

### FEATURES

- Low Ripple and Noise
- Single and Dual Outputs
- Ultra Miniature SIP: 12 Pin
- RoHS Approved Type Available
- Regulated and Non-Regulated Versions Available
- Two Levels of I/O Isolation Available: 500VDC or 3KVDC



### DESCRIPTION

When board space is at a premium and voltage conversions require low power the LAN F series miniature converters offer superior performance for an economical price. A multitude of options and operating ranges allow you to custom-tailor these converters to your application requirements. These dc/dc converters provide up to 1.8 watts of power while maintaining specifications over the entire commercial operating temperature range.

### SPECIFICATIONS: LAN F Series

*All specifications apply @ ±25°C ambient unless otherwise noted*

#### INPUT SPECIFICATIONS

Input Voltage Range ... 5V nom. input.....	4.5 – 5.5VDC
12V nom. input.....	10.8 – 13.2VDC
15V nom. input.....	13.5 – 16.5VDC
24V nom. input.....	21.6 – 26.4VDC
Input Filter .....	Pi Network.

#### OUTPUT SPECIFICATIONS

Output Current .....	see table
Output Voltage .....	see table
Voltage Tolerance (nom. Line 100% load) .....	±5%
Line Regulation	
Regulated .....	±0.5% max.
Non-Regulated .....	±1.2%/ % of Vin
Load Regulation	
Regulated .....	±0.5%
Non-Regulated (load 20% to 100%) .....	±10%
Ripple/Noise (20 MHz BW).....	50mVp-p max.

#### PROTECTION

Short Circuit Protection .....	Continuous
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#### GENERAL SPECIFICATIONS

Efficiency	
Regulated .....	55 to 65% typ.
Non-Regulated.....	70 to 75% typ.
Switching Frequency .....	20KHz min.
Isolation Voltage (input to output)	
Standard.....	500VDC
“H” suffix.....	3000VDC

#### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature .....	-25°C to +71°C
Storage Temperature .....	-40°C to +100°C
Cooling .....	Free air convection

#### PHYSICAL SPECIFICATIONS

Dimensions.....	1.25(L) x 0.34(W) x 0.57(H) inches
	31.8(L) x 8.6(W) x 14.5(H) mm
Case Material .....	Non-conductive black plastic

*Due to advances in technology, specifications subject to change without notice*

**OUTPUT VOLTAGE / CURRENT RATING CHART**

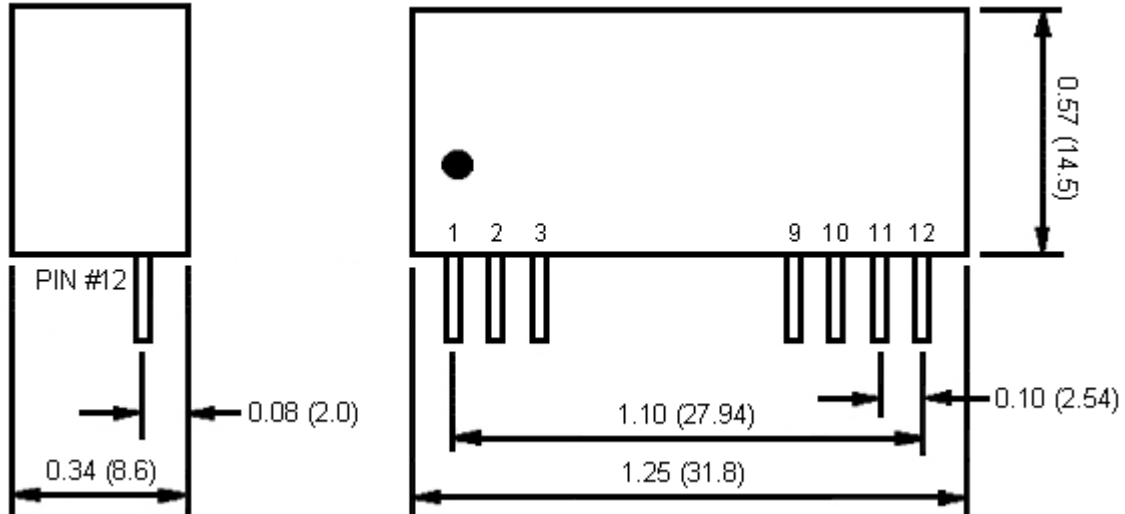
Model (See Note 2)	Input Voltage Range	Output Voltage	Output Current
LANF505N	5 VDC (4.5 – 5.5 VDC)	5 VDC	300 mA
LANF509N		9 VDC	170 mA
LANF512N		12 VDC	125 mA
LAN5515N		15 VDC	100 mA
LANF524N		24 VDC	65 mA
LANF505ND		±5 VDC	100 mA
LANF512ND		±12 VDC	60 mA
LAN5515ND		±15 VDC	50 mA
LANF1205N		12 VDC (10.8 – 13.2 VDC)	5 VDC
LANF1209N	9 VDC		170 mA
LANF1212N	12 VDC		125 mA
LANF1215N	15 VDC		100 mA
LANF1224N	24 VDC		65 mA
LANF1205ND	±5 VDC		100 mA
LANF1212ND	±12 VDC		60 mA
LANF1215ND	±15 VDC		50 mA
LANF1505N	15 VDC (13.5 – 16.5 VDC)		5 VDC
LANF1509N		9 VDC	170 mA
LANF1512N		12 VDC	125 mA
LANF1515N		15 VDC	100 mA
LANF1524N		24 VDC	65 mA
LANF1505ND		±5 VDC	100 mA
LANF1512ND		±12 VDC	60 mA
LANF1515ND		±15 VDC	50 mA
LANF2405N		24 VDC (21.6 – 26.4 VDC)	5 VDC
LANF2409N	9 VDC		170 mA
LANF2412N	12 VDC		125 mA
LANF2415N	15 VDC		100 mA
LANF2424N	24 VDC		65 mA
LANF2405ND	±5 VDC		100 mA
LANF2412ND	±12 VDC		60 mA
LANF2415ND	±15 VDC		50 mA

**NOTES**

1. All case and pin-to-case dimensions reference only unless otherwise noted.
2. All LANF models can be regulated, substitute "R" for "N" in last digits of part number (Ex: LANF2415R).
3. Add "H" onto the end of LANF part number for 3000VDC isolation (Ex: LANF2415NH).
4. For RoHS type add the suffix "-NL" to part number (Ex: LANF2415N-NL).

### MECHANICAL DRAWING

Unit: inches (mm)



Pin size (flat pin): 0.5mm wide  
0.25mm thick  
3.8mm long

PIN CONNECTION		
PIN	SINGLE OUTPUT	DUAL OUTPUT
1	+INPUT	+INPUT
2	NC	-OUTPUT
3	NC	NC
9	NC	NC
10	-OUTPUT	COM
11	+OUTPUT	+OUTPUT
12	-INPUT	-INPUT