

SERIES: VAD7R5**DESCRIPTION:** DC-DC CONVERTER**features**

- 7.5W isolated output
- efficiency to 83%
- regulated outputs
- continuous short circuit protection
- 24-Pin DIP package
- 2:1 input range
- Pi input filter



model number	input voltage	output voltage	output current	input current		efficiency
				no load	full load	
VAD7R5-D12-S3R3	9-18VDC	3.3VDC	1500mA	25mA	557mA	74%
VAD7R5-D12-S5	9-18VDC	5VDC	1500mA	25mA	801mA	78%
VAD7R5-D12-S12	9-18VDC	12VDC	625mA	25mA	762mA	82%
VAD7R5-D12-S15	9-18VDC	15VDC	500mA	25mA	762mA	82%
VAD7R5-D12-D5	9-18VDC	±5VDC	±750mA	30mA	791mA	79%
VAD7R5-D12-D12	9-18VDC	±12VDC	±310mA	30mA	753mA	83%
VAD7R5-D12-D15	9-18VDC	±15VDC	±250mA	30mA	753mA	83%
VAD7R5-D24-S3R3	18-36VDC	3.3VDC	1500mA	20mA	271mA	76%
VAD7R5-D24-S5	18-36VDC	5VDC	1500mA	20mA	396mA	79%
VAD7R5-D24-S12	18-36VDC	12VDC	625mA	20mA	381mA	82%
VAD7R5-D24-S15	18-36VDC	15VDC	500mA	20mA	381mA	82%
VAD7R5-D24-D5	18-36VDC	±5VDC	±750mA	25mA	386mA	81%
VAD7R5-D24-D12	18-36VDC	±12VDC	±310mA	25mA	377mA	83%
VAD7R5-D24-D15	18-36VDC	±15VDC	±250mA	25mA	377mA	83%
VAD7R5-D48-S3R3	36-72VDC	3.3VDC	1500mA	10mA	136mA	76%
VAD7R5-D48-S5	36-72VDC	5VDC	1500mA	10mA	195mA	80%
VAD7R5-D48-S12	36-72VDC	12VDC	625mA	10mA	190mA	82%
VAD7R5-D48-S15	36-72VDC	15VDC	500mA	10mA	190mA	82%
VAD7R5-D48-D5	36-72VDC	±5VDC	±750mA	15mA	193mA	81%
VAD7R5-D48-D12	36-72VDC	±12VDC	±310mA	15mA	188mA	83%
VAD7R5-D48-D15	36-72VDC	±15VDC	±250mA	15mA	188mA	83%

NOTE:

1. suffix "-SMT" for SMT case style

**SERIES:** VAD7R5**DESCRIPTION:** DC-DC CONVERTER**INPUT**

input voltage range	12V:	9-18V
	24V:	18-36V
	48V:	36-72V
input filter	Pi type	

OUTPUT

voltage accuracy	±2.0% max.	
voltage balance (dual)	±1.0% max.	
ripple & noise, 20MHz BW	100mV p-p max.	
temperature coefficient	±0.05%/°C	
short circuit protection	continuous	
line regulation	single/dual	±0.2% max.
load regulation	single	±0.5% max.
	dual	±1.0% max.

GENERAL SPECIFICATIONS

efficiency	see table	
isolation voltage	1500VDC min.	
isolation resistance	10 ⁹ Ohm	
switching frequency	300KHz, typical	
operating temperature range	-25°C to +71°C	
case temperature	100°C max.	
cooling	free-air convection	
storage temperature range	-40°C to +100°C	
dimensions	1.25x0.8x0.4 inches	
	(31.8x20.3x10.2mm)	
case material	black coated copper with non-conductive base	

NOTES:

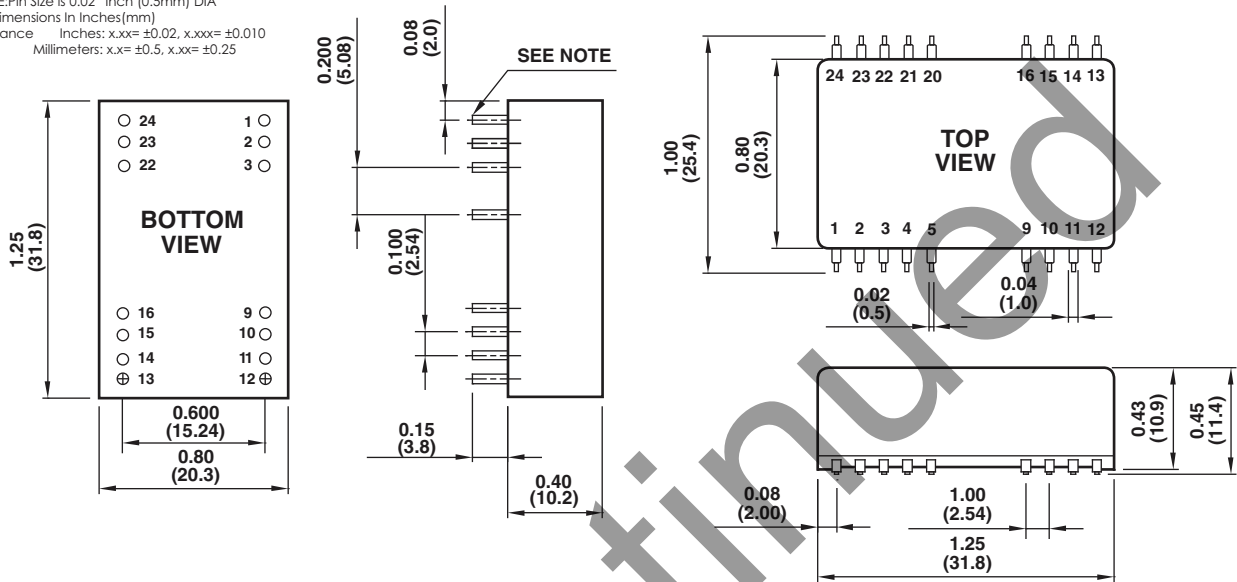
1. measured from high line to low line
2. measured from full load to 10% load
3. measured from full load to 1/4 load

