

**PART NUMBER:** VABD6**DESCRIPTION:** dc-dc converter**features**

- 5-6 W isolated output
- efficiency to 82%
- 2:1 input range
- regulated outputs
- Pi input filter
- 24-Pin DIP package
- meets EN55022 Class B, conducted
- remote ON/OFF option



model number	input voltage	output voltage	output current	input current		efficiency
				no load	full load	
VABD6-D12-S3R3	9-18VDC	3.3VDC	1000mA	7.5mA	393mA	70%
VABD6-D12-S5	9-18VDC	5VDC	1000mA	7.5mA	545mA	76%
VABD6-D12-S12	9-18VDC	12VDC	470mA	7.5mA	585mA	80%
VABD6-D12-S15	9-18VDC	15VDC	400mA	7.5mA	625mA	80%
VABD6-D12-D12	9-18VDC	±12VDC	±230mA	12mA	575mA	80%
VABD6-D12-D15	9-18VDC	±15VDC	±190mA	12mA	590mA	80%
VABD6-D12-D5	9-18VDC	±5VDC	±500mA	12mA	545mA	76%
VABD6-D24-S3R3	18-36VDC	3.3VDC	1000mA	5mA	197mA	70%
VABD6-D24-S5	18-36VDC	5VDC	1000mA	5mA	265mA	78%
VABD6-D24-S12	18-36VDC	12VDC	470mA	5mA	285mA	82%
VABD6-D24-S15	18-36VDC	15VDC	400mA	5mA	305mA	82%
VABD6-D24-D12	18-36VDC	±12VDC	±230mA	7.5mA	285mA	81%
VABD6-D24-D15	18-36VDC	±15VDC	±190mA	7.5mA	295mA	81%
VABD6-D24-D5	18-36VDC	±5VDC	±500mA	7.5mA	265mA	78%
VABD6-D48-S3R3	36-72VDC	3.3VDC	1000mA	2mA	98mA	70%
VABD6-D48-S5	36-72VDC	5VDC	1000mA	2mA	133mA	78%
VABD6-D48-S12	36-72VDC	12VDC	470mA	2mA	145mA	81%
VABD6-D48-S15	36-72VDC	15VDC	400mA	2mA	154mA	81%
VABD6-D48-D12	36-72VDC	±12VDC	±230mA	3mA	142mA	81%
VABD6-D48-D15	36-72VDC	±15VDC	±190mA	3mA	147mA	81%
VABD6-D48-D5	36-72VDC	±5VDC	±500mA	3mA	133mA	78%

**NOTES:**

1. suffix "HM" for 1.5K Vdc isolation
2. suffix "H" for 3K Vdc isolation
3. suffix "-SMT" for SMT case style
4. suffix "-1" for on/off control option

**PART NUMBER:** VABD6**DESCRIPTION:** dc-dc converter**INPUT**

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

**OUTPUT**

voltage accuracy		±2.0% max.
voltage balance (dual)		±1.0% max.
temperature coefficient		±0.05% / °C max.
ripple and noise, 20MHz BW	3.3V / 5V	100mV p-p max.
	12V / 15V	1% p-p max.
short circuit protection		continuous
line regulation	single/dual <sup>1</sup>	±0.5%
load regulation	single <sup>2</sup>	±0.5%
	dual <sup>3</sup>	±1.0%

**GENERAL SPECIFICATIONS**

efficiency		see table
isolation resistance		10 <sup>9</sup> Ohms
switching frequency		100kHz min.
isolation resistance		10 <sup>9</sup> Ohms
operating temperature range		-25°C to +71°C
storage temperature		-40°C to +100°C
cooling		free air convection
EMI/RFI		conductive EMI meet EN55022 class B
dimensions		1.25x0.8x0.5 inches (31.8x20.3x12.7mm)

**ISOLATION VOLTAGE**

500 VDC min	standard models
1.5K VDC min	suffix "HM" models
3K VDC min <sup>4</sup>	suffix "H" models

**CASE MATERIAL**

standard models	non-conductive black plastic
suffix "M" models <sup>5</sup>	black coated copper with non-conductive base

