V-INFINITY
a division of CUI INC

date 08/2007

PART NUMBER: VAD10 series

DESCRIPTION: DC/DC converter

features
- **7.5-10 W isolated output**
- **24-pin DIP shielded metal case**
- **efficiency to 89%**
- **wide 2:1 input range**
- **regulated outputs**
- **Pi input filter**
- **continuous short circuit protection**
- **no tantalum capacitor inside**

RoHS

model number	input voltage	output voltage	output current	input current no load	input current full load	efficiency
VAD10-D12-S2R5	9-18 VDC	2.5 VDC	3000 mA	40 mA	753 mA	83%
VAD10-D12-S3R3	9-18 VDC	3.3 VDC	3000 mA	40 mA	971 mA	85%
VAD10-D12-S5	9-18 VDC	5 VDC	2000 mA	40 mA	958 mA	87%
VAD10-D12-S12	9-18 VDC	12 VDC	835 mA	40 mA	949 mA	88%
VAD10-D12-S15	9-18 VDC	15 VDC	666 mA	40 mA	946 mA	88%
VAD10-D12-D12	9-18 VDC	±12 VDC	416 mA	20 mA	956 mA	87%
VAD10-D12-D15	9-18 VDC	±15 VDC	333 mA	20 mA	968 mA	86%
VAD10-D24-S2R5	18-36 VDC	2.5 VDC	3000 mA	30 mA	375 mA	83%
VAD10-D24-S3R3	18-36 VDC	3.3 VDC	3000 mA	30 mA	480 mA	85%
VAD10-D24-S5	18-36 VDC	5 VDC	2000 mA	30 mA	475 mA	88%
VAD10-D24-S12	18-36 VDC	12 VDC	835 mA	30 mA	470 mA	89%
VAD10-D24-S15	18-36 VDC	15 VDC	666 mA	30 mA	468 mA	89%
VAD10-D24-D12	18-36 VDC	±12 VDC	416 mA	20 mA	473 mA	88%
VAD10-D24-D15	18-36 VDC	±15 VDC	333 mA	20 mA	478 mA	87%
VAD10-D48-S2R5	36-75 VDC	2.5 VDC	3000 mA	15 mA	185 mA	83%
VAD10-D48-S3R3	36-75 VDC	3.3 VDC	3000 mA	15 mA	240 mA	85%
VAD10-D48-S5	36-75 VDC	5 VDC	2000 mA	15 mA	240 mA	87%
VAD10-D48-S12	36-75 VDC	12 VDC	835 mA	15 mA	235 mA	89%
VAD10-D48-S15	36-75 VDC	15 VDC	666 mA	15 mA	234 mA	89%
VAD10-D48-D12	36-75 VDC	±12 VDC	416 mA	10 mA	236 mA	88%
VAD10-D48-D15	36-75 VDC	±15 VDC	333 mA	10 mA	239 mA	87%

1. Suffix “-SMT” for SMT case style

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INPUT

input voltage range	12 V	9-18 V
	24 V	18-36 V
	48 V	36-75 V
under voltage lockout	12 Vin power up	8.8 V
	12 Vin power down	8 V
	24 Vin power up	17 V
	24 Vin power down	16 V
	48 Vin power up	34 V
	48 Vin power down	32 V
input filter		Pi type

OUTPUT

voltage accuracy		±1.0% max.
temperature coefficient		±0.05% / °C max.
ripple and noise	20MHz BW	75mV p-p max.
short circuit protection		continuous
line regulation[1]	single	±0.2% max
	dual	±0.5% max
load regulation[2]	single - DIP / SMD	±0.5% / ±1.0% max
	dual	±1.0% max
over voltage protection	2.5 V	3.6 V
	3.3 V	3.9 V
	5 V	6.2 V
	12 V	15 V

GENERAL SPECIFICATIONS

efficiency	see table
isolation resistance	10^9 Ohms
isolation voltage	1500 V dc min.
switching frequency	380KHz typ.
operating temperature range	-40°C to +85°C
storage temperature	-40°C to +125°C
case temp.	100°C max.
cooling	free air convection
dimensions	1.25x0.8x0.4 inches (31.8x20.3x10.2mm)
case material	black-coated copper with non-conductive base
weight	18.4 g

NOTES:

