Size (Single Output): 0.45in x 0.24in x 0.39in
Size (Dual Output): 0.50in x 0.50in x 0.37in

OPTIONS

- Input Voltage
- Output Voltage
- Single or Dual Output
- 3000VDC I/O Isolation
- Operating Temperature Range

FEATURES

- 100% Burned-in
- RoHS Compliant
- 1000VDC I/O Isolation
- Miniature Package Size
- Single and Dual Outputs
- 4 PIN SIP and 8 PIN DIL Package
- Unregulated Output Types
- Up to 1 Watt Output Power
- Custom Solutions Available
- UL 94V-0 Package Material
- Input 5, 12, 15, 24, and 48VDC
- 3000VDC I/O Isolation Option ("H" suffix)
- Recognized by UL60950-1
- Short Circuit Protection

DESCRIPTION

When high isolation is required and board space is at a premium, the LAN H series offers a superior solution at an economical price. The LAN H series is non-regulated and is housed in an industry-standard four pin SIP package or eight pin DIL package. This series also has 3000VDC I/O isolation (suffix "H") and -40ºC to +85ºC operating temperature (suffix "I") options available.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise	Output Power	Efficiency
LANH503Nx	5VDC (4.5-5.5VDC)	3.3VDC	303mA	100mVp-p	1W	70%
LANH505Nx		5VDC	200mA			70%
LANH509Nx		9VDC	110mA			75%
LANH512Nx		12VDC	84mA			78%
LANH515Nx		15VDC	67mA			80%
LANH505NDx		±5VDC	±100mA			82%
LANH509NDx		±9VDC	±56mA			75%
LANH512NDx		±12VDC	±42mA			75%
LANH524NDx		±24VDC	±34mA			70%
LANH1205Nx	12VDC (10.8-13.2VDC)	5 VDC	200mA	100mVp-p	1W	70%
LANH1209Nx		9 VDC	110mA			70%
LANH1212Nx		12 VDC	84mA			75%
LANH1215Nx		15 VDC	67mA			78%
LANH1203NDx		±3.3 VDC	±154mA			80%
LANH1205NDx		±5 VDC	±100mA			82%
LANH1209NDx		±9 VDC	±56mA			75%
LANH1212NDx		±12 VDC	±42mA			75%
LANH1224NDx		±24 VDC	±34mA			70%
LANH1505Nx	15VDC (13.5-16.5VDC)	5 VDC	200mA	100mVp-p	1W	70%
LANH1509Nx		9 VDC	110mA			70%
LANH1512Nx		12 VDC	84mA			75%
LANH1515Nx		15 VDC	67mA			78%
LANH1503NDx		±3.3 VDC	±154mA			80%
LANH1505NDx		±5 VDC	±100mA			82%
LANH1509NDx		±9 VDC	±56mA			75%
LANH1512NDx		±12 VDC	±42mA			75%
LANH1524NDx		±24 VDC	±34mA			70%
LANH2405Nx	24VDC (21.6-26.4VDC)	5 VDC	200mA	100mVp-p	1W	70%
LANH2409Nx		9 VDC	110mA			70%
LANH2412Nx		12 VDC	84mA			75%
LANH2415Nx		15 VDC	67mA			78%
LANH2403NDx		±3.3 VDC	±154mA			80%
LANH2405NDx		±5 VDC	±100mA			82%
LANH2409NDx		±9 VDC	±56mA			75%
LANH2412NDx		±12 VDC	±42mA			75%
LANH2424NDx		±24 VDC	±34mA			70%
LANH4805Nx	48VDC (43.2-52.8VDC)	5 VDC	200mA	100mVp-p	1W	70%
LANH4809Nx		9 VDC	110mA			70%
LANH4812Nx		12 VDC	84mA			75%
LANH4815Nx		15 VDC	67mA			78%
LANH4805NDx		±5 VDC	±100mA			75%
LANH4809NDx		±9 VDC	±56mA			75%
LANH4812NDx		±12 VDC	±42mA			75%
LANH4824NDx		±24 VDC	±34mA			75%