**NOTES:**

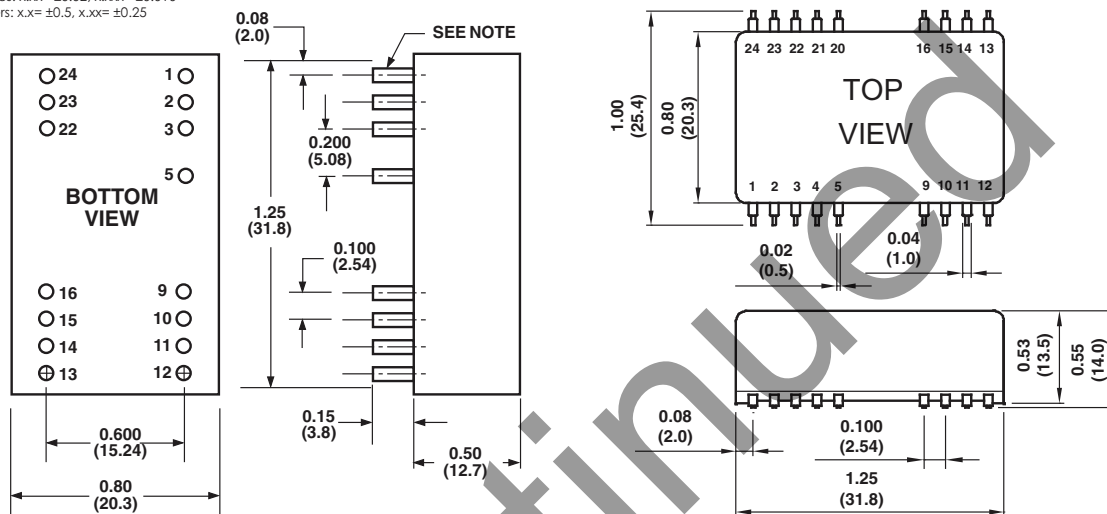
1. measured from high line to low line
2. measured from full load to 10% load
3. measured from full load to 1/4 load
4. non-conductive black plastic only
5. suffix "-1" to the model number with  
remote on/off for "H"/"HM" versions only

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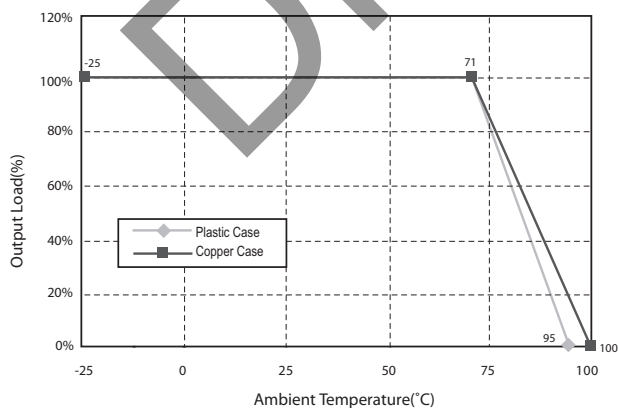
**DESCRIPTION:** dc-dc converter

**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	500 VDC				1.5K & 3K VDC				
	Single Output DIP	Single Output SMD	Dual Output DIP	Dual Output SMD	Pin	Single Output DIP	Single Output SMD	Dual Output DIP	Dual Output SMD
1,24	+V Input		+V Input		1,24	NP	NC	NP	NC
2,23	NC		-V Output		2,3	-V Input		-V Input	
3,22	NC		Common		4	NP	NC	NP	NC
4	NP	NC	NP	NC	5	NP/ Remote On/Off	NC/ Remote On/Off	NP/ Remote On/Off	NC/ Remote On/Off
5	NP	NC	NP	NC	9	NC		Common	
9	NP	NC	NP	NC	10,15	NC		NC	
10,15	-V Output		Common		11	NC		-V Output	
11,14	+V Output		+V Output		12,13	NP	NC	NP	NC
12,13	-V Input		-V Input		14	+V Output		+V Output	
16	NP	NC	NP	NC	16	-V Output		Common	
20	NP	NC	NP	NC	20,21	NP	NC	NP	NC
21	NP	NC	NP	NC	22,23	+V Input		+V Input	

\*NP-NO PIN \*NC-NO CONNECTION WITH PIN \*Remote On/Off (Option)