1. Measured from high line to low line
2. Measured from full load to 10% load

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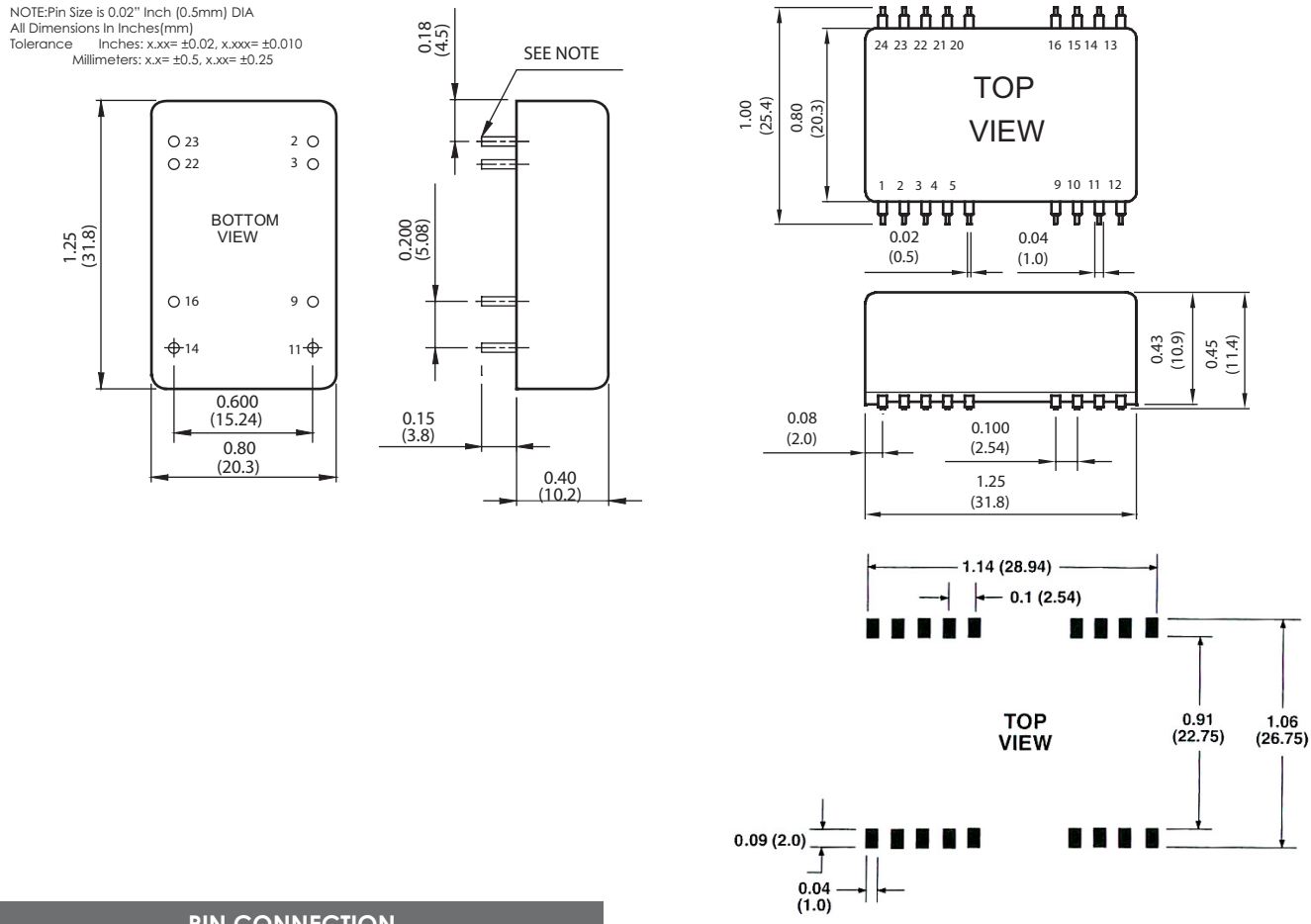
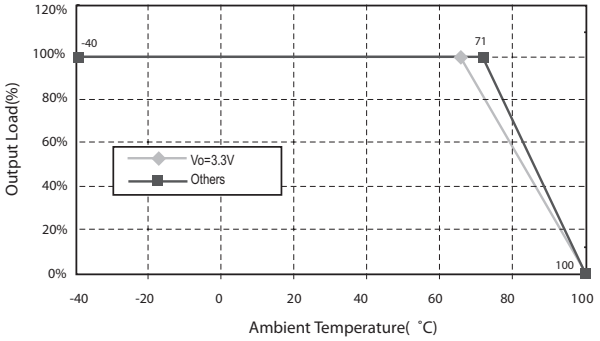
DIMENSIONS (mm)



PIN CONNECTION				
Pin	*Single Output*		*Dual Output*	
	DIP	*SMD*	*DIP*	*SMD*
1, 24	NP	NC	NP	NC
2, 3	-V Input		-V Input	
4,5	NP	NC	NP	NC
9	NP	NC	Common	
10	NP	NC	NC	
11	NC		-V Output	
12	NP	NC	NP	NC
13	NP	+V Output	NP	NC
14	+V Output		+V Output	
15	NP	-V Output	NP	NC
16	-V Output		Common	
20, 21	NP	NC	NP	NC
22, 23	+V Input		+V Input	

DERATING CURVE