



Victor Power Technologies

Global DC/DC Converter Manufacturer

VDA20(W) Series

20 Watts



20W SINGLE OUTPUT
4:1 INPUT
ISOLATED & REGULATED
SIX SIDE SHIELD
DIP PACKAGE STYLE

- Efficiency up to 88%
- Operating Temperature: -40°C~+85°C
- 1,500VDC Isolation
- Over Voltage Protection
- Over Current Protection
- Industry Standard Pin out
- High Efficiency
- High Density
- RoHS

- 4:1 Input Nominal
 24VDC: 9~36
 48VDC: 18~72VDC

Product Program

Part Number	Input Voltage (VDC)		Output Voltage (VDC)	Output Current (mA)	Efficiency (% Typ)	Package Style
	Nominal	Range				
VDA20-24S12W	24	9~36	12	1670	87	DIP
VDA20-24S15W	24	9~36	15	1333	87	DIP
VDA20-24S24W	24	9~36	24	830	88	DIP
VDA20-24S28W	24	9~36	28	714	88	DIP
VDA20-48S12W	48	18~72	12	1670	87	DIP
VDA20-48S15W	48	18~72	15	1333	87	DIP
VDA20-48S24W	48	18~72	24	830	88	DIP
VDA20-48S28W	48	18~72	28	714	88	DIP

ISOLATION SPECIFICATIONS

Item	Min	Units
Isolation voltage	1500	VDC
Isolation resistance	100M	Ω
Isolation capacitance	300	pF

COMMON SPECIFICATION

Efficiency	See table
Switching frequency	300KHz, typ
Approvals and standard	IEC60950-1, UL60950-1, EN60950-1
Case material	Metal Case
Base material	Plastic Case
Potting material	Epoxy (UL94-V0)
Dimensions	50.8 X 25.4 X 11.2 mm (2.00 X 1.00 X 0.44 Inch)
Weight	26g (0.91oz)
MTBF	5 x 105 hrs

OUTPUT SPECIFICATION

Output power			20Watts
Voltage accuracy	Full load and nominal Vin		± 1%
Minimum load			10%
Line regulation	LL to HL at Full Load		± 0.2%
Load regulation	10% to 100% FL		± 0.5%
Cross regulation	Asymmetrical load 25% / 100% FL		± 5%
Ripple and noise	20MHz bandwidth	1%	50mVp-p
Temperature coefficient			±0.02% / °C, max
Transient response recovery time	25% load step change		400uS
Over load protection	Vimin ≤ Vi ≤ Vimax		120%,min
Short circuit protection			Hiccup, automatic recovery

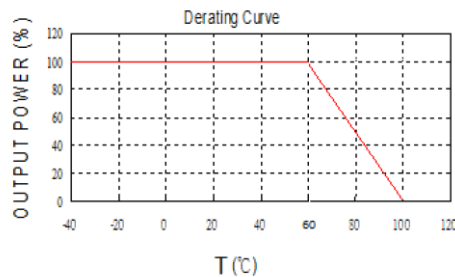
INPUT SPECIFICATION

Input voltage range	4:1	24V 48V	9 ~ 36 VDC 18 ~ 72 VDC
Input reflected ripple	Nominal Vin and full load		30mA _{p-p}
Start up time	Nominal Vin and constant resistive load	Power up	20mS typ
Output Voltage Trim (Up/Down)			± 10%
Remote ON/OFF(Optional) :	DC-DC ON		Open or 12V < Vr < 40V
(Positive logic)	DC-DC OFF		Vr < 0V
Remote off input current	Nominal Vin		2.0mA

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range	Standard	-40°C ~ +85°C (with derating)
Storage temperature range	Standard	-40°C ~ +105°C
Relative humidity		5% to 90% RH

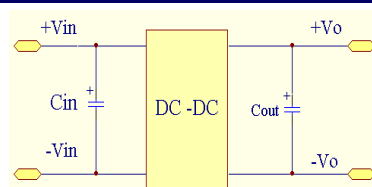
TYPICAL CHARACTERISTICS



FOOTPRINT DETAILS

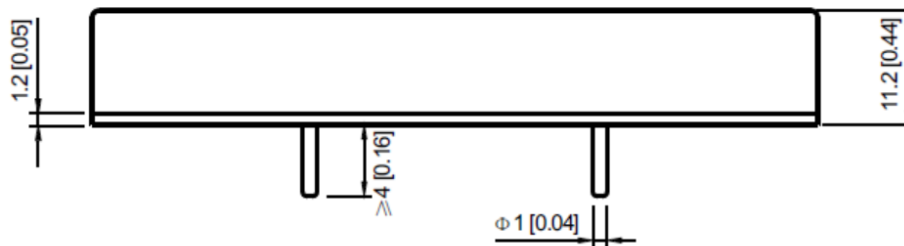
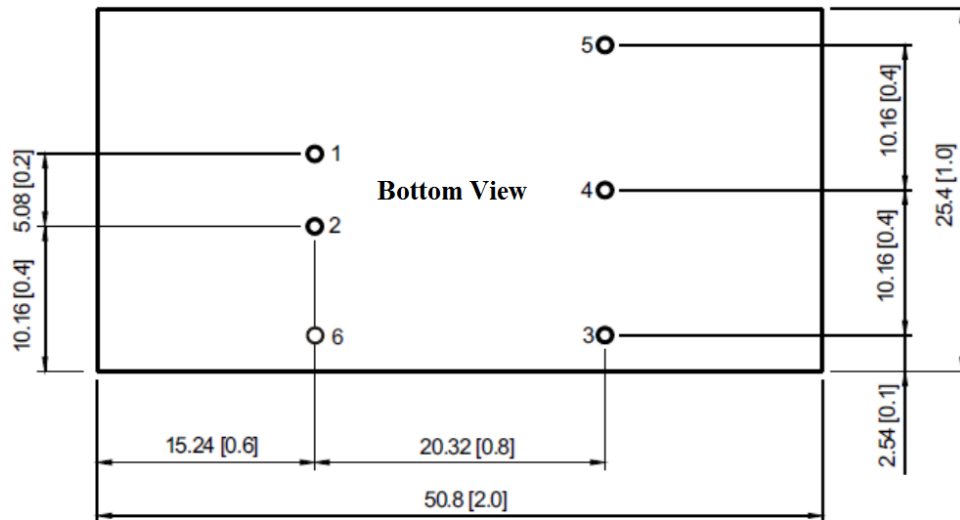
PIN	1	2	3	4	5	6
SINGLE	+Vin	-Vin	-Vout	Trim	+Vout	CTL

Recommended Circuit



1. Module plus input capacitance C_{in} could help to improve the electromagnetic compatibility , it is recommended C_{in} use 47uF-100uF electrolytic capacitor.
2. Modules plus the output capacitor C_{out} could help to improve the module's output ripple.
3. C_{out} recommend to take standard 100uf/A. The current means output current.

OUTLINE DIMENSIONS & RECOMMENDED FOOTPRINT



Dimensions: mm (Inch)
Pin tolerance: ± 0.2 (± 0.008)
Pin pitch tolerance: ± 0.25 (± 0.01)