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS		Min	Typ	Max	Unit
INPUT SPECIFICATIONS						
Input Voltage Range	5VDC nominal input voltage		4.5	5	5.5	VDC
	12VDC nominal input voltage		10.8	12	13.2	
	15VDC nominal input voltage		13.5	15	16.5	
	24VDC nominal input voltage		21.6	24	26.4	
	48VDC nominal input voltage		43.2	48	52.8	
Voltage Tolerance				±10		%
Input Filter			Capacitor			
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Voltage Tolerance	100% Full Load				±5	%
Line Regulation	For 1% of Vin			1.2		%
Load Regulation	10% to 100% Load	3.3V, 5V outputs			15	%
		9V, 12V, and 15V outputs			10	
Output Power					1	W
Output Current			See Table			
Ripple & Noise (20MHz bandwidth)					100	mVp-p
Transient Response Settling Time	50% load step change			350		µs
PROTECTION						
Short Circuit Protection	Short term				1	Second
ENVIRONMENTAL SPECIFICATIONS						
Operating Case Temperature	Standard		-25		+70	ºC
	"I" Suffix(1)		-40		+85	
Storage Temperature			-40		+100	ºC
Humidity	Non-Condensing				95	%
Cooling			Free Air Convection			
MTBF	MIL-HDBK-217F @25ºC		3,500,000			Hours
GENERAL SPECIFICATIONS						
Efficiency	@Full Load		See Table			
Switching Frequency	Full load, nominal input			100		KHz
Isolation Voltage (Input to Output)	Standard			1000		VDC (2sec/0.5mA)
	"H" Suffix(2)			3000		
Isolation Resistance	@500VDC		1000			MΩ
PHYSICAL SPECIFICATIONS						
Weight			0.05oz (1.5g) typ.			
Dimensions (L x W x H)	Single Outputs		0.45in x 0.24in x 0.39in (11.43mm x 6.1mm x 9.91mm)			
	Dual Outputs		0.50in x 0.50in x 0.37in (12.7mm x 12.7mm x 9.40mm)			
Case Material			DAP			
SAFETY & EMC CHARACTERISTICS						
Safety Approvals	Recognized by UL 60950-1					

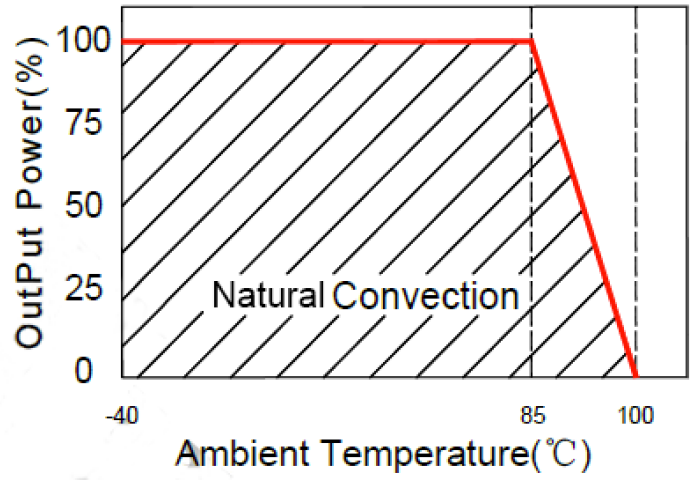
NOTES

1. For industrial grade operating temperature of -40ºC to +85ºC (no derating to +85ºC) add suffix "I" to the model number.
2. For 3000VDC I/O isolation add the suffix "H" to the model number
3. All case and pin-to-case dimensions reference only unless otherwise noted.
4. The LAN H series is housed in an industry standard four pin SIP package for single output models and five pin DIP package for dual output models.
5. Due to advances in technology, specifications subject to change without notice.
6. "x" in model number indicates package type. Package can either be 4 PIN SIP or 8 PIN DIL package.

