Size: 0.45in x 0.33in x 0.69in (11.5mm x 8.5mm x 17.5mm)

FEATURES

- 3 Pin SIP Package
- Pin-Out Compatible with LM78XX Linears
- High Efficiency Up to 96%
- Non-Isolated Converter
- Short Circuit Protection
- UL94V-0 Package Material
- RoHS Compliant
- Wide Input Voltage Ranges from 4.75~36VDC

DESCRIPTION

The DCDA1 series of non-isolated DC/DC converters offers 2A of output current in an ultra-compact 0.45" x 0.33" x 0.69" 3-Pin SIP package. This series consists of single output models with wide input voltage ranges from 4.75~36VDC. Each model in this series has high efficiency, short circuit protection, and is RoHS compliant. Please contact factory for order details.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Minimum Vin Efficiency	Maximum Vin Efficiency
DCDA1-0182	4.75~36VDC	1.8VDC	2A	89%	80%
DCDA1-0252	4.75~36VDC	2.5VDC	2A	91%	83%
DCDA1-0332	4.75~36VDC	3.3VDC	2A	90%	86%
DCDA1-052	6.5~36VDC	5.0VDC	2A	92%	89%
DCDA1-0652	9.0~36VDC	6.5VDC	2A	93%	91%
DCDA1-092	12~36VDC	9.0VDC	2A	94%	92%
DCDA1-122	15~36VDC	12VDC	2A	95%	93%
DCDA1-152	18~36VDC	15VDC	2A	96%	94%

SPECIFICATIONS

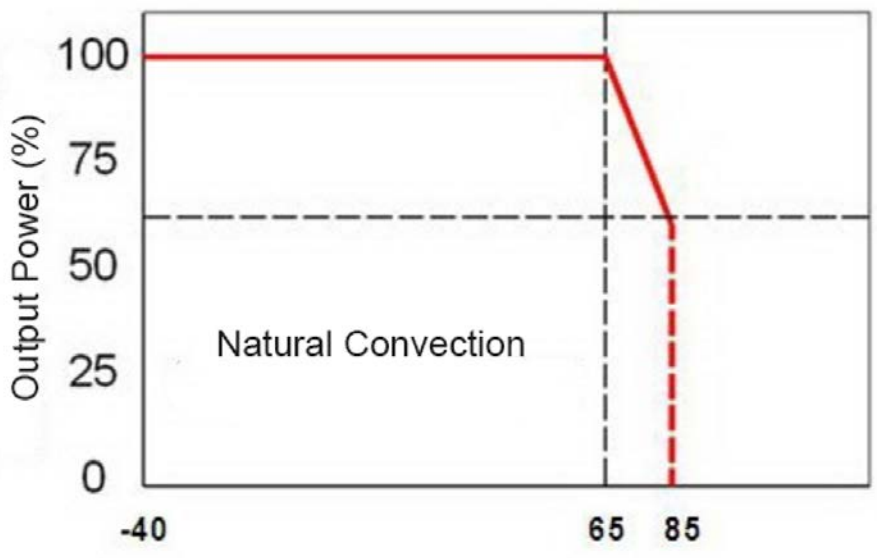
All specifications are based on 25°C, Nominal Input Voltage, and Rated Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range	See Table	4.75	24	36	V
Internal Input Filter	Capacitors		10		µ
No Load Input Current	Vin=24V		15	20	mA
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Tolerance			±2	±3	%
Line Regulation	Vin=Min to Max @Full Load		±0.5		%
Load Regulation	10% to 100% F.L.		±0.5		%
Current Limit	Duty=40%		325		%
Capacitive Load	ESR>1mΩ		470	1000	µF
Output Current				2	A
Ripple & Noise	Without Output Capacitor, 100% F.L. BW=20MHz			100	mVp-p
Transient Response Setting Time	50% Load Step Change		350		us
Temperature Coefficient	-40 to +85ºC			0.015	%/ºC
PROTECTION					
Short Circuit Protection		Indefinite, Automatic Recovery			
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	See derating graph.	-40	15	85	ºC
Storage Temperature		-55		125	ºC
Humidity	Non-Condensing			95	%
Derating		1.5%/K above +50ºC			
Cooling		Free Air Convection			
MTBF	Per MIL-HDBK-217F		167,890		Hours
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Switching Frequency			500		KHz
PHYSICAL SPECIFICATIONS					
Weight		0.14oz (4g)			
Dimensions (L x W x H)		0.45in x 0.33in x 0.69in (11.5mm x 8.5mm x 17.5mm)			
Case Material		Non-Conductive Black Plastic			