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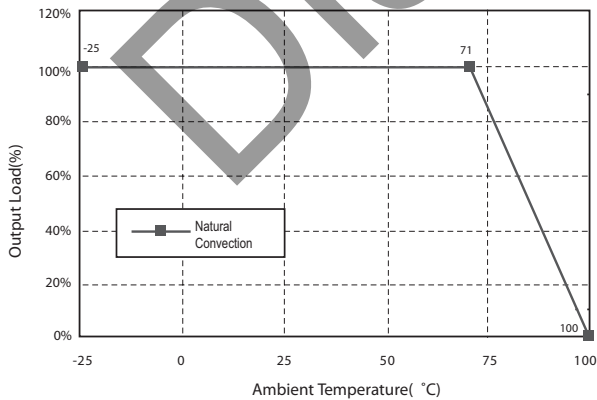
DESCRIPTION: DC-DC CONVERTER

DIMENSIONS (mm)

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA
All Dimensions In Inches (mm)
Tolerance Inches: x.xx= ±0.02, x.xxx= ±0.010
Millimeters: x.x= ±0.5, x.xx= ±0.25



DERATING CURVE



PIN CONNECTIONS

Pin	1500 VDC			
	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	NC		Common	
10, 15	NC		NC	
11	NC		-V Output	
12, 13	NP	NC	NP	NC
14	+V Output		+V Output	
16	-V Output		Common	
20, 21	NP	NC	NP	NC
22, 23	+V Input		+V Input	

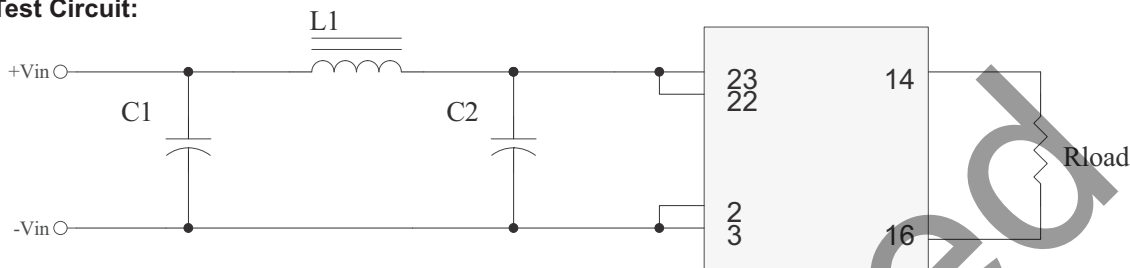
*NP-NO PIN *NC-NO CONNECTION WITH PIN

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APPLICATION NOTES

Test Circuit:

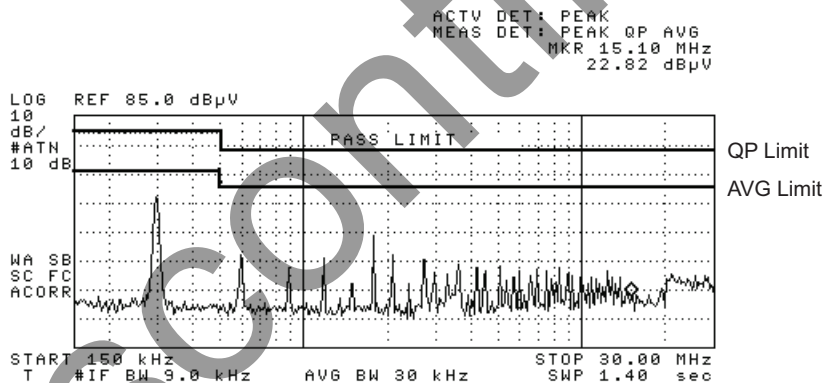


Test Results:

Test Condition: Nominal Vin (24VDC), Full Load (Resistive Load)

(1) Conducted EMI meet EN55022 Class A:

Model NO.	C1	C2	L1
VAD7R5-D24-S5	47uF/100V KY	NC	Short



(2) Conducted EMI meet EN55022 Class B:

Model NO.	C1	C2	L1
VAD7R5-D24-S5	47uF/100V KY	47uF/100V KY	5uH

