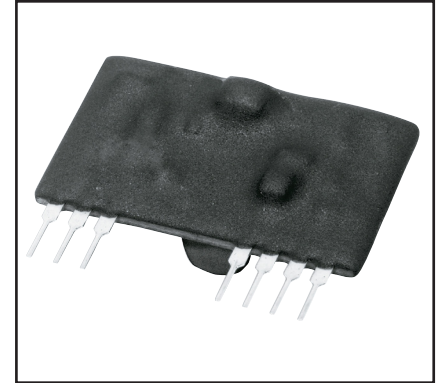
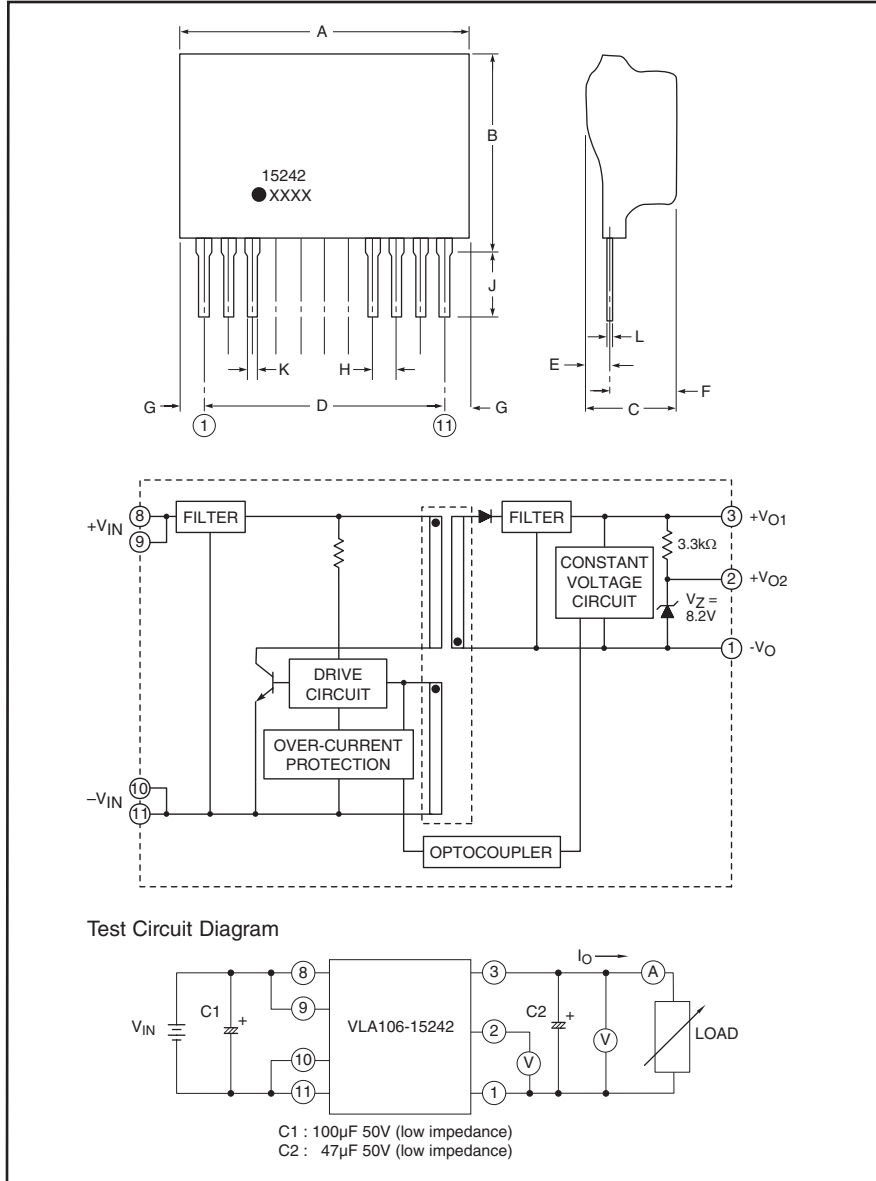




**THE DATASHEET OF
VLA106-15242**



Isolated DC/DC Converter



Description:

VLA106-15242 is a DC-DC converter. Its output power is 2.4W and the input is isolated from the output. The over-current protection circuit is built-in. This device is used for on-board power supplies in industrial control equipment.

Features:

- Input Voltage Range: 12.0 to 18.0V DC
- Output: +24V, 100mA (Output Power: 2.4W)
- Thin Profile, Lightweight Design
- Electrical Isolation Voltage Between Input and Output: 2500 V_{rms} for 1 Minute
- Built in Over-current Protection Circuit

Application:

On-board power supplies such as industrial equipment and control equipment.

Outline Drawing and Circuit Diagram

Dimensions	Inches	Millimeters
A	1.3	33.0
B	0.945	24.0
C	0.71	18.0
D	1.0	25.4
E	0.22	5.5
F	0.53	13.5
G	0.18	4.5
H	0.10	2.54
J	0.18 \pm 0.06	4.5 \pm 1.5
K	0.02+0.004/-0.002	0.5+0.1/-0.05
L	0.01+0.01/-0.002	0.25+0.2/-0.05

Note: All dimensions listed are maximums except D.



