

NCP81270

Controllers - Single-Phase Voltage Regulator for Computing Applications

Overview

The NCP81270x is a high-performance, low-bias current, single-phase regulator with integrated power MOSFET driver. Operating in high switching frequency up to 600 kHz allows employing small size inductor and capacitors. The controller makes use of onsemi's patented high performance RPM operation. RPM control maximizes transient response while allowing for smooth transitions between discontinuous-frequency-scaling operation and continuous-mode full-power operation. The NCP81270x has an ultra-low offset current monitor amplifier with programmable offset compensation for high-accuracy current monitoring.

Applications - Computing - Desktop, Notebook, AIO

End Products - Computing - Desktop, Notebook, AIO products

Features –

- High Performance RPM Control System
- Differential Remote Output Voltage Sensing
- 4.5v to 21V Vin

Product List

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<input type="checkbox"/>	Product ↑	Status	CAD Models	Compliance ?	Package Type ↑↓	Case Outline	MSL Type	MSL Temp (°C)	Container Type	Container Qty.	Topology ?	Phases
<input type="checkbox"/>	<div>NCP81270CMNTXG</div> <div><div>Sample or Buy</div></div>	Active		<div>Pb</div> <div>A</div> <div>H</div> <div>P</div>	QFN-20	485EE	1	260	REEL	4000	-	-
<input type="checkbox"/>	<div>NCP81270DMNTXG</div> <div><div>Sample or Buy</div></div>	Active		<div>Pb</div> <div>A</div> <div>H</div> <div>P</div>	QFN-20	485EE	1	260	REEL	4000	-	-
<input type="checkbox"/>	<div>NCP81270MNTXG</div> <div><div>Sample or Buy</div></div>	Active		<div>Pb</div> <div>A</div> <div>H</div> <div>P</div>	QFN-20	485EE	1	260	REEL	4000	-	-

MECHANICAL CASE OUTLINE PACKAGE DIMENSIONS

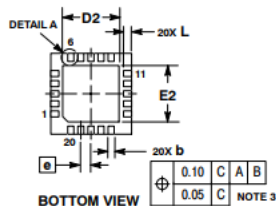
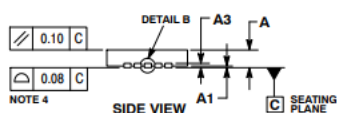
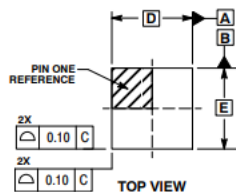
ON Semiconductor®



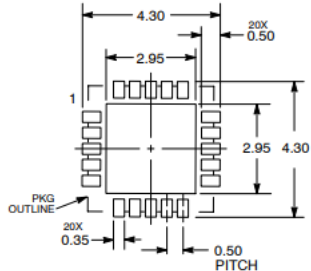
SCALE 2:1

QFN20 4x4, 0.5P
CASE 485EE
ISSUE A

DATE 20 NOV 2015



SOLDERING FOOTPRINT*

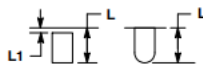


DIMENSIONS: MILLIMETERS

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERSM.



DETAIL B
ALTERNATE CONSTRUCTIONS



DETAIL A
ALTERNATE TERMINAL CONSTRUCTIONS

NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.15 AND 0.30 MM FROM THE TERMINAL TIP.
4. COPLANARITY APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS.

DIM	MIN	MAX
A	0.80	1.00
A1	0.00	0.05
A3	0.20 REF	
b	0.25	0.35
D	4.00 BSC	
D2	2.75	2.85
E	4.00 BSC	
E2	2.75	2.85
e	0.50 BSC	
L	0.25	0.35
L1	0.00	0.15

GENERIC MARKING DIAGRAM*



XXXXXX= Specific Device Code

- A = Assembly Location
- L = Wafer Lot
- Y = Year
- W = Work Week
- = Pb-Free Package

(Note: Microdot may be in either location)
*This information is generic. Please refer to device data sheet for actual part marking.
Pb-Free indicator, "G" or microdot "•", may or may not be present.