

DI01D SERIES

1.2 to 15 Watts 1A Output Current, 3-Pin SIP Package Wide Input Voltage Range Non-Isolated DC/DC Converters



0.45" x 0.40" x 0.30" 3-Pin SIP Package

APPLICATIONS

- Wireless Networks
- Telecom/Datacom
- Industrial Control Systems
- Semiconductor Equipment
- Distributed Power Architectures
- Microprocessor Power Applications

FEATURES

- RoHS Compliant
- 1A Output Current
- Low Output Ripple & Noise
- Wide Input Voltage Range: 4.6 to 36VDC
- 1.2 to 15 Watts Output Power
- Efficiency up to 96%
- Single Outputs
- 3-Pin SIP Package: 0.45 x 0.40 x 0.30 Inches
- Pin-out Compatible with LM78XX Linear Regulators
- Short Circuit Protection
- UL94V-0 Package Material
- Wide Operating Temperature Range: -40°C to +85°C

DESCRIPTION

The DI01D series consists of high performance non-isolated DC/DC converters that deliver 1A of output current in a small 0.45" x 0.40" x 0.30" 3-Pin SIP package. This series features a wide operating temperature range of -40°C to +85°C, efficiency up to 96%, and short circuit protection. These converters are RoHS compliant and are suitable for use in wireless networks, telecom/datacom applications, industrial control systems, distributed power architectures, semiconductor equipment, and microprocessor power applications.



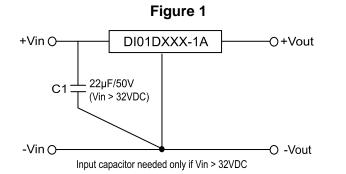
	based on 25°C, Nominal Input Vol reserve the right to change specifi				wise noted.	
SPECIFICATION	TEST CONI	-	Min	Тур	Max	Unit
INPUT SPECIFICATIONS				- J P		- Chit
Input Voltage Range				See	Fable	
Input Filter (<i>See Figure 1</i>)	Input capacitor needed only if Vin >32VDC		C filter			
OUTPUT SPECIFICATIONS						
Output Voltage				See	Гable	
Voltage Tolerance					±2	%
-	1.2 ~ 1.5VDC Output Models	LL to HL at full load			0.3	%
Line Regulation	1.8 ~ 15VDC Output Models				0.3	%
	$1.2 \sim 1.5$ VDC Output Models	– 10% to 100% full load			0.6	%
Load Regulation	1.8 ~ 15VDC Output Models				0.4	%
Output Power	1			1.2 ~ 1	5 Watts	
Output Current					1	Α
*	1.2 ~ 6.5VDC Output Models	without output capacitor			50	mVp-p
Ripple & Noise (20MHz BW)	9 ~ 15VDC Output Models				75	mVp-p
Capacitive Load					470	μF
Transient Response	50% load step change			250		μs
PROTECTION					I	
Short Circuit Protection			conti	nuous, aut	omatic rec	overy
GENERAL SPECIFICATION	S					-
Efficiency				See	Гable	
Switching Frequency				500		KHz
ENVIRONMENTAL SPECIFI	ICATIONS					
Operating Temperature	With derating		-40		+85	°C
Storage Temperature			-55		+125	°C
Humidity					95	%
Cooling				Free air c	onvection	1
MTBF	+25°C		5,000,000 hours			
	+71°C	MIL-HDBK-217F	1,000,000 hours			
PHYSICAL SPECIFICATION	IS					
Case Material			Nor	-conductiv	ve black pla	astic
Weight	0.07oz (2.0g)					
Dimensions (L x W x H)	0.45 x 0.40 x 0.30 inches (11.5 x 10.0 x 7.5 mm)					



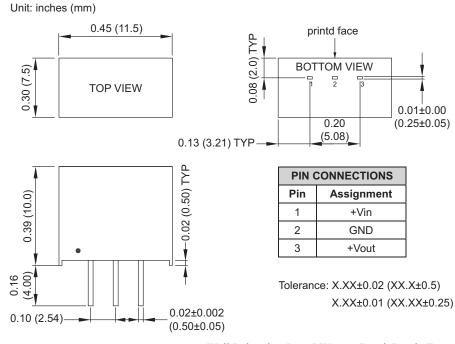
MODEL SELECTION TABLE							
Model Number	Input Voltage Range	Output Voltage	Output Current	Output Power	Efficiency		
Model Number	input voltage Kange	Output Voltage	Output Current	Output I ower	Min Vin	Max Vin	
DI01D1R2-1A	4.6 – 36 VDC	1.2 VDC	1A	1.2W	74%	62%	
DI01D1R5-1A	4.6 – 36 VDC	1.5 VDC	1A	1.5W	78%	65%	
DI01D1R8-1A	4.6 – 36 VDC	1.8 VDC	1A	1.8W	82%	69%	
DI01D2R5-1A	4.6 – 36 VDC	2.5 VDC	1A	2.5W	87%	75%	
DI01D3R3-1A	4.75 – 36 VDC	3.3 VDC	1A	3.3W	91%	78%	
DI01D05-1A	6.5 – 36 VDC	5 VDC	1A	5.0W	92%	84%	
DI01D6R5-1A	9 – 36 VDC	6.5 VDC	1A	6.5W	93%	87%	
DI01D09-1A	12 – 36 VDC	9 VDC	1A	9.0W	95%	90%	
DI01D12-1A	15 – 36 VDC	12 VDC	1A	12W	95%	92%	
DI01D15-1A	18 – 36 VDC	15 VDC	1A	15W	96%	94%	

Rev. A

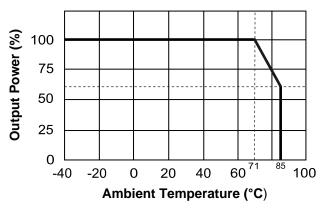
APPLICATION EXAMPLE



MECHANICAL DRAWING



DERATING CURVE



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Rev. A

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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