Powerex, Inc., 173 Pavilion Lane, Youngwood, Pennsylvania 15697 (724) 925-7272

VLA106-15242
Isolated DC/DC Converter

Absolute Maximum Ratings, $T_a = 25^\circ\text{C}$ unless otherwise specified

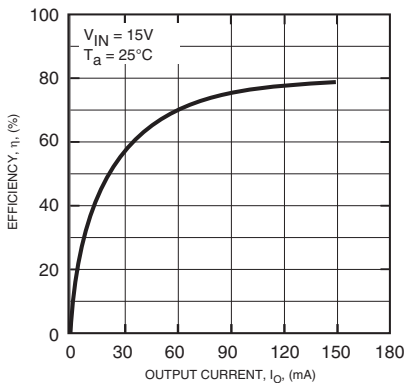
Characteristics	Symbol	VLA106-15242	Units
Input Voltage (Between Pins 8, 9, and 10, 11)	V_{IN}	18	Volts
Output Current (Between Pins 3 and 1)	I_O	100	mA
Operating Temperature (No Condensation)*	T_{opr}	-20 ~ 70	$^\circ\text{C}$
Storage Temperature (No Condensation)	T_{stg}	-20 to 85	$^\circ\text{C}$
Input-Output Isolation Voltage (AC, 1 Minute)	V_{ISO}	2500	V_{rms}

*Please refer to derating characteristics.

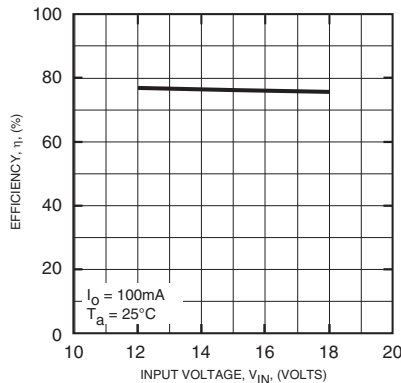
Electrical and Mechanical Characteristics, $T_a = 25^\circ\text{C}$, $V_{IN} = 24\text{V}$ unless otherwise specified

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Input Voltage	V_{IN}	Recommended Range	12	15	18	Volts
Output Voltage 1	V_{O1}	Between Pins 3 and 1, $I_O = 0 \sim 100\text{mA}$	22.8	24.0	25.2	Volts
Output Voltage 2	V_{O2}	Between Pins 2 and 1, Between Pins 3 and 2 : No Load	7.79	8.2	8.61	Volts
Input Regulation	R_{eg-I}	Between Pins 3 and 1, $I_O = 100\text{mA}$, $V_{IN} = 12.0 \sim 18.0\text{V}$	—	—	50	mV
Load Regulation	R_{eg-L}	Between Pins 3 and 1, $I_O = 0 \sim 100\text{mA}$	—	—	50	mV
Ripple Voltage	V_{P-P}	Between Pins 3 and 1, $I_O = 100\text{mA}$	—	—	150	mV
Efficiency	η	Between Pins 3 and 1, $I_O = 100\text{mA}$	—	75	—	%

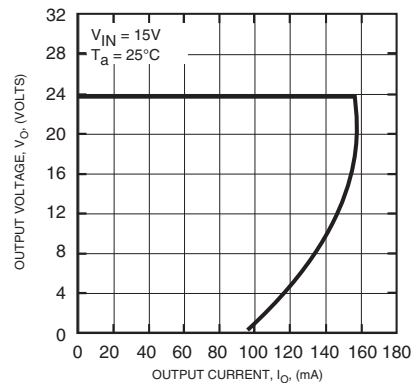
EFFICIENCY VS. OUTPUT CURRENT CHARACTERISTICS



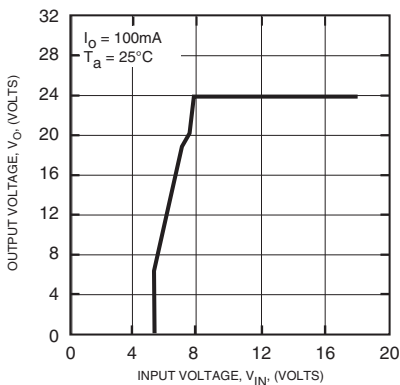
EFFICIENCY VS. INPUT VOLTAGE CHARACTERISTICS



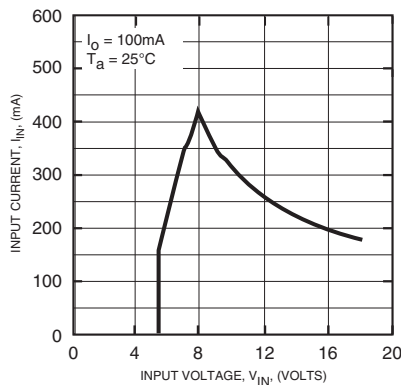
OUTPUT VOLTAGE VS. OUTPUT CURRENT CHARACTERISTICS



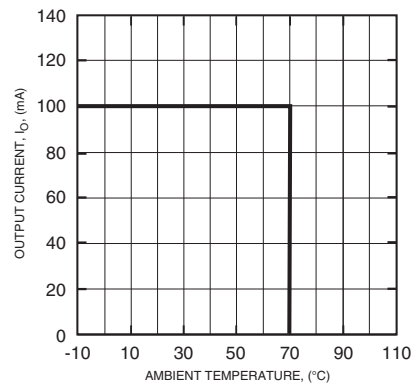
OUTPUT VOLTAGE VS. INPUT VOLTAGE CHARACTERISTICS



INPUT CURRENT VS. INPUT VOLTAGE CHARACTERISTICS



DERATING CHARACTERISTICS



Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

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