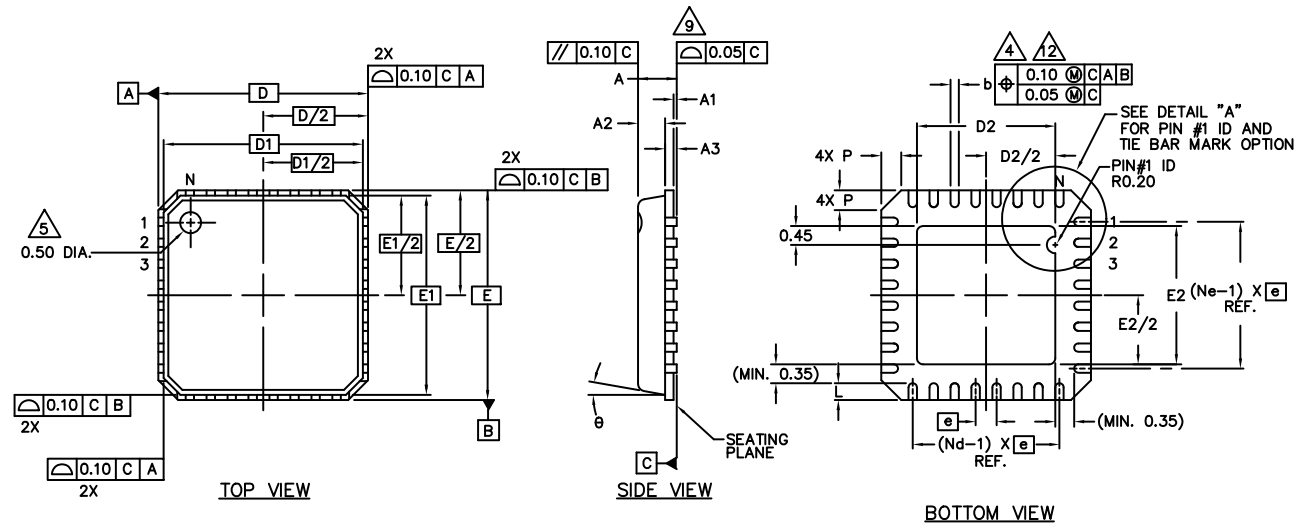
MECHANICAL CASE OUTLINE PACKAGE DIMENSIONS

ON Semiconductor®

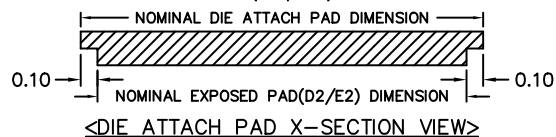
ON

NQFP 20, 5x5
CASE 560AK-01
ISSUE O

DATE 29 JUL 2008



GENERAL ; NOMINAL EXPOSED PAD(D2/E2) DIMENSION = NOMINAL DIE ATTACH PAD DIMENSION-0.20



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DESCRIPTION:	NQFP 20, 5X5	PAGE 1 OF 2

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SYMBOL	PITCH VARIATION A			N _{OTE}	SYMBOL	PITCH VARIATION B			N _{OTE}	SYMBOL	PITCH VARIATION C			N _{OTE}	SYMBOL	PITCH VARIATION D			N _{OTE}
	MIN.	NOM.	MAX.			MIN.	NOM.	MAX.			MIN.	NOM.	MAX.			MIN.	NOM.	MAX.	
ⓐ	0.80 BSC				ⓐ	0.65 BSC				ⓐ	0.50 BSC				ⓐ	0.50 BSC			
N	16			3	N	20			3	N	28			3	N	32			3
Nd	4			3	Nd	5			3	Nd	7			3	Nd	8			3
Ne	4			3	Ne	5			3	Ne	7			3	Ne	8			3
L	0.50	0.60	0.75		L	0.50	0.60	0.75		L	0.50	0.60	0.75		L	0.30	0.40	0.50	
b	0.28	0.33	0.40	4	b	0.23	0.28	0.35	4	b	0.18	0.23	0.30	4	b	0.18	0.23	0.30	4
D2	SEE EXPOSED PAD VARIATION: A,B				D2	SEE EXPOSED PAD VARIATION: A,B				D2	SEE EXPOSED PAD VARIATION: A,B				D2	SEE EXPOSED PAD VARIATION: B,C,D			
E2	SEE EXPOSED PAD VARIATION: A,B				E2	SEE EXPOSED PAD VARIATION: A,B				E2	SEE EXPOSED PAD VARIATION: A,B				E2	SEE EXPOSED PAD VARIATION: B,C,D			

* NOT DESIGNED YET
** DESIGNED BUT NOT TOOLED UP

SYMBOL	PITCH VARIATION E			N _{OTE}
	MIN.	NOM.	MAX.	
ⓐ	0.40 BSC			
N	36			3
Nd	9			3
Ne	9			3
L	0.30	0.40	0.50	
b	0.15	0.20	0.25	4,12
D2	SEE EXPOSED PAD VARIATION: *			
E2	SEE EXPOSED PAD VARIATION: *			


SYMBOL	COMMON DIMENSIONS			N _{OTE}
	MIN.	NOM.	MAX.	
A	0.80	0.85	0.90	
A1	0.00	0.01	0.05	10
A2	0.60	0.65	0.70	
A3	0.20 REF.			
D	5.00 BSC			
D1	4.75 BSC			
E	5.00 BSC			
E1	4.75 BSC			
θ	0	—	12°	
P	0.24	0.42	0.60	
Q	0.30	0.40	0.65	8,11
R	0.13	0.17	0.23	8,11

STANDARD>

SYMBOLS		D2			E2			NOTE
		MIN	NOM	MAX	MIN	NOM	MAX	
EXPOSED PAD VARIATIONS	A	2.60	2.70	2.80	2.60	2.70	2.80	
	B	3.00	3.10	3.20	3.00	3.10	3.20	
	C	3.20	3.30	3.40	3.20	3.30	3.40	
	D	3.40	3.50	3.60	3.40	3.50	3.60	

- NOTES:
1. DIE THICKNESS ALLOWABLE IS 0.305mm MAXIMUM(.012 INCHES MAXIMUM)
 2. DIMENSIONING & TOLERANCES CONFORM TO ASME Y14.5M. — 1994.
 3. N IS THE NUMBER OF TERMINALS.
Nd IS THE NUMBER OF TERMINALS IN X-DIRECTION &
Ne IS THE NUMBER OF TERMINALS IN Y-DIRECTION.
 4. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.15 AND 0.30mm FROM TERMINAL TIP.
 5. THE PIN #1 IDENTIFIER MUST BE EXISTED ON THE TOP SURFACE OF THE PACKAGE BY USING INDENTATION MARK OR OTHER FEATURE OF PACKAGE BODY.
 6. EXACT SHAPE AND SIZE OF THIS FEATURE IS OPTIONAL.
 7. ALL DIMENSIONS ARE IN MILLIMETERS.
 8. THE SHAPE SHOWN ON FOUR CORNERS ARE NOT ACTUAL I/O.
 9. BILATERAL COPLANARITY ZONE APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS.
 10. APPLIED ONLY FOR TERMINALS.
 11. Q AND R APPLIES ONLY FOR STRAGHT TIEBAR SHAPES.
 12. FOR 0.40mm LEAD PITCH, THE LEAD POSITION TOLERANCE MUST BE 0.07mm AT THE ACTUAL MEAN VALUE OF BODY SIZE.

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DESCRIPTION:	NQFP 20, 5X5	PAGE 2 OF 2

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