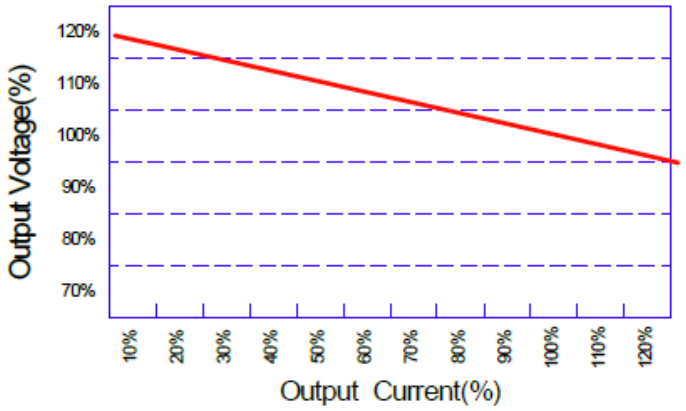
**Due to advances in technology, specifications are subject to change without notice.*

DERATING CURVES

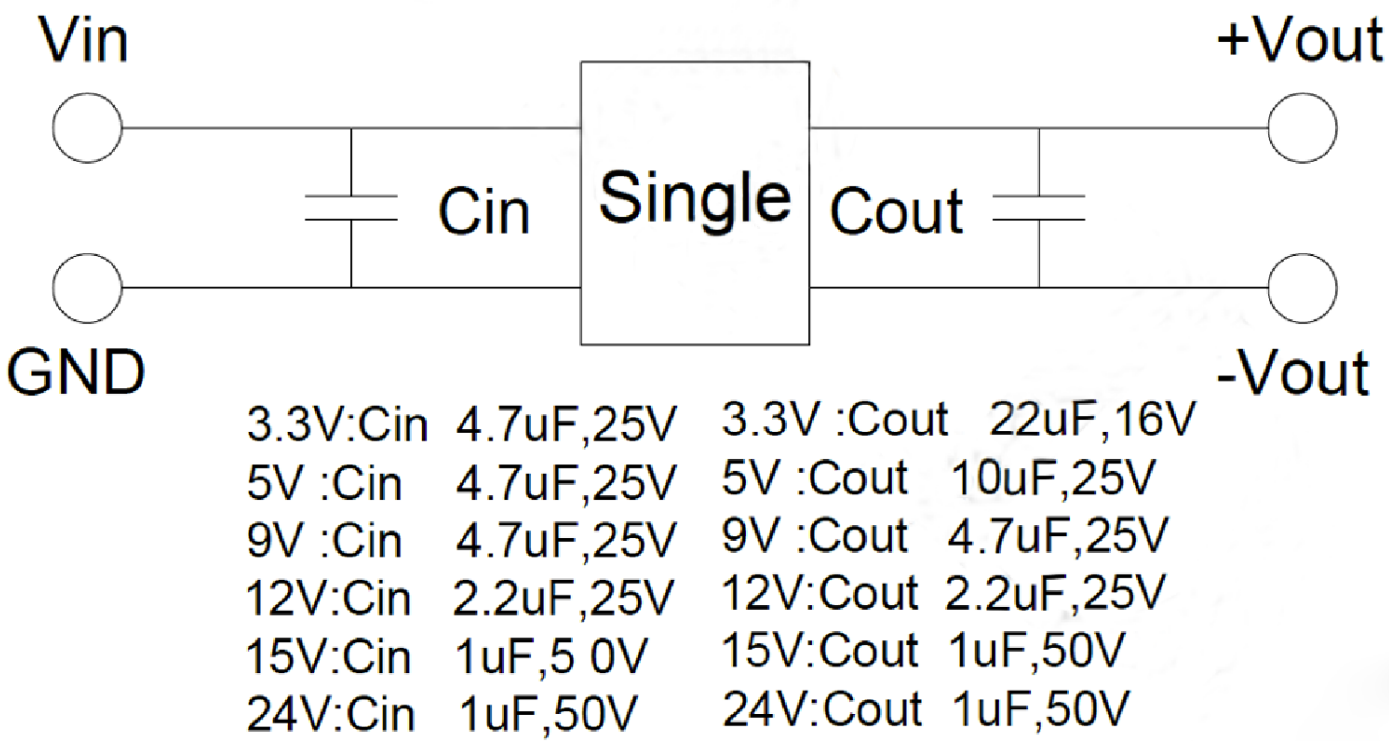
Temperature Derating Graph



Tolerance Envelope Graph



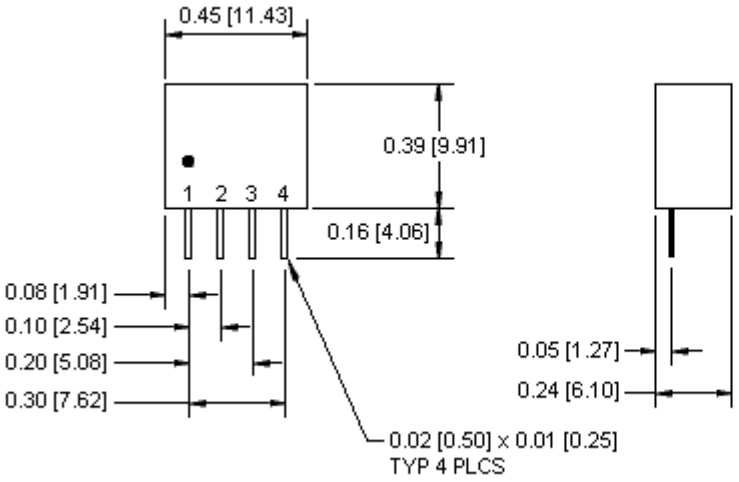
RECOMMENDED TEST CIRCUIT



3.3V:Cin	4.7uF,25V	3.3V :Cout	22uF,16V
5V :Cin	4.7uF,25V	5V :Cout	10uF,25V
9V :Cin	4.7uF,25V	9V :Cout	4.7uF,25V
12V:Cin	2.2uF,25V	12V:Cout	2.2uF,25V
15V:Cin	1uF,5 0V	15V:Cout	1uF,50V