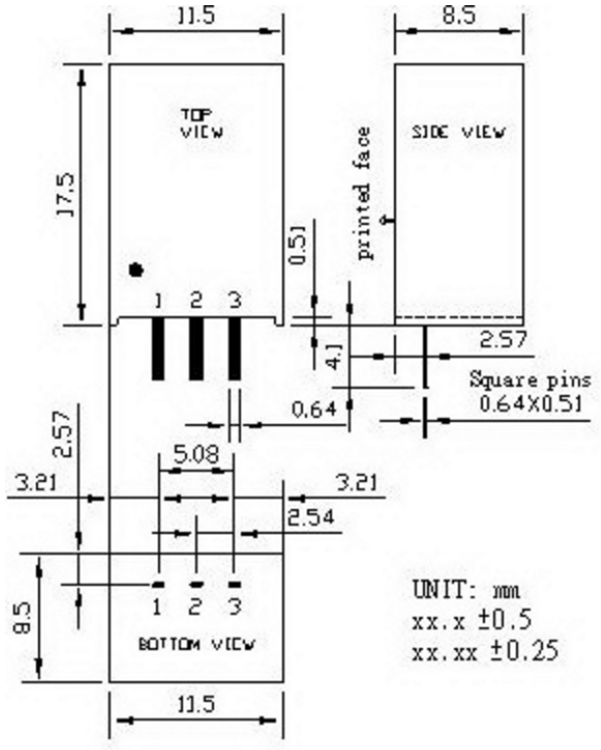
NOTES

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

TEMPERATURE DERATING CURVES



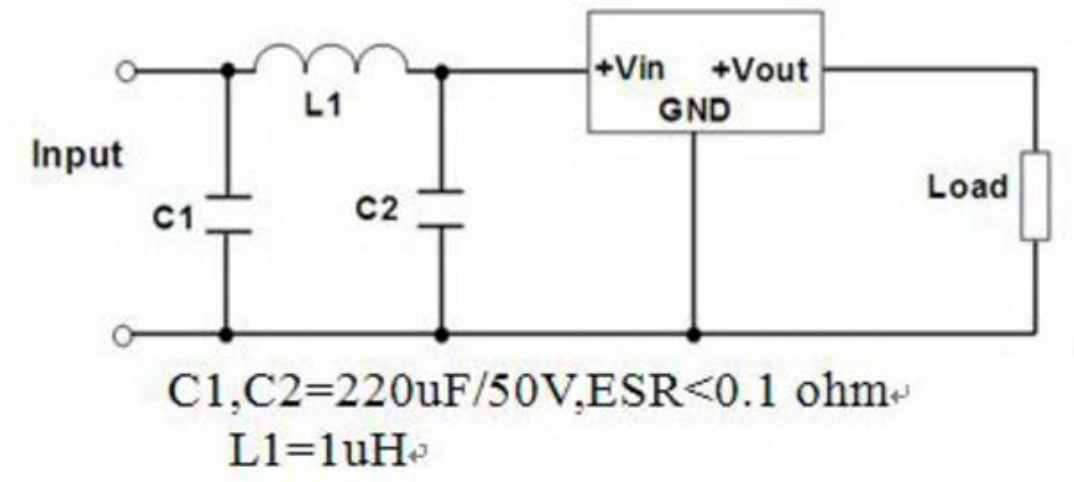
MECHANICAL DRAWINGS



Pin Connections

Pin	Single Output
1	+Vin
2	GND
3	+Vout

APPLICATION EXAMPLE



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.

Contact **Wall Industries** for further information:

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