24V:Cin	1uF,50V	24V:Cout	1uF,50V

MECHANICAL DRAWINGS

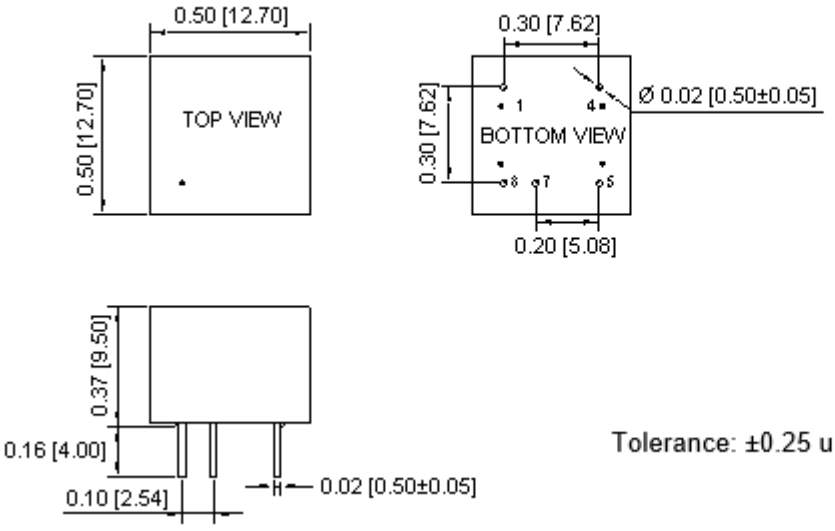
4 PIN SIP Package



PIN CONNECTION	
PIN	SINGLE
1	-Vin
2	+Vin
3	-Vout
4	+Vout

Units: inches (mm)

8 PIN DIL Package



PIN CONNECTION	
PIN	DUAL
1	-Vin
4	+Vin
5	+Vout
7	Common
8	-Vout

Tolerance: ±0.25 unless otherwise specified

COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001-